

Programs at JCCC

UCLA's Jonsson Comprehensive Cancer Center operates 13 program areas that promote basic, clinical/translational and cancer prevention and control research. The program areas are organized to foster interdisciplinary research across academic units.

The five basic research programs bring together colleagues with similar research interests to allow for the exchange of information and ideas, foster scientific interactions and facilitate translation of laboratory studies into practical advances in cancer prevention, diagnosis and treatment. Most importantly, the basic research programs promote scientific efforts to better understand the basic cellular functions that are altered in cancer cells.

The five clinical/translational programs are aligned by strengths in different disease areas. This organizational structure allows for enhanced interdisciplinary approaches to malignancies being evaluated and studied at the cancer center.

The three cancer prevention and control research programs encompass a broad spectrum of research projects that range from primary prevention to screening and early detection, to continuing care and rehabilitation. Researchers are drawn from faculty in the schools of medicine, public health and nursing, as well as the College of Letters & Sciences.

Basic Research Programs



Signal Transduction

Director: Fuyuhiko Tamanoi, Ph.D.

Human tumor formation involves multiple genetic alterations, and it is likely that multiple signaling pathways are affected in cancer cells. The Signal Transduction

Program Area seeks to identify novel genes involved in cell signaling pathways to increase understanding of signal transduction events in the development of cancer. It also seeks to develop new methods to detect changes in signaling events and, lastly, to develop inhibitors of signal transduction that could lead to novel anti-cancer therapies.



Cancer Cell Biology

Director: Leonard Rome, Ph.D.

Associate Director: Geraldine Weinmaster, Ph.D.

The Cancer Cell Biology Program Area seeks to clarify the basic mechanisms which underlie fundamental biological processes in normal, as well as abnormal, cells. It also hopes to highlight and characterize alterations in cancer cells versus their normal counterparts, where feasible, and promote more effective

research and educational interactions among researchers, and among basic and clinical scientists at UCLA and its affiliated teaching hospitals



Tumor Immunology

Director: Dr. Jonathan Braun

Associate Director: Anna Wu, Ph.D.

The scientific focus of the Tumor Immunology Program Area is investigation of the immune system—its basic biology, its role as a tissue target of neoplasia and its impact on the host response to malignancy. The program fosters research in these areas by promoting the exchange of information and ideas among investigators at UCLA and other institutions and coordinating the immunology curriculum and related research training efforts of its members.



Cancer Virology

Director: Ren Sun, Ph.D.

About 15% of cancers are associated with viral infection. Cancer Virology Program Area researchers encompass various aspects of virology, including molecular biology, immunology and pathogenesis. The program focuses on tumorigenesis associated with viral infection and the development of virus-based vectors for gene therapy. It also emphasizes the molecular aspects of the interactions of cancer-causing viruses with the host. A major focal point is AIDS-associated malignancies, which often have a viral origin.



Gene Regulation

Director: Michael Carey, Ph.D.

Associate Director: Stephen Smale, Ph.D.

Mis-regulated gene expression plays a causal or contributing role in all cancer. The Gene Regulation Program Area's goal is to understand fundamental aspects of gene expression and apply that knowledge to diverse forms of cancer. In addition to investigating diverse aspects of basic and regulated transcription, the program area provides the expertise and resources needed by other program areas to understand cancer at its most fundamental level.

Clinical/Translational Research Programs



Women's Cancers

Director: Dr. Mark Pegram

Associate Directors: Dr. Beth Karlan and Dr. Mai Brooks

The Women's Cancers Program Area addresses research, clinical and educational

activities for malignancies in women. The objectives are to foster interactive and collaborative activities between and among members; develop multidisciplinary research programs among cancer center members working in the area of breast and women's reproductive cancers to bring about a more comprehensive and effective approach to clinical cancer research; and to focus upon areas of translational research.



Genitourinary Oncology

Director: Dr. Charles Sawyers

Associate Director: Dr. Robert Reiter

The Genitourinary Oncology Program Area seeks to develop a comprehensive research program to investigate the molecular and immunologic mechanisms responsible for genitourinary (primarily prostate and kidney) cancers, and rapidly translate these findings into therapeutic trials. It also seeks to coordinate all clinical activities to deliver optimum care to patients with localized and metastatic tumors. It also hopes to facilitate the study of new and emerging treatment strategies, especially those translated from basic science research.



Hematopoietic Malignancies

Director: Kenneth Dorshkind, Ph.D.

Associate Director: Dr. Ronald Paquette

The overall goals of the Hematopoietic Malignancies Program Area are to coordinate basic research efforts at UCLA in the fields of hematopoiesis, leukemia, lymphoma and multiple myeloma; to facilitate the translation of basic research insights into pre-clinical and clinical testing; and to provide clinical research support and core laboratory technology for the conduct of clinical trials in leukemia, lymphoma and multiple myeloma.



Cancer Translational Therapeutics

Director: Dr. James Economou

Associate Director: Dr. Carolyn Britten

The goals of the Cancer Translational Therapeutics Program Area are to integrate basic scientists, physician-scientists and clinicians with interests in cancers of the central nervous system, thoracic system, gastrointestinal tract, musculo-skeletal system, head and neck, melanoma and liver. This integration will promote the study of these cancers at the molecular, biochemical, genetic, cellular, tissue and organism levels, with opportunities for optimal integration of research between basic and clinical investigators.



Thoracic Oncology

Director: Dr. Steven Dubinett

The Thoracic Oncology Program Area is a multidisciplinary, translational research program addressing critical questions in a broad-based effort to understand the biology

of lung cancer and develop more effective methods for prevention, diagnosis, and treatment. The program seeks to define persons at risk and apply leading-edge technology to develop improved methods for accurate and early detection; discover new basic principles in lung cancer biology with the specific intent of translating these findings into new biological therapies; and emphasize career development and future discovery as a means to foster new approaches for assessing and treating lung cancer.

Cancer Prevention and Control Research Programs



Healthy and At-Risk Populations

Director: Roshan Bastani, Ph.D.

Associate Director: Gail Harrison, Ph.D.

The Healthy and At-Risk Populations Program Area focuses on research in primary prevention and screening and early detection among healthy populations and persons at increased risk for cancer. The program includes an emphasis on bringing cancer prevention and control to low-income, minority, and under-served populations. It also emphasizes translational research in cancer control, applying new findings in the basic biologic and behavioral sciences to intervention research with clinical and community populations.



Patients and Survivors

Director: Dr. Patricia Ganz

Associate Director: Dr. Lonnie Zeltzer

The Patients and Survivors Program Area has as its major goal the reduction in avoidable morbidity and mortality among patients with cancer, long-term survivors of cancer and family members and caregivers of patients with cancer. In targeting these populations for prevention and control research, program area members focus on behavioral intervention research, assessment of quality of life and other health care outcomes, nutritional intervention research and symptom control research.



Molecular Epidemiology

Director: Dr. Zuo-Feng Zhang

Associate Director: Curtis Eckhart, Ph.D.

The Molecular Epidemiology Program Area seeks to develop a multidisciplinary approach to understanding the interactions between environmental exposures and molecular genetic alterations that affect the risk and progression of cancer and apply this knowledge to improve cancer prevention and control. The program will emphasize the use of new approaches, including gene expression profiling and proteomics in concert with epidemiological and clinical studies.

★