

Course Title: Mucosal Immunology Syllabus – Fall 2017; Aug 21-Sept 25, [CG 56 which is on the ground floor of the communicate building](#)

Director, Dorina Avram, PhD, Department of Medicine, Co-Director, Lei Jin, PhD, Department of Medicine (College of Medicine)

**Objective:** At the completion of the course the students will have a solid understanding of concepts of mucosal immunology in health and in the context of diseases associated with mucosal sites, and will be able to critically evaluate scientific literature in this specific scientific field. Additionally, the students will learn to formulate hypothesis-driven specific aims for a research project in relation to the topics presented in the class.

**Organization.** The course uses an interactive and engaging approach for defining problems, discussion and hypothesis generation. There are five modules, each with two sessions of 1.5hrs. The first session will have a faculty presentation, followed by discussion by the students. The second session is a student-led presentation, consisting in 1-2 papers presentation on the specific topic introduced by the faculty in the first session. All the students in the class are expected to participate in the critical discussion of the paper(s) and their participation is evaluated and has an impact on the grade. 1-2 students serve as moderators of the discussion. The faculty choose the papers with the highest impact in the field.

In addition the students will be required to write the **specific aims for a grant application**. A brief paragraph for introduction should be provided together with significance, followed by the hypothesis and the specific aims (all in one page, single space). The topic should be on one of the topics presented in the course. This cannot be on a topic previously used by the student for any other course requirements, fellowship applications, or qualifying exams. It also cannot be on a project already proposed by the student's laboratory (i.e. from the mentor's grant).

### **Homework**

After each paper presentation the students are supposed to write a homework consisting in 3 short paragraphs (3-4 sentences each) answering the following questions.

- 1) What was the main take-home message of the paper?
- 2) What part was found the least convincing or the most confusing versus which was the strongest part?
- 3) What are the next questions to be addressed?

The homework should be sent by email to Dr. Avram, Dr Jin and to the faculty responsible for the module, the morning before the next session.

### **Evaluation Policy (100 total points):**

Evaluations will be based on student presentations (20 points), participation in the discussion (20 points), weekly written homework (30 points) and grant application (30 points). There are no exams.

Class will be Wednesday and Friday from 9:00am-10:30 (with the exception of last session,

1. Monday August 21st Basic Concepts – Immune populations at mucosa- Instructor: Dr. Dorina Avram
2. Wednesday August 23th Paper presentation: Instructor: Dr. Dorina Avram
3. Friday August 25<sup>th</sup> - Innate lymphoid cells – Instructor: Dr. Liang Zhou

4. Wednesday August 30th Paper presentation: Instructor: Dr. Liang Zhou
5. Friday Sept 1<sup>st</sup>- Microbiota – Instructor: Dr. Gary Wang
6. Wednesday Sept 6<sup>th</sup> Paper presentation: Instructor: Dr. Gary Wang
7. Friday Sept 8<sup>th</sup> - Immune homeostasis in the gut and its alterations in IBD- Instructor: Dr. Sarah Glover
8. Wednesday Sept 13<sup>th</sup> Paper presentation - Instructor: Dr. Sarah Glover
9. Friday Sept 15<sup>th</sup> Immune homeostasis in the lung and its alterations in infections – Instructor: Dr. Lei Jin
10. Wednesday Sept 20<sup>th</sup> - Paper presentation- Instructor: Dr. Lei Jin
11. Friday Sept 22<sup>nd</sup> – student presentations of specific Aims - Dorina Avram and Lei Jin and All instructors