

STATE OF HAWAII
UNIVERSITY OF HAWAII
UNIVERSITY OF HAWAII AT MANOA
OFFICE OF THE VICE CHANCELLOR FOR RESEARCH AND GRADUATE
EDUCATION
CANCER RESEARCH CENTER OF HAWAII
FUNCTIONAL STATEMENT

Office of the Director

The Director of the Cancer Research Center is responsible for the administrative and overall programmatic direction of the Center, the recruitment of faculty and staff, recommendations for staff appointments and promotion through the usual University procedures, space allocations, budgetary planning and control, program review and evaluation, inter-program interactions, and the development of the Cancer Research Center.

In addition to the administrative responsibilities listed above, the Director of the Cancer Research Center:

- Provides the day-to-day administrative direction for the Center.
- Gives leadership, direction and support to all components of the Center, including overall planning and evaluation functions, centralized services, faculty personnel reviews, and project reviews. Current research programs are Cancer Etiology, Natural Products, Clinical Sciences, and Social and Behavioral Sciences. In addition, the Center also operates a Clinical Trials Unit, a Tumor Registry, a Birth Defects Registry, a Cancer Information Service, and an Outpatient Clinic.
- Cooperates closely with cancer-related education programs of the School of Medicine, including the Office of Public Health Studies, College of Natural Sciences, and other relevant schools and research institutes of the University of Hawaii.
- Encourages faculty to participate in UH School of Medicine teaching programs, including the Office of Public Health Studies, and other graduate school teaching programs as appropriate.
- Assists the respective heads of the Cancer Research Center programs in developing coordinated research and education programs and encourages interdisciplinary approaches to research problems involving more than one program including the recruitment of the appropriate faculty and staff of these programs.
- Cooperates closely with on-going research programs in the community to promote, develop and expand new cancer research activities among individual investigators in the community.
- Encourages scientists with research interests similar or complementary to those of the Center scientists to become formally associated with the Cancer Research Center.
- Develops interdisciplinary programs that take advantage of the Center's special strengths and unique capabilities.
- Provides support for the development of new approaches for the study of cancer prior to requests for funding from extramural agencies.
- Provides a forum for interchange of new ideas and new technology.

- Develops and maintains cooperative and collaborative relationships with all relevant departments and programs of the University, the Research Corporation of the University of Hawai'i (RCUH), and all relevant medical and lay associations and societies in the community.
- Maintains effective relations with the National Cancer Institute (NCI), other appropriate federal funding organizations, the American Cancer Society, and other state and private funding organizations including the pharmaceutical industry.
- Maintains effective relations with federal and state legislature and legislative staff.
- Develops and maintains appropriate relationships with other cancer centers in the nation as well as with international programs in cancer.
- Seeks opportunities that can provide Center-wide support for all program faculty and staff.
- Coordinates methods to enhance public awareness of programmatic activities at the Cancer Research Center.
- Coordinates charitable contributions development in collaboration with the UH Foundation.
- Coordinates volunteers for Center activities, including the Friends of Cancer Research in Hawai'i.
- Coordinates development of Center-wide promotional, business and scientific brochures and reports.

ADMINISTRATIVE SUPPORT SERVICES

Administration

The major functions of the administration are:

- Develop and control the budget.
- Assist with the Center's planning process.
- Assist with promoting internal communications.
- Procure goods and services.
- Maintain and monitor all grant and contract accounts for principal investigators.
- Provide fiscal and personnel support services for grant administration.
- Issue invoices and monitor income for revolving accounts.
- Coordinate with the RCUH on all accounts for grants and contracts that are service-ordered to the RCUH.
- Coordinate with the University of Hawai'i Foundation.
- Implement personnel policies for University and RCUH employees.

- Prepare and maintain personnel documents and records.
- Enforce E.E.O. regulations.

Public Information

The major functions of public information are:

- Manage liaison with community health professions and the public in general.
- Identify public information needs; distribute press releases, informational brochures, media kits.
- Coordinate public education and awareness activities with CRCH programs.

Facilities Maintenance

The major functions of facilities maintenance are:

- Plan, coordinate, and provide maintenance support and services for the following:
 1. Building and grounds.
 2. Equipment.
 3. Laboratories, offices and other rooms.
 4. Utilities (A/C, telephone, electricity).
 5. Furnishings and furniture.
- Provide custodial support services.
- Provide storage area for supplies, equipment and property.
- Provide and maintain centralized resources such as the hot room, cold room, and freezer storage areas.
- Plan, coordinate and monitor capital improvement projects.
- Coordinate maintenance requirements with UH central offices.

Information Technology Support

The major functions of information technology support are:

- Coordinate, manage, and operate Center-wide shared computer resources.
- Develop, maintain, and/or support software tools for data storage, retrieval and analysis.
- Maintain Center-wide data resources.
- Assess evolving computer needs of the Center; propose and implement solutions to these needs.
- Coordinate and provide computer programming support to all units of the Cancer Research Center.
- Advise and provide support and services for Center automation, telecommunications, and visual information (graphics).
- Provide formal training to new and existing employees.

Research Conferences and Seminars

The major functions of research conferences and seminars are:

- Sponsor and initiate extramural conferences and intramural research seminars to communicate findings, enhance interaction and provoke new ideas within the local community of scientists and also with the national and international community who share the Center's research goals.
- Coordinate Center-sponsored national and international research conferences and other business meetings held with community organizations.
- Sponsor and initiate seminars and conferences for continuing medical education for the medical community at large.

SHARED (CORE) RESOURCES

Analytical Laboratory

The major functions of the Analytical Laboratory are:

- Analyze molecules of interest from human tissues and body fluids in support of clinical, epidemiologic and basic science studies relating to the prevention of cancer in human populations.
- Update assays continuously to provide state-of-the-art techniques.
- Facilitate collaborative interdisciplinary research among Center investigators.
- Conduct independent research in aspects of cancer prevention.

Biostatistics Resource

The major functions of the Biostatistics Resource are:

- Provide assistance in statistical aspects of study design and data analysis to all units of the Cancer Research Center.
- Coordinate activities relating to the population database and computerized record linkage.
- Keep abreast of relevant developments in the field of computer science and biostatistics.
- Perform research in relevant biostatistical methods.
- Participate in UH School of Medicine teaching programs, including the Office of Public Health Studies, as appropriate.

Genomics Resource

The major functions of the Genomics Resource are:

- Provide support to Center investigators in the area of molecular genetics.
- Develop and refine assays such as PCR/RFLP polymorphism detection assays, gene expression assays, and DNA extraction and genotyping assays.

- Develop protocols to facilitate the collection and long-term storage of biospecimens for genetic studies in epidemiologic research.

Flow Cytometry Resource

The functions of the Flow Cytometry Resource are:

- Provide access to flow cytometer instrument to Center investigators.
- Provide training and instruction in use of the flow cytometer.
- Assist in the establishment of new assay methods for flow cytometer.

Laboratory Support Resource

The functions of the Lab Support Resource are:

- Collect and dispose of biological and chemical hazardous waste.
- Wash and sterilize glassware.
- Prepare sterile cell culture medium and sterile buffers.
- Produce and distribute liquid nitrogen for cryogenic purposes.

Laboratory Instrumentation

The functions of the Laboratory Instrumentation Resource are:

- Repair and maintain all Laboratory equipment in the Center.
- Provide tools and skills for construction of small scientific instrumentation and other laboratory requirements.
- Maintain and operate the Center's emergency generator and oversee 24-hour remote monitoring of all mechanical and liquid nitrogen freezers and cold room.

Nutrition Resource

The major functions of the Nutrition Resource are:

- Provide dietary assessment information that will support diet related cancer research studies.
- Provide investigator access to the comprehensive food composition data base.
- Assist in the development of dietary questionnaires used to estimate dietary intakes of study participants and test various hypotheses in cohort, case-control and intervention studies.
- Update the food composition data base by adding new dietary components, developing recipes of reported mixed dishes, and reviewing 24-hour recalls, food records and diet histories of various studies for accuracy.
- Provide support in gathering dietary data.
- Participate in UH School of Medicine teaching programs, including the Office of Public Health Studies, as appropriate.

Library and Learning Resources

- Plan, coordinate and maintain Center-wide library and learning services.

RESEARCH PROGRAMS

Cancer Etiology

The Cancer Etiology Program encompasses both basic laboratory and epidemiologic research. Researchers in this program seek to identify factors, both exogenous and endogenous, which increase or decrease the risk of cancer, and to elucidate the molecular mechanisms that underlie the carcinogenic process.

The major functions of the Etiology Program are:

- Develop and implement well-defined laboratory research projects studying the mechanisms of cancer development at the molecular, cellular and whole animal level.
- Develop laboratory tests which will provide biological/pharmacological explanations for ethnic associated cancer incidence and outcome differences detected through epidemiology research.
- Develop laboratory tests which can be adapted for use in risk assessment, early diagnosis, prognosis, treatment selection and monitoring of certain cancers.
- Coordinate laboratory research programs existing throughout the state, particularly in the areas of environmental carcinogenesis, cancer biology, cancer immunology, and experimental pharmacology and therapeutics.
- Identify etiologic factors in human cancer, through both descriptive and analytic epidemiologic studies.
- Emphasize the unique characteristics of the population of Hawaii, particularly its multi-ethnic composition, as the primary focus for these studies.
- Emphasize unique culturally sensitive methods as a primary focus for these studies.
- Provide assistance in the area of research design to other programs of the Cancer Research Center.
- Collaborate with other programs of the Cancer Research Center, and with agencies outside the Center, in both research and service activities.
- Participate in the UH School of Medicine teaching programs, including the Office of Public Health Studies, and other relevant teaching programs as appropriate.
- Manage the Hawaii Health Registries (Hawaii Tumor Registry and Hawaii Birth Defects Registry) in cooperation with the State Department of Health and Hawaii Medical Association.
- Support training of future researchers in the fields of molecular carcinogenesis and cancer epidemiology.

Natural Products

The Natural Products Program is a multi-disciplinary research program in the area of drug discovery. The overall objective of the Natural Products Program is to foster

collaborative research leading to the discovery and development of new drugs for the treatment of cancer. The Program emphasizes the systematic evaluation of the unique biota of the Indo-Pacific region as a source of molecular diversity, and combines chemistry and biology components in a manner that bridges the gaps between traditional academic disciplines to enhance collaborative interactions. The Program is the locus for the Joanna Sullivan Distinguished Chair in Cancer Research, which was established in 2001.

The major functions of the Natural Products Program are:

- Discover and characterize new chemotherapeutic agents, emphasizing natural products;
- Investigate drug mechanisms at the biochemical, molecular and genetic levels;
- Develop innovative new molecular targets and assays for small molecules, taking advantage of recent advances in cancer biology;
- Discover innovative new techniques that might be used to design and synthesize drugs, including both chemical and biological production; and
- Translate the result of basic laboratory research into more effective cancer therapies.
- Participate in UH Medical and Graduate School Teaching Programs as appropriate.
- Support training of future researchers in the field of experimental pharmacology.
- Collaborate with other programs of the Cancer Research Center, and with agencies outside the Center, in both research and service activities.

Clinical Sciences

The overall goal of the Clinical Sciences Program is to conduct basic and applied research in the clinical and population sciences which reduces cancer incidence, morbidity, and mortality. The Program is the locus for the Maurice Sullivan Chair in Cancer Prevention and Control, which was established in 1997.

The major functions of the Clinical Sciences Program are:

- Improve cancer care through the application and evaluation of clinical research in Hawaii's unique multi-ethnic population.
- Operate a Clinical Trials Unit that coordinates and administers virtually all cancer clinical trials in the State of Hawaii.
- Develop treatment protocols in chemoprevention, chemotherapy, immunotherapy, radiation therapy and surgery designed to meet the needs of Hawaii's diverse population.
- Participate in the application of national treatment protocols through cooperative group memberships.
- Develop an outreach program for neighbor island physicians so as to give them access to state-of-the-art treatment including experimental drugs.
- Identify new methods to increase the adoption of established cancer prevention and control interventions in the following areas:

1. Risk factor removal and protectant addition as in smoking and diet modification.
 2. Early detection procedures such as mammography and Pap cervical smears.
 3. Access to and compliance with the state-of-the-art cancer treatments.
- Collaborate with other programs of the Cancer Research Center, and with agencies outside the Center, in both research and service activities.
 - Provide educational, administrative and scientific support for all studies introduced into the community through the Center.
 - Provide second opinion consultation outpatient and inpatient service to community services.
 - Develop outreach projects for high risk minority populations in order to provide them with the state-of-the-art cancer care and determine how to improve the outcome for these groups.
 - Participate in UH School of Medicine teaching programs, including the Office of Public Health Studies, as appropriate.
 - Provide continuing professional education to physicians, nurses, and allied health professionals.

Social and Behavioral Sciences

The Social and Behavioral Sciences Program was established in July of 2001 as a Developing Program. The Social and Behavioral Sciences Program focuses on applications of social science research methods, including theories of human behavior and rigorous measurement, to preventing cancers and detecting them at an early stage, when they are most treatable. The program emphasizes the community-based research that involves collaborative relationships with education, health care, public health, law enforcement, and social service agencies.

The major functions of the Social and Behavioral Sciences Program are:

- Conduct research on social-behavioral and environmental influences on cancer prevention and early detection behaviors.
- Identify new methods to increase the adoption of established cancer prevention and control interventions, such as risk factor removal and protectant addition as in smoking diet modification.
- Participate in UH School of Medicine teaching programs, including the Office of Public Health Studies, as appropriate.
- Support training of future researchers in the field of social and behavioral sciences.
- Collaborate with other programs of the Cancer Research Center, and with agencies outside the Center, in both research and service activities.

SERVICE UNITS

The Center operates the following service units: Cancer Information Service, Hawaii Tumor Registry, Hawaii Birth Defects Registry, Clinical Trials Unit, and an Outpatient Clinic. These service units are linked to particular Center programs but are integral to all Center activities.

Cancer Information Service

The major functions of the Cancer Information Service (CIS) of Hawaii are:

- Provide the latest and most accurate cancer information for patients and their families, the public, and health professionals.
- Assist people to become active participants in their own health care by providing the latest scientific information in understandable language. The CIS strives to reach as many people as possible by interacting with people one-on-one, developing partnerships with organizations, participating in health communications research and providing access to National Cancer Institute information over the Internet.
- Increase cancer awareness among underserved populations, with special emphasis given to breast and cervical cancer education, tobacco control, and clinical trials education.
- Provide capacity building assistance to partner organizations statewide in the areas of training; materials development; promotions; and new technology.
- Work with local print and electronic media to deliver cancer control messages and promotions to the public.
- Serve on local cancer control advisory groups, consortia, coalitions, and task forces.
- Provide National Cancer Institute materials, information and resources to partner organizations statewide.
- Support research studies that test strategies and technologies within the broad span of research fields - cancer control, behavioral research, social psychology, informatics, nursing and others - to determine how to communicate better about cancer.
- Work with research partners to recruit participants to studies; test telephone or Internet based protocols; and test strategies designed to meet the needs of underserved populations.

Hawaii Tumor Registry

The major functions of Hawaii Tumor Registry are:

- Provide local researchers, public health workers and health care providers with current data on cancer incidence and survival in Hawaii.
- Provide statewide data on cancer incidence and follow-up status to the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) Program.
- Serve as a surveillance system of changing trends in cancer incidence and survival in Hawaii.
- Serve as a resource for epidemiologic research on the etiology of cancer.
- Provide a mechanism for monitoring the effectiveness of public health programs to reduce the incidence of cancer, and of treatment programs to improve the long-term survival of cancer patients.

Hawaii Birth Defects Registry

The major functions of the Hawaii Birth Defects Registry are:

- Provide data and information on birth defects and other adverse reproduction outcomes for the State of Hawaii (demographic and diagnostic on affected babies and biological parents).
- Be a reliable, valid and timely information source for ascertaining the number of pregnancies resulting in adverse outcomes as well as the number of infants and children born with specific defects.
- Monitor birth defects and other adverse reproductive outcomes for trends and changes over time, including the identification of geographic and other clusters.
- Provide an information base for case-control studies and for developing public awareness education programs about birth defects and their causes.
- Act as a resource for the planning and development of appropriate services and preventive strategies.

Clinical Trials Unit

The major functions of the Clinical Trials Unit are:

- Provide Hawaii's health care providers and their patients a portfolio of National Cancer Institute and select pharmaceutical company sponsored clinical trials.
- Coordinate and administer cancer clinical trials.
- Develop an outreach program for neighbor-island physicians in order to give them access to state-of-the-art treatment including experimental drugs.

Outpatient Clinic

The major functions of the Outpatient Clinic are:

- Provide education, counseling and treatment followup for participants in Clinical Trials and population studies at the Center.
- Provide facilities for conducting interviews, performing procedures, and carrying out interventions related to specific research projects.