

Combined Medical Oncology/Ph.D. Program University of Louisville

Rationale: The genetic alterations and signaling pathways that cancer cells depend on for survival and growth are now better defined. This new knowledge has provided great opportunities for the clinical development of novel anti-neoplastic strategies that rely on targeted therapies and diagnostics. Unfortunately, a bottleneck exists in the translation of basic discoveries into clinical practice which is largely due to a relative paucity of physician-scientists who are trained to both conduct hypothesis-driven research and practice medical oncology. In recognition of this deficit as well as the increasing complexity of cancer medicine, particularly with respect to the interface between laboratory discovery and clinical care, a combined Medical Oncology/Ph.D. Program is available via a partnership between the Brown Cancer Center and the Department of Pharmacology and Toxicology.

Objective: To train internal medicine sub-specialists to both practice medical oncology and conduct hypothesis-driven research with an emphasis on pharmacology and toxicology.

Approach: Individuals who have completed medical school, the U.S. Medical Licensing Exams I-III, and an Internal Medicine Residency Program will pursue both clinical training in the Medical Oncology Fellowship Program and research training in the Pharmacology/Toxicology Graduate Program.

Year 1: Inpatient Oncology Training
 Outpatient Oncology Training (minimum ½ day per week)
 Attendance at the Hematology/Oncology Journal Club,
 Translational Research Series, Core Curriculum, Tumor Board and
 Multi-Modality Seminars
 Research rotations through Pharmacology/Toxicology laboratories

Years 2-4: Required Coursework:

 Research Methods in Pharmacology and Toxicology
 Scientific Writing
 Cancer Biology
 Attend Department and Brown Cancer Center Seminars
 One Graduate School Elective
 Preparation (NIH grant format) and defense of dissertation proposal
 Dissertation research
 Completion of qualifying exams I.D and 2
 Presentation and defense of research dissertation
 Outpatient Oncology Training (maximum ½ day per week)

Year 5: Hematology Inpatient and Outpatient Training: 6 Months
(*optional*)