Course Syllabus

IMUN 5070 IMMUNOPATHOLOGY SPRING 2025

Tuesdays 1:45 - 3:45 pm and Thursdays 1:45pm – 3:45 pm
Location: 11-102B in 3600 CCB

COURSE DIRECTORS
Laura Su, MD, PhD
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COURSE TA for 2025
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COURSE GOALS: There are several goals for this course. First, building on the IMUN 5060 foundation, we will further introduce you to basic principles, and current and emerging concepts in immunology. Second, through the student-run journal clubs, we will work together to improve your ability to critically evaluate primary literature, orally present your thoughts to an audience, and engage in scientific discussion.

COURSE DESCRIPTION: Each class will comprise of a faculty-led lecture (~ 45 minutes) and a student-led journal club (~ 45 minutes). The journal club will focus on a faculty-assigned manuscript and will include a formal presentation. The presenter will actively engage other students. The lecturer will guide a closing discussion in the last 10-15 minutes.

READINGS: Each faculty is expected to assign one journal club paper at least one week prior to their lecture. Students should read any reviews and additional primary papers provided by the faculty as valuable background material.

JOURNAL CLUB EXPECTATIONS: Students will be assigned to present a paper for the journal club portion of each class. These students are expected to meet with the faculty member (who assigned the paper) in advance of the presentation. Students should present: (1) a few introduction slides on the background and the problem addressed or hypothesis tested, (2) schematics outlining experimental approaches or procedures for those that are complicated and/ or not routine, (3) essential figures or figure panels, (4)

few discussion/closing slides to place the authors' findings within the context of the immediate field, immunology, or biology as a whole. Bring up new questions you would answer and experiments that you would do next. Presenters can call on other students and should be critical of the data by pointing out potential flaws. Non-presenters should ask questions and engage in discussion.

FACULTY EXPECTATIONS: In addition to providing reading materials ahead of time, lecturing, moderating journal clubs, and guiding the closing discussion, faculty are expected to be available to meet with students ahead of journal club presentations. Faculty should also provide feedback to the journal club presenters immediately after class.

GRADING POLICY
- 60%: Journal club presentation
- 40%: Class participation

DISCUSSION POINTS: For each paper, all students should prepare a 'discussion-point' which they should (1) submit in writing before the class and (2) discuss during the journal club presentation. Discussion-points are flexible and can be structured into two parts: (Part-A) a question, interesting point, issues with experimental approach, issues with data, or anything that the student finds interesting in the paper, and (Part-B) a short paragraph about how the issue raised in part-A may be addressed or why the issue is relevant/important. Each student can bring up their discussion-point when the presenter of the manuscript reaches the relevant figures/sections or at the end of the paper presentation. Submit through the Discussion tab on Canvas, due the day before the lecture by 11:59 PM.

ABSENCE: Please contact the course directors and the TA for any absences. Students may be excused for two absences throughout the entire course. Additional absences require approval from the course directors and will be granted only in exceptional cases (e.g., illness with a doctor's note). 10% of the total grade will be deducted for each unexcused absence.

SCHEDULE

15-Jan	Introduction	Laura Su and Yeong Shin Yim
20-Jan	no class	
22-Jan	Immune landscape in the brain	Yeong Shin Yim
27-Jan	Antigen-driven immunoglobulin gene diversification	Craig Bassing
29-Jan	Microfluidics for Cell and EV Manipulation	Jina Ko
3-Feb	Engineering Tolerance	Jim Riley
5-Feb	Microbiome-mediated Immune Defenses	Michael Abt
10-Feb	B cell in Health and Disease	Amit Bar-Or
12-Feb	Immunometabolites and metabolomics	Caroline Bartman

17-Feb	Protective and Pathologic Immune Responses to Parasites	Phillip Scott
19-Feb	Regulation of Immune cell programming by metabolite utilization	Will Bailis
24-Feb	Evolution of the immune system	Oriol Sunyer
26-Feb	Chromatin regulation of immunity	Hajera Amatullah
3-Mar	Circadian regulation of the immune response	Shaon Sengupta
5-Mar	The role of microglia in neurogenerative disease.	Michael Haney
10-Mar	Spring break	
12-Mar	Spring break	
17-Mar	Origins for the sex bias of autoimmune diseases	Montserrat Anguera
19-Mar	The Mucosal Immune System	Ken Cadwell
24-Mar	Comparative considerations in immunology	Jenni Punt
26-Mar	Inflammasome assembly, function, and dysfunction	Scott Canna
31-Mar	Role of cytosolic nucleic acid sensors in immunity	Jonathan Miner
2-Apr	Immune-mediated bone marrow failure"	Daria Babushok
7-Apr	Cellular immunotherapies for the treatment of autoimmune conditions	Christoph Ellebrecht
9-Apr	TBD	Nilam Mangalmurti
14-Apr	Mechanisms of Primary Immune Dysregulation	Sarah Henrickson