

# ONCOLOGY

## Elective Opportunities

### Seminar Course: Biology of Cancer

This is an advanced graduate seminar course that is held biannually (rotates with New Approaches to Cancer Prevention and Therapy) in the Spring Semester. Selected timely topics are considered in some detail. Emphasis is placed on the fundamental processes underlying oncogenesis, and factors affecting the progression of various neoplastic diseases. A basic foundation will be developed that will permit the student to approach various aspects of oncology including epidemiology, carcinogenesis, environmental issues, biologic behavior of the neoplastic cell, and the rationale for the use of various treatment modalities with understanding.

### Seminar Course: New Approaches to Cancer Prevention and Therapy

This is an advanced graduate seminar course that is held biannually (rotates with Biology of Cancer) in the Spring Semester. Selective timely topics being developed for the management of neoplastic diseases.

Emphasis placed on illuminating chemical and biologic basis of therapeutic and translational impact on clinical practice.

### Translational Research Conference

This one-hour weekly conference series highlights the most current and promising advances in translational research and provides an opportunity for participants to understand and appreciate how basic science and clinical research can be successfully integrated for translation into clinical treatments.

### Fundamentals of Cancer: Cause to Cure

This is a basic graduate level lecture course that is held in the late summer/fall of each year. The overall goal of this course is to provide clinically-oriented students (primarily residents and fellows) and laboratory-oriented students (primarily graduate students and postdoctoral fellows) with a broad perspective on basic science as they impact important clinical issues, bridging the gap between the laboratory and the clinic. The course is designed to be highly translational, covering fundamental molecular biology of cancer, the processes and pathophysiology of transformation and metastasis, and how targeted screening strategies and therapies for treatment and prevention emerge from new scientific knowledge.

### Introduction to Cancer Research

Research experiences are offered on a space available basis to U.S. and international trained medical students who submit appropriate application materials to the Registrar's Office. Positions are based on limited availability and not guaranteed. Interested and properly qualified students are encouraged to collaborate in clinical and laboratory research projects with members of the staff. Students will participate in research seminars and related teaching sessions. Interviews will be arranged with staff members to develop a mutually agreed-upon plan of study and research. Visiting students should not contact the department directly as the application process must be coordinated through the Registrar's Office. Offered all year; minimum of four weeks (for Johns Hopkins students; nine weeks for visiting students.)

### Clinical Clerkship in Bone Marrow Transplantation

The principles and practice of bone marrow transplantation (BMT) will be stressed. Students will work on 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 weekly outpatient clinic, 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 Oncology and Bone Marrow Transplant Services. Patient population includes children with brain tumors, solid tumors, leukemia, lymphoma and bone marrow transplant recipients, as well as those requiring admission related to complications of treatment. Students will be assigned patients and become an integral member of the medical team and have outpatient once per week. Lectures focused on the inpatient service occur at least twice a week. Students also attend weekly conferences including fellows' educational session and tumor board. Availability/Duration: All year; 4 weeks; visiting medical students must follow JHUSOM quarter dates Prerequisite(s): Core Clerkship in Pediatrics

### 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, including inpatient consults and outpatient clinics in solid tumor and malignant hematology. 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.

## **Subinternship in Clinical Bone Marrow Transplantation**

This clinical elective will provide an in-depth experience in the management of patients undergoing allogeneic or autologous bone marrow transplantation (BMT) in the Johns Hopkins Oncology Center SKCCC. The student subintern will work with the BMT team, which consists of an attending physician, a clinical oncology fellow, a medical resident, and a physician assistant, plus staff members in nursing, nutrition, pharmacy, and social work. The subintern will assume responsibilities for the direct care of selected BMT inpatients, under the guidance of the attending physician and clinical fellow, and will assume night call every fourth night. The subintern is expected to participate in daily work rounds, didactic BMT lectures given by the inpatient attending physician, informal discussions about allied topics and current research activities, graft-versus-host disease walk rounds, and Oncology Center departmental seminars. The student will receive a syllabus of pertinent literature on both the clinical aspects and basic immunobiology of bone marrow transplantation. During this elective, the subintern will also 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 (e.g. lymphocyte depletion, chemotherapeutic treatment, cryopreservation). As part of this subinternship, the student will also be introduced to the basic and clinical research activities of the BMT program. Availability/Duration: Any ½ quarter, including summers; visiting medical students must follow JHUSOM quarter dates. Prerequisite(s): Senior students only. Completion of Core Clerkship(s) in Medicine and/or Pediatrics is essential.