Recommended Curriculum

In addition to the BSGP core curriculum, 10 Immunology credit hours (1 to 3) and a seminar presentation (4) are required to receive an Immunology transcript designation.

1- Students must complete the following course:

**CBG 7010/MICR BIO 7010 Molecular and Cellular Immunology (3 credits/SPRING).** (Instructors: William Perry Lafuse and Abhay R. Satoskar). Cellular and molecular mechanisms of immune response, cell recognition and communication, molecular biology of cell recognition structures, cytokines, and effector mechanisms.

2- Students must complete one elective course from the following list:

**CBG 8845 The History of Immunology (3 credits/every other AU).** (Instructor: Dr. Jianhua Yu AU 2017/2019/2021) Understand immunology and pertinent research, students must understand its history so to appreciate where the field of immunology started, the progress and discoveries made. MVIMG 7010 is recommended but not required.

**CBG 8010 Selected Topics in Advanced Immunology (3 credits/every other AU).** (Instructor: Dr. Anjali Mishra AU 2018/2020/2022) Students will gain significant insight into immunological concepts of infectious diseases, transplant, cancer, mucosal immunity, allergy and autoimmunity. Two or three topics discussed in depth, topics alternate yearly. Prereq: 7010.

**PATHOL 7847 Cellular Mechanisms and Pathogenesis of Inflammation (2 credits/SPR).**

Inflammatory processes in the human host due to interaction with viruses, bacteria, parasites, foreign antigens, or physical trauma and new immunological therapeutic strategies being developed. Prereq: MVIMG 701 or Microbiol 701, or permission of instructor.

3- Students must complete a total of 4 credit hours, or 5 credit hours if MVIMG7847 was selected in (2), of Immunology Seminars and Journal Clubs including at least one Immunology seminar and one immunology journal club. chooses are:

Seminars

**BSGP 7950 Host-Pathogen Interactions: Research Seminar.** (Instructor: Dr. Jordi Torelles AU/Spr)

Faculty, students and outside speakers will give research presentations on microbial-host
interactions.

**PATHOL 8850 Seminars in Pathology. (1 credit)**

**MVIMG 7931 Research in Molecular Virology, Immunology and Medical Genetics (1 credit).**
(Instructors: Dr. Anne Strohecker and Dr. Thomas Ludwig) Student Seminar in Molecular Virology, Immunology and Medical Genetics. Student and post-doctoral presentations of research.

**Journal Clubs**

**BSGP 7890 Immunological Research of Pediatric Diseases (1 credit/Spring).** Instructor DR. Mark Peeples. Trainees will prepare and give presentations on current research on immunological mechanisms of pediatric diseases. Prereq: Enrollment in IBGP, and permission of instructor. Repeatable to a maximum of 2 cr hrs.

**BSGP 7900 Cancer Immunology: Critical Journal Readings (1 credit/AU).** (Instructor: Dr. Xue-Feng Bai). Faculty, students and postdoctoral fellows will give critical interpretations of research and journal readings on cancer immunology.

**INTMED 8891.01 Seminar Allergy/Immunology (1 credit).** Discussion of pertinent literature and research projects in various subspecialty areas with emphasis on basic science concepts. Au Sem. Repeatable.

4-Students must present the findings of their original research during their last year in one of the following courses designed for student presentations (registration is not required):

**BSGP 7950 Host-Pathogen Interactions: Research Seminar.** (Instructor: Dr. Jordi Torelles AU/Spr)
Faculty, students and outside speakers will give research presentations on microbial-host interactions.

**BSGP 7972 Senior Seminar: Research Seminar Presentation.** (Instructors: Dr. Maegen Ackermann AU/Spr and Dr. Frederica Accornero SUM). Faculty, students and postdoctoral fellows will give research presentations on cancer immunology.