Dietary Fat and Breast Cancer Incidence in Women

Breast Cancer Survival Curves After Adjusting for Stage, Age and Socioeconomic Status

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At the Sandoz Cytokine Development Unit (CDU), we are exploring new paths of research and development and studying more options in disease treatment than were ever thought possible. Using the latest technology, the CDU is working to develop these treatments rapidly, with the same high-quality standards we have always upheld.

At the CDU, our commitment to research and development is unsurpassed. Sandoz created the CDU as an independent unit, fueled by the dedication of specialized personnel. These highly skilled individuals have been brought together for a common goal—to explore new paths of therapy.
Hawaii’s remarkable differences in ethnic-associated cancer incidence and mortality rates provide a unique “laboratory” for discovering etiological factors bearing on cancer prevention and management (Eur. J. Cancer, 27: 1701, 1991). These differences are specific for each type of cancer and offer distinctive opportunities for studies on the interaction of environment, diet, and other ethnically associated life-style factors. Also, differing mortality rates in relation to incidence provide leads relative to the role of these factors in cancer prognosis, knowledge that is relevant not only in Hawaii but also in populations around the world.

These topics represent some of the major foci of research at the Honolulu-based Cancer Research Center of Hawaii, a multidisciplinary, independent center of the University of Hawaii, featured on this issue’s cover.

It occupies a structure of 35,100 square feet and has a staff of 207, including 32 faculty members, 59 community-based clinicians, 87 support staff members, and 29 trainees. Research programs emphasize the fields of epidemiology, molecular oncology, and cancer prevention and control; studies in these areas are coordinated to provide mutual support in the search for clues to racial diversity.

The Center has attained international recognition for its work on dietary factors and nutritional status as elements in cancer risk and prevention. Specific emphasis is placed on investigation of the underlying cellular and molecular mechanisms that distinguish cancer cells from normal cells. Efforts are ongoing to assess the roles of tocopherols, retinoids, and carotenoids. This work is being expanded to include the evaluation of extracts of natural products from Hawaii’s unique tropical marine and terrestrial environments.

Scientists at the Center are seeking clinical interventions, with priority given to individuals diagnosed with the most common types of cancer, e.g., breast cancer (J. Natl. Cancer Inst., 73: 1259, 1984; Cancer Causes & Control, 3: 17, 1992). Caucasians and Hawaiians register the highest rates of breast cancer incidence, as a result of dietary fat intake (see chart, top left), but rates of survival after diagnosis are lowest among Filipinos and Hawaiian women (see chart, top right) (J. Chronic Dis., 40: 1099, 1987). Biological and behavioral rationales for this disparity are being examined.

Pictured are key staff members: from left to right, Program Director Laurence Kolonel, epidemiologist; Loic Le Marchand, epidemiologist; Jean Hankin, nutritionist; Center Director Brian Issell, oncologist; and Omer Kucuk, medical oncologist. The Center is in the background. We are indebted to Dr. Issell and to the staff for the photographs and the information.

John H. Weisburger