

BISP 170, Spring Quarter, 2023

BioScholars Seminar: Personalized and molecular medicine

Instructor: Dr. Kathleen French (kfrench@ucsd.edu)

Time: Tuesdays, 4:00 – 6:00 p.m.

Location: 3010 York Hall

General course description: *2 units, letter grade (or P/NP).* Each year, this student-organized seminar course considers several aspects of a current topic in biology. This year we'll consider new approaches to treating patients using personalized and molecular approaches to medical practice.

Contacting your instructor: Email: kfrench@ucsd.edu

Week	Date	Speaker	Topic
1	April 4	Dr. Jason Sicklick, UCSD School of Medicine, Surgery,	Personalized medicine
2	April 11	Dr. Kathy French, UCSD School of Biological Sciences, Neurobiology	Introduction to BISP 170 for 2023; how to read research papers
3	April 18	Dr. Brian McInnis, UCSD School of Public Health	Ethics in personalized medicine
4	April 25	Dr. Alistair Russell, UCSD School of Biological Science, Molecular Biology	Viruses in precision medicine
5	May 2	Dr. Hannah Carter, UCSD School of Medicine, Medicine	Cancer and sequencing the genome
6	May 9	Erick Armingol, UCSD School of Biological Science, Bioinformatics and Systems Biology	What are your cells saying to each other?
7	May 16	Dr. Ezra Cohen, UCSD School of Medicine, Moores Cancer Center, Oncology	Individualized therapeutics for tumors
8	May 23	Students	Each student will give a brief description of their final paper and why they chose that topic
9	May 30	No class meeting	
10	June 5	No class meeting	
		FINAL PAPER DUE BY FRIDAY, June 9 AT 5 P.M.	

Assignments/Grading

Students will earn a letter grade (or a grade of P/NP) in the course based on the following scheme:

1. **Attendance (24%)** This course will be held entirely in-person. Class sessions won't be recorded, so they won't be available after the session is over, and each student is expected to attend every class session. (Because we live in a real world, each student can have one absence without a penalty. More absences than that will significantly erode the quality of the class and can affect the final grade.) There will be an attendance sheet at every class. BE SURE TO SIGN THE ATTENDANCE SHEET at every

class session AND STAY FOR EVERY CLASS. The attendance sheet is the only confirmation of your attendance, so it's important.

2. ASSIGNMENTS: reading and discussion questions (24%)

Each speaker will choose one or two papers from the primary research literature, and these papers will be emailed to you one week before each talk. **MOST of my course communication with you will take place via e-mail to your @ucsd.edu address, so please keep your e-mail box available and check it regularly.**

To help prepare students for what they will hear each week, every student in the class should have read the assigned papers before the associated class session. After reading the paper(s), each student will write and email to Dr. French by 5 p.m. the day before the talk 2 interesting questions that are based on the papers they read and that they would like to discuss with the speaker. Please make the subject line on ANY email you send to me follow exactly this format:

BISP 170 [your name, last name first]--the topic of your message

Example: If Susan Smith wrote to me, her subject line would look like this:

BISP 170 Smith, Susan-- 2nd week questions.

If you will miss a class, you still need to read the papers and submit your two questions or you won't earn those points toward your final grade.

3. Final Paper (52%)

Near the end of the course, you will write a short paper that elaborates briefly on a **topic that was introduced or covered by one of speakers during the course**. Your paper will be turned in electronically, and it should be in Microsoft Word (not in PDF or any other format). It must be properly formatted (more about that later in the quarter), AND you need to cite at least ONE source that you found in the primary research literature. Of course you are welcome to cite the papers assigned for the class, but you must include at least one more source beyond the reading assignment for that topic.

That paper--and any others that are cited--must be from the peer-reviewed scientific literature (the CDC and Mayo Clinic sites are OK, websites like WebMD aren't). Format: 3 pages long, with 1-inch margins, written in 12-pt Times New Roman or 11-pt Arial, and double-spaced. You'll get more information later in the quarter. PAPERS ARE DUE AT MY COMPUTER BY 5 P.M. ON FRIDAY, JUNE 9.

Learning Goals

- Polish your oral and written skills that will contribute to successful scientific communication in your future.
- Promote your development as an excellent scientist who is also sensitive to the social, political, cultural, and ethical contexts of scientific research
- Introduce you to professionals working at or near UCSD who are doing research that addresses the scientific, medical, and ethical challenges in current research
- Pique your interest in biomedical research!