



BIO 250: Introduction to Immunology

This course describes the molecular and cellular interactions involved in immune responses. Topics include: development of the immune system, innate immunity, immunoglobulin structure and genetics, antigen-antibody reactions, the major histocompatibility complex and antigen presentation, T cell receptors (genetics, structure, selection), T cell activation and effector functions, immune responses to infections, organisms and tumors, autoimmune diseases, allergies, immune deficiencies and AIDS, activation and regulation of the immune response. Antibody structure and function; applications of monoclonal antibodies in biotechnology and medicine; tolerance. Laboratory involves antibody purification, immunoprecipitation assays, immunoblotting, and ELISAs. Prerequisite: BIO 239 with a grade of C+ or better. Three lecture hours and three laboratory hours per week.

Credits: 4

Program: Biology