DECEMBER 12-16, 1997

DNA Methylation, Imprinting, and the Epigenetics of Cancer

Chairpersons: Peter A. Jones, Los Angeles, CA; Stephen B. Baylin, Baltimore, MD; Timothy H. Bestor, New York, NY
El Conquistador Resort and Country Club, Las Croabas, PR

JUNE 14-18, 1998

Proteases and Protease Inhibitors in Cancer

Co-Sponsored by the Danish Society for Pathology
Chairpersons: Keld Dano, Copenhagen, Denmark; Henri Rochefort, Montpellier, France; Lynn M. Matrisian, Nashville, TN; Nils Brunner, Copenhagen, Denmark
Nyborg Strand Conference Center, Nyborg, Denmark

JANUARY 9-13, 1998

Molecular Mechanisms of Apoptosis Regulation

Chairpersons: John C. Reed, La Jolla, CA; Vishva M. Dixit, Ann Arbor, MI
Renaissance Esmeralda Resort, Indian Wells (Palm Springs), CA

JANUARY 24-28, 1998

Angiogenesis and Cancer

Chairpersons: Judah Folkman, Boston, MA; Michael Klagsbrun, Boston, MA
Hyatt Orlando, Orlando, FL

JANUARY 24-28, 1998

Innovative Molecular Biology Approaches to the Prevention, Diagnosis, and Therapy of Cancer

Joint Meeting with the Japanese Cancer Association
Chairpersons: Edward Bresnich, Worcester, MA; Kaoru Abe, Tokyo, Japan
Maui Marriott Resort, Maui, HI

FEBRUARY 16-21, 1998

Viral Targets and Cellular Growth Control (tentative title)

Chairperson: Thea D. Tlsty, San Francisco, CA
(additional chairpersons to be announced)
Marriott’s Laguna Cliffs Resort, Dana Point, CA

MARCH 28-APRIL 1, 1998

Basic and Clinical Aspects of Prostate Cancer

Chairpersons: Frank J. Rauscher III, Philadelphia, PA
Morial Convention Center, New Orleans, LA

Abstract Deadline: October 28, 1997

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For regular updates to this list visit the AACR’s Website, http://www.aacr.org
The Cancer Diagnosis Program of the National Cancer Institute seeks an individual with expertise in oncology to head the Diagnostics Research Branch (DRB). The ultimate aim of the Program is to improve the detection and diagnosis of cancer, to increase dramatically our accuracy in predicting a patient's prognosis and response to therapy, and to improve our ability to select effective therapy for individual patients. The Chief of the DRB will direct and manage a dynamic extramural research program of international scope. The DRB will foster the development and clinical testing of powerful new diagnostic technologies that allow the translation of biological insights into clinically useful tools for characterizing tumors and determining outcome. In pursuing this goal, the DRB will interact closely with other NCI units that focus on related aspects of the diagnosis challenge. These include the Technology Development Branch, responsible for development of novel and high-throughput technologies and devices for characterizing tumors; the Resources Development Branch, responsible for development and maintenance of specimen resources crucial to rigorous diagnostics testing; staff from various programs involved in the development of state-of-the-art informatics systems, and statistical and mathematical techniques adequate for the analysis of massive datasets; the Diagnostic Imaging Program, responsible for improvements in the non-invasive imaging of tumor physiology and biochemistry; and the programs involved in the development of more precise outcomes assessment by the NCI-supported multicenter cooperative groups, cancer centers, and specialized research consortia. The incumbent will be expected to have expertise in design of clinical correlative studies and to coordinate with the Cancer Therapy Evaluation Program of the NCI and with regulatory agencies such as the FDA.

Salary - ranges from $75,935 - $98,714 per annum; physicians may be eligible for Physicians Comparability Allowance up to an additional $20,000 per year. Benefits - health and life insurance options, retirement, paid holidays, vacation & sick leave.

U.S. citizenship is required. Applicants must meet the basic experience and educational qualification requirements as stated in the announcement for either the Medical Officer, Health Science Administrator, Chemist, Biologist or Microbiologist series. In order to validate your qualifications, it is mandatory that you describe your proficiency in the following knowledge, skills and/or abilities (KSAs): 1) Ability to plan, develop and implement a comprehensive scientific program including the formulation of program objectives, goals and initiatives, 2) Ability to provide scientific leadership and to manage scientific programs and personnel, establishing program priorities and assessing program effectiveness, 3) Ability to communicate clearly both in writing and orally about scientific issues and to establish and maintain effective collaborative relationships with other scientists, 4) Knowledge of a broad range of research topics that can potentially be used in formulation of program goals in cancer diagnosis.

For additional information on qualification requirements, and application procedures please request the recruitment bulletin by calling 301-402-2789. To have it faxed to you, please call 1-800-728-JOBS, fax ID 1894.

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NATIONAL CANCER INSTITUTE
PERSONNEL MANAGEMENT BRANCH
6120 EXECUTIVE BOULEVARD, EXECUTIVE PLAZA SOUTH, ROOM 550
ROCKVILLE, MARYLAND 20852

A current curriculum vitae and bibliography must accompany all applications for this position.

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In 1984, Rashida A. Karmali (cover), then at the Memorial Sloan-Kettering Cancer Center, first reported a difference in the activities of n-3 and n-6 polyunsaturated fatty acids on the growth of a transplantable mammary tumor (J. Natl. Cancer Inst., 73: 147, 1984). Dr. Karmali demonstrated that instead of having tumor-promoting activity in experimental tumor models, n-3 fatty acids actually had protective effects. She proposed that both the marine and plant (α-linolenic) n-3 fatty acids could abrogate the tumor-promoting activity of n-6 polyunsaturated fatty acids by competitively inhibiting the metabolism of arachidonic acid.

Dr. Karmali received a B.Sc. in 1971 at Makerere University in Kampala (Uganda) and a M.Sc. in 1973 at Aberdeen University (Scotland). She earned a Ph.D. at the University of Newcastle Upon Tyne (England) on the role of prolactin in the immune system and on experimental tumors of lung and muscle in mice (Eur. J. Cancer, 13: 685, 1977). Subsequently, she moved to the Clinical Research Institute of Montreal (Canada), where her research interests turned to the mechanism of action of prostaglandins and related substances in different disease conditions. Dr. Karmali moved to East Carolina University and carried out a series of studies on the role of polyunsaturated fatty acids in cancer and in autoimmune diseases (Prog. Lipid Res., 20: 655, 1981). She continued to develop these studies when she joined Robert A. Good at the Memorial Sloan-Kettering Cancer Center in 1980, and later, in 1984, at Rutgers University. A major area of research evolved, namely, biochemical and pathophysiological actions of arachidonic acid products, specifically, prostanoids (PG), thromboxanes (TX), leukotrienes, and hydroxy fatty acids and hydroperoxy fatty acids [collectively referred to as eicosanoids (see cover illustration)], in a variety of paraneoplastic syndromes, including tumor initiation and promotion, cell proliferation, tissue invasiveness, metastatic spread, and subversion of immune surveillance. Dr. Karmali demonstrated that cyclooxygenase (cox) enzyme activity was significantly increased in cancerous tissues compared to their normal counterparts. Elevated levels of cox2 products PGE2 and TXB2 were associated with tumor growth and metastasis in breast cancer (Eur. J. Cancer Clin. Oncol., 19: 817, 1983; Br. J. Cancer, 48: 689, 1983). Dr. Karmali demonstrated that intervention with pharmacological agents that inhibit eicosanoid synthesis (non-steroidal anti-inflammatory agents) resulted in inhibition of tumorigenesis (Prostaglandins Leukot. Med., 20: 283, 1985). Similarly, n-3 fatty acids, and specifically eicosapentaenoic acid (EPA), a competitive inhibitor of arachidonic acid (at the level of lipoxygenase and cyclooxygenase enzymes), also inhibited tumor development, growth, and metastasis in some models (Prev. Med., 16: 493, 1987; J. Intern. Med., 2225 (Suppl. 1): 197, 1989; Br. J. Cancer, 61: 290, 1990; Nutrition, 12: S2-S4, 1996). In turn, EPA is converted to trienoic prostanoids and thromboxane, and to pentane leukotrienes, all having attenuated activity in comparison with corresponding arachidonic acid products. Both the n-6 and n-3 fatty acids are essential and as such must be provided in the diet. Linoleic acid (n-6) is found in vegetable seeds and oils such as safflower, sunflower, soybean, and corn. Linolenic acid (n-3) is found in dark green leafy plants and in some vegetable oils such as linseed, rapeseed, walnut, and blackcurrant. Deep cold water fatty fish are rich sources of marine n-3 fatty acids (EPA and DHA). The marine food chain is based on n-3 fatty acids which are present in plankton and algae on which fish feed (Nutr. Today, 10: March 1988).

The intriguing question of how a marine diet has protected Greenland Eskimos and the Japanese from coronary heart disease and some types of cancers resulted in a rapidly expanding interest in the protective role of n-3 fatty acids in the prevention and/or treatment of human cancers. Eskimos eat fish and meat from marine mammals rich in n-3 fatty acids. Japanese fishermen have the highest consumption of fish per capita, and clinical investigations with fish and fish oil supplements have demonstrated antithrombotic effects in some patients (Lancet, 1: 441, 1980; N. Engl. J. Med., 318: 549, 1988). Dr. Karmali performed pioneering research on the protective effects of n-3 fatty acids in cancer models at a time when the widely held notion was that n-3 polyunsaturated fatty acids, like the n-6 fatty acids, had tumor-promoting activity.

In addition to her other degrees, Dr. Karmali also earned a J.D. degree at Rutgers University School of Law in New Jersey, and she is now an attorney specializing in intellectual property and technology transactions at Stroock & Stroock & Lavan LLP in New York. She continues to publish articles on the chemopreventive and protective role of n-3 fatty acids in cancer and has published approximately 100 papers, reviews, and book chapters in all. She is an active member of the American Association for Cancer Research and of Women in Cancer Research. In addition, she was named Outstanding Young Woman of America, 1982, and was honored with the Outstanding Achievement Award, Aga Khan Health Board, 1987.

Sidney Weinhouse