

# ONCOLOGY

## Elective Opportunities

### Fundamentals of Cancer Immunology (Winter Term, Even years, 1.5 hour/week)

This new in-person, graduate-level course will provide an in-depth understanding of the immune system's role in cancer development, progression, and treatment. It will be held every other year in the winter. Students will explore foundational immunology and cutting-edge immunotherapeutic approaches, with a focus on fundamental mechanisms, translational relevance, and clinical application. Case studies and landmark research papers will be used to highlight current challenges and opportunities in the field. The course will be designed for graduate students and postdoctoral fellows. Others may enroll with permission. Students will be expected to take part in class discussion and complete short assignments related to the topics presented.

### Cancer Screening and Prevention (Fall Term, Odd years, 1.5 hour/week)

This new course will review the history of successful and failed trials in early cancer detection and prevention. It will focus on the epidemiologic evidence and political and public health ramifications of cancer screening. The course will trace the history of cancer prevention trials including using dietary supplementation. Caveats in the design of clinical trials aimed at early cancer detection, such as for breast and prostate cancer, will be discussed. The interaction between scientific and public perception of these exchanges will be examined. Methodology of study design, biases and interpretation will be addressed. The course will be open to graduate and post-doctoral fellows across Johns Hopkins University. Undergraduate students may be able to attend with permission.

### Introduction to Cancer Research

Research experiences are offered on a space-available basis to U.S. and international medical students who meet the appropriate qualifications and submit their application materials to the Registrar's Office. Please note that positions are based on limited availability and are not guaranteed. Interested and qualified students are encouraged to collaborate with staff members on clinical and laboratory research projects. The program also includes research seminars and related teaching sessions. Staff members will conduct interviews with students to develop a mutually agreed-upon plan of study and research. Visiting students are advised not to contact the department directly, as the application process must be coordinated through the Registrar's Office. The program is offered throughout the year, with a minimum duration of four weeks for Johns Hopkins students and nine weeks for visiting students.

### Clinical Clerkship in Bone Marrow Transplantation

The principles and practices of bone marrow transplantation (BMT) will be stressed. Students will work in the inpatient BMT Unit of the Oncology Center and participate in the daily activities of the service including rounds, lectures, seminars, and informal discussions. Under supervision, the student will follow the clinical course of selected inpatients including follow-up marrow graft recipients in the BMT Outpatient Clinic. The student will have the opportunity to become acquainted with the allied disciplines and procedures that relate to clinical BMT, including histocompatibility testing, marrow collection ("harvesting"), and ex vivo marrow processing. A syllabus of pertinent literature will be provided.

The student will also be encouraged to conduct and present a BMT-related research/literature review project. Availability/Duration: All year; ½ quarter; visiting medical students must follow JHUSOM quarter dates Prerequisite(s): Core Clerkship in Medicine or Pediatrics

### Advanced Clinical Clerkship in Oncology

This elective will acquaint students with the principles and practice of oncology. Each student will serve as an advanced clinical clerk on one of three inpatient units. The student is expected to attend the weekly outpatient clinics, daily rounds with the attending physician as well as two weekly conferences: Oncology Grand Rounds and the Translational Research Conference. Other disease-oriented conferences should be attended as appropriate. Appropriate readings are recommended. Availability/Duration: All year; ½ quarter; visiting medical students must follow JHUSOM quarter dates Prerequisite(s): Core Clerkship in Medicine

### Advanced Clerkship in Pediatric Oncology

Students will have the opportunity to help care for children with cancer on the inpatient Pediatric General Oncology Service. The patient population includes children with newly diagnosed cancers and those requiring admission related to complications of treatment. Students will be assigned patients to primarily follow along with resident supervision and will become integral members of the inpatient medical team. Additionally, each student will have an outpatient oncology clinic once per week. Core lectures occur at least twice a week. Students also attend weekly conferences, including fellows' educational sessions and tumor boards. Availability/Duration: All year; 4 weeks; visiting medical students must follow JHUSOM quarter dates Prerequisite(s): Core Clerkship in Pediatrics and Internal Medicine.

### Advanced Clerkship in Pediatric Bone Marrow Transplant and Cellular Therapy

Students will have the opportunity to help care for children with malignant and non-malignant conditions who are undergoing workup before a bone marrow transplant, are admitted for a bone marrow transplant, and are admitted for complications following a bone marrow transplant. Additionally, they will also care for patients receiving cellular therapy, such as chimeric antigen receptor T cell therapy (CAR-T). Students will be assigned patients to primarily follow along with fellow supervision and will become integral members of the inpatient medical team. Additionally, each student will have an outpatient BMT clinic once per week. Core lectures occur at least twice a week. Students also attend weekly conferences including fellows' educational sessions and tumor boards. Availability/Duration: All year; 4 weeks; visiting medical students must follow JHUSOM quarter dates Prerequisite(s): Core Clerkship in Pediatrics and Internal Medicine.

### Advanced Laboratory Research

Advanced research under the supervision of an Oncology faculty member. Research fellowships in basic and translational laboratory research on clinically relevant questions are available to students preparing themselves for careers in teaching and research. Availability/Duration: All four quarters; 1 year. Positions are based on limited availability and are not guaranteed. Prerequisite(s): Completion of years one and two

### Clinical Clerkship in Medical Oncology at Johns Hopkins Bayview Medical Center

This clinical experience in medical oncology exposes trainees to the multi-disciplinary practice of medical oncology. A special feature of the clerkship is the weekly Thoracic Multidisciplinary Clinic with medical, radiation, and surgical oncologists. Availability/Duration: All year; 2-4

weeks; visiting medical students must follow JHUSOM quarter dates.

Prerequisite(s): There are no absolute prerequisites, but completion of a Core Clerkship in Medicine will help the student fully participate in the elective.