

**Title of Program:** Sociodemographic, Environmental, and Clinical Characteristics of Cancer Patients in North Carolina

**Dept/Center/Lab:** LCI Translational Research

**Principal Mentor:** Marc Kowalkowski, PhD  
Research Scientist, LCI Translational Research  
Levine Cancer Institute  
Carolinas HealthCare System

**Other Faculty:** Carol Farhangfar, PhD, MBA  
Assistant Vice President  
CHS Tissue Procurement & LCI Translational  
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**Summary Description:**

We have several projects using translational epidemiology and outcomes research to delve deeply into the challenges our cancer patients face and the care they receive to identify new approaches to improve the care of cancer patients. Using large data sets, experts in the care setting (oncologists, physicians, surgeons, and other providers), epidemiologic, statistical, and outcomes research tools, we analyze the data under and IRB approved protocol to perform hypothesis-driven patient-centered outcomes research. Levine Cancer Institute is a relatively new cancer institute in North Carolina and we will utilize North Carolina Registry and CHS data to learn more about the needs of cancer patients in our regions. Using geocoding, we will map spatial distribution of cancer cases and compare to LCI patient population. We will look at clusters and demographics to determine the needs of the patients, identify areas of late diagnoses, and assess any unique clusters identified to determine the potential cause. Using large data sets and analytic tools, we will identify gaps and propose solutions to test in prospective studies.

**Expectations and Role of Student**

The successful student will be very comfortable with detail-oriented work and excited about the use of data to improve patient care. The scholar will help obtain and review data from the medical records to ensure the data set is accurate. They will also be exposed to analytical tools, big data and outcomes research approaches to answer important clinical questions. Students will participate in weekly meetings and participate in original research work, which may leading to abstracts, and new grant applications.