

Immunity, Infection and Inflammation Track Critical Readings Immunology Course TIII 505BQ 001

Course Director: Yosuke Kumamoto

This class will meet on **Wednesdays at 10:00-10:30 AM in Cancer Center H1196.**

COURSE DESCRIPTION/OBJECTIVES:

1. To illustrate principles of immunology via an experimental approach through reading research papers in immunology journals.
2. To illustrate how to test hypotheses in immunology: Why are they doing the experiment? How does one interpret the data? Does the data prove the hypothesis and objectives of the study?

COURSE FORMAT:

A faculty-assigned paper will be presented by each student. The student will present the background necessary to understand the paper, data (including supplementary data) and conclusions from the paper, and questions/points for discussion with the rest of the class. An accompanying ("See also") paper is also assigned to help students understand the background of the study, which can be summarized in the introduction slide(s).

FACULTY AND STAFF:

FACULTY	DEPARTMENT	OFFICE	E-MAIL ADDRESS
Yosuke Kumamoto, PhD	Pathology, Immunology and Lab. Medicine	973-972-2148	yosuke.kumamoto@rutgers.edu
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EVALUATION METHODS & COURSE GRADING

Assessment/Evaluation:

-Attendance is absolutely required for ALL classes. Anyone missing a class must remediate the class privately with the supervising instructor (Dr. Kumamoto). Only illness or extenuating circumstances will be considered for remediation. Missing a class without remediation will result in a lower letter grade for the class.

-Everyone taking the class for a grade and credit must present a paper to the class. Supporting papers may be given for the presenter to understand the material and make a more comprehensive presentation. **We encourage students who are presenting to contact the**

sponsoring faculty member a week before their presentation to receive advice on their presentation.

-All students are expected to participate in discussing the paper after the presentation.

Estimation of Weighted Course Average:

Exam/Quizzes	Weight (%)
Paper presentation	50
Class attendance/participation	50
Total	100%

CLASS SCHEDULE:

3/4/2026 – Leianna Brune (Facilitator: Yosuke Kumamoto)

Protein crystallization promotes type 2 immunity and is reversible by antibody treatment.

Science 364:eaaw4295 (2019). PMID 31123109

See also:

Modes of type 2 immune response initiation. *Immunity* 56:687 (2023). PMID 37044059

3/11/2026 – Daniel Chacko (Facilitator: Nicholas Bessman)

Mapping the T cell repertoire to a complex gut bacterial community. *Nature* 621:162 (2023).

PMID 37587342

See also:

Induction of intestinal Th17 cells by segmented filamentous bacteria. *Cell* 139:485 (2009). PMID 19836068

3/18/2026 – Chris Hegde (Facilitator: Robin Stephens)

Effector and stem-like memory cell fates are imprinted in distinct lymph node niches directed by CXCR3 ligands. *Nat Immunol* 22:434 (2021). PMID 33649580

See also:

Early events governing memory CD8+ T-cell differentiation. *Int Immunol* 22:619 (2010). PMID 20504887

3/25/2026 – Vishwa Khatri (Facilitator: Veronika Miskolci)

Mechanosensing regulates tissue repair program in macrophages. *Sci Adv* 10:eadk6906 (2024). PMID 38478620

See also:

Macrophages in tissue repair, regeneration, and fibrosis. *Immunity* 44:450 (2016). PMID 26982353

4/1/2026 – Natasha Machera (Facilitator: Dane Parker)

Influenza-induced monocyte-derived alveolar macrophages confer prolonged antibacterial protection. *Nat Immunol* 21:145 (2020). PMID 31932810

See also:

Trained immunity: adaptation within innate immune mechanisms. *Physiol Rev* 103:313 (2023). PMID 35981301

4/8/2026 – Deepika Mahesh (Facilitator: Darin Wiesner)

Dendritic cells regulate the innate-adaptive balance in lymph nodes for optimal host defense. *Cell* 189:548 (2026). PMID 41421356

See also:

Lymph Nodes: The Unrecognized Barrier against Pathogens. *ACS Infect Dis* 4:1158 (2018). PMID 29856591

4/15/2026 – Michael Poppell (Facilitator: Jason Weinstein)

IL-21 shapes germinal center polarization via light zone B cell selection and cyclin D3 upregulation. *J Exp Med* 220:e20221653 (2023). PMID 37466652

See also:

T-cell help in the germinal center: homing in on the role of IL-21. *Int Immunol* 36:89 (2024). PMID 38164992

Course Grading:

A	Outstanding	4.0
B+	Very Good	3.5
B	Good	3.0
C+	Marginal	2.5
C	Poor	2.0
F/IN	Failing/Incomplete	0.0

CODE OF PROFESSIONAL CONDUCT (COURSE EXAMINATIONS):

All students have a fundamental responsibility for maintaining academic integrity and intellectual honesty in their academic and professional endeavors. They are expected to observe generally accepted principles of scholarly work, to submit their own rather than another's work, to refrain from falsifying data, to acknowledge the published work of others in an appropriate manner, and to refrain from receiving or giving aid during examinations or other work requiring independent effort. When submitting written material, students take full responsibility for the originality of all work not otherwise identified by appropriate acknowledgments and imply that both the ideas and words used are their own. All students are expected to respect the property of faculty and other students, and not use research equipment or laboratory supplies of others without permission.

Specific examples of appropriate behavior in examinations exams are given below:

Examinations: The purpose of an examination is to assess a student's knowledge of a topic defined within a course or courses. **Unless given explicit written instructions to the contrary, a student must work without assistance on an examination.**

- **Classroom examination:** Each student will provide answers to questions as directed. Unless otherwise stated, no material (books, calculators, computers, communication devices) of any kind can be used during an examination.
- **Take-home examination:** Each student will provide answers as directed. Unless otherwise stated, research and writing must be done individually without assistance or exchange of information with others. The ability to use source material in the research of answers will be defined for each examination. But, unless stated otherwise, all source material should be cited appropriately as outlined below.

NOTE: THESE POLICIES ALSO HOLD TRUE FOR ALL EXAMS ADMINISTERED REMOTELY.

To view the full policy for the Code of Professional Conduct in the School of Graduate studies regarding examinations, research and oral presentations follow this link:

http://njms.rutgers.edu/sqs/current_students/ac_integ.php

ACADEMIC WARNING POLICY:

http://njms.rutgers.edu/sqs/documents/policys/SGS_Academic_Warning_Policy.pdf

Each program shall clearly inform students of the criteria for satisfactory academic performance. Academic standing will be reviewed each semester by the Program's Academic Standing Committee. Students who receive less than an average grade of "B" in the designated Core course(s) or have a GPA less than 3.0 will receive an academic warning notice. Students performing below satisfactory levels of proficiency as outlined by the program may also receive a written warning notice. The written warning states the problem(s), outlines those measures needed for improvement and sets a deadline for compliance. Letters informing students of an academic warning will be sent within 30 calendar days of the end of the semester. A request will be made to students receiving academic warning letters to meet with the Program Director and/or the Academic Standing Committee.

COURSE ADD/DROP POLICY:

Policy for the Addition of a Course:

Students may add courses with the approval of the instructor (when required) and the program director. A student wishing to add a course after the general registration period has closed, must complete the "Add/Drop/Withdraw" form and have appropriate approval of the course instructor (when required) and program director prior to the start of the course. Registration will not be permitted beyond the first week of a course. Credit will not be given for courses in which the student was not registered.

Add Course Form Link:

<https://na2.docuSign.net/Member/PowerFormSigning.aspx?PowerFormId=96fcae95-bc67-45fb-8da3-11300ded2e99>

Policy for Dropping a Course:

Students may drop courses with approval of the instructor (when required) and the program director. Students submitting a completed "Add/Drop/withdraw" form to the SGS Registrar's office within 10 academic days of the start of the course will receive a full tuition refund and the course will not appear on their official transcript. The drop period of 1-10 *academic days, is distinguishable from the withdrawal period in that the drop period is without penalty. A completed and approved Add/Drop/Withdraw" form(s) must be received by the Registrar's office within the time periods set forth above in order for a course(s) to be "dropped".

Drop Course Form Link:

<https://na2.docuSign.net/Member/PowerFormSigning.aspx?PowerFormId=c45635ca-6a1e-4936-b436-337b211b8433>

***An academic day is defined as a day that the SGS campus at which the student is enrolled is open for business.**

REASONABLE ACCOMMODATIONS AT RUTGERS SCHOOL OF GRADUATE STUDIES:

Rutgers School of Graduate Studies is committed to providing equitable access to learning opportunities to students with documented disabilities (e.g. mental health, attentional, learning, chronic health, sensory, or physical). To ensure access to this please contact Student Affairs, to engage in a confidential conversation about the process for requesting reasonable accommodations in the classroom setting. Students are encouraged to register with the Office of Student Affairs as soon as they begin their program. Accommodations are not provided retroactively. Rutgers School of Graduate Studies encourages students to access all resources available through the School for consistent support and access to their program.

More information can be found online at

http://njms.rutgers.edu/education/student_affairs/student_support/disability_services.cfm.

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must complete the ODS registration form: <https://webapps.rutgers.edu/student-ods/forms/registration> and contact the RBHS Office of Disability Services at 973-972-5396 or

cindy.poorepariseau@rutgers.edu to make an appointment for an intake interview. You will also be asked to provide documentation of your disability:

<https://ods.rutgers.edu/students/documentation-guidelines> .

If the documentation supports your request for reasonable accommodations, the Office of Disability Services will provide you with a Letter of Accommodations. This Letter will be used to notify appropriate school personnel about the accommodations you are qualified to receive. To begin this process, please complete the Registration form on the ODS web site at:

<https://webapps.rutgers.edu/student-ods/forms/registration> .

TEACHER-LEARNER POLICY RUTGERS SCHOOL OF GRADUATE STUDIES:

The Rutgers SGS Newark Health Science Campus strongly believes that teaching and learning should take place in a climate of mutual respect where students and faculty are equally responsible for maintaining a professional and collegial environment. An environment where students are evaluated based upon accomplishment, professionalism and academic performance. We are committed to maintaining a positive learning environment and the highest standards of behavior in the teacher-student relationship.

To view the full Teacher-Learner policy for the School of Graduate studies, please follow this link: https://njms.rutgers.edu/sgs/current_students/docs/Teacher%20Learner%20Policy.pdf