

Title of Clerkship:	Pathogenesis of Immunological Diseases
Elective Type:	Fourth Year Elective
Department:	Medical Microbiology and Immunology
Clerkship Site:	The University of Toledo Medical Center
Course Number:	BSCI 781
Blocks available:	Any time except August through November
Number of students per block:	One to three
Faculty:	Akira Takashima, Kevin Pan, Mark Wooten, Randall Worth
Elective Description/ Requirements:	Students will participate in a combination of laboratory research, literature studies, and small group meetings, which are all to be focused on immunological disease(s) of their own interests. Students will be expected to acquire fundamental skills required for generating testable hypotheses, carrying out bench research, and analyzing the data.
Length of Clerkship:	4 weeks
Links to EPOs	Educational Course Objectives:
	At the end of this rotation the student will be able to:
K1	Describe basic science of normal structure and function of the body and organ systems
K2	Apply basic science knowledge to mechanisms that are important in maintaining the body's homeostasis
K3	Explain basic science of various causes of diseases and disorders
K4	Apply basic science knowledge to altered structure and function of the body and major organ systems
K5	Apply basic science knowledge to clinical, laboratory and pathologic manifestations of common diseases
K6	Describe pharmacologic basis for therapeutics
K7	Apply basic science knowledge to clinical problems
K8	Develop a research hypothesis and study design; analyze data, including statistical methods
S1	Effectively communicate, both orally and in writing, the results of the study
S7	Interpret results of commonly used basic science diagnostic procedures
S11	Perform a literature search on the topic of interest
P1, P3	Demonstrate honesty, integrity, and professionalism in the performance, interpretation, and presentation of research
P4	Meet standards for professionalism in dress and grooming, and in personal interactions with research colleagues, faculty and staff
Professionalism:	UTCOM students will meet or exceed the institutional standards for professionalism as stated in the current Educational Program Objectives and the current Educational Course Objectives for the Sponsoring Department.
Instructional Methods:	Independent study Literature study Problem solving exercises Lectures/PowerPoint presentations
Evaluation methods employed:	Students must submit an abstract, a manuscript, or a 3-5 page narrative summary of their work
Prerequisites:	Successful completion of Year 1 and 2
Clerkship Director:	Akira Takashima, M.D., Ph.D.
Clerkship Coordinator:	Traci McDaniel
Phone Number:	419-383-5423
Email:	Traci.mcdaniel@utoledo.edu
Special Requirements:	Each student must work with one or more research mentors to develop a brief description of the proposed project and activities during the clerkship. The elective description using this standard format must receive initial approval by the department chair. Final approval must be given by the Associate Dean for Clinical Undergraduate Medical Education, Professionalism, and Diversity.
AAMC Hot Topics Addressed in this Elective Clerkship: <i>(please make selection from attached Hot Topic list)</i>	Evidence Based Medicine (11) Collection and analysis of data (35) Research methods (36)