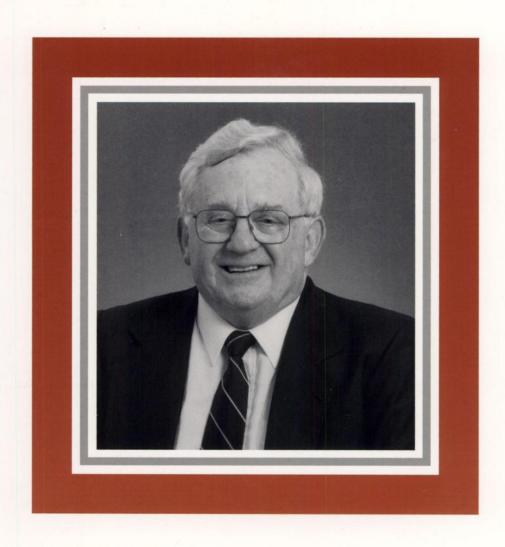


AN OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH



January 1, 1997 Volume 57 • Number 1 PP. 1–193 ISSN 0008-5472 • CNREA 8

AACR SPECIAL CONFERENCE IN CANCER RESEARCH

Basic and Clinical Aspects of Breast Cancer

March 7-12, 1997
The Keystone Resort, Keystone, Colorado

CONFERENCE CHAIRPERSONS

J. Carl Barrett / Research Triangle Park, NC Karen S.H. Antman / New York, NY Mary-Claire King / Seattle, WA

SCIENTIFIC PROGRAM

Keynote Addresses

Mary-Claire King / Seattle, WA Karen S.H. Antman / New York, NY

Basic Biology of the Breast

José Russo / Philadelphia, PA Marc E. Lippman / Washington, D.C. C. Kent Osborne / San Antonio, TX

Molecular and Cellular Aspects of Breast Cancer

Jerry W. Shay / Dallas, TX Mina J. Bissell / Berkeley, CA Martha R. Stampfer / Berkeley, CA

Genetic Predisposition to Breast Cancer

David E. Goldgar / Lyon, France **P. Andrew Futreal** / Durham, NC

Mechanisms of Hormone Action

V. Craig Jordan / Chicago, IL Myles A. Brown / Boston, MA Kenneth S. Korach / Research Triangle Park, NC

BRCA1 and BRCA2 Function/Biochemistry

Roy A. Jensen / Nashville, TN Wen-Hwa Lee / San Antonio, TX David M. Livingston / Boston, MA Frank J. Calzone / Thousand Oaks, CA

Experimental Models of Breast Cancer

Tak W. Mak / Toronto, Ontario, Canada Roger W. Wiseman / Research Triangle Park, NC Michael N. Gould / Madison. WI

Epidemiology of Breast Cancer

Walter C. Willett / Boston, MA
Maureen Henderson / Seattle, WA
Malcolm C. Pike / Los Angeles, CA
Mary S. Wolff / New York, NY

Clinical Aspects of Breast Cancer

Judy E. Garber / Boston, MA Jeffrey T. Holt / Nashville, TN M. John Kennedy / Baltimore, MD

Applicants are encouraged to submit abstracts for poster presentation.

Application deadline: January 3, 1997

Information and Application Forms

American Association for Cancer Research Public Ledger Building, Suite 816 150 South Independence Mall West Philadelphia, PA 19106-3483 215-440-9300 215-440-9313 (FAX) aacr@aacr.org (E-mail) http://www.aacr.org

THE NATIONAL NEUROFIBROMATOSIS FOUNDATION

announces the availability of

YOUNG INVESTIGATOR AWARDS

which will provide salary support not to exceed \$35,000 annually for period up to two years

and

RESEARCH GRANTS

which will provide up to \$60,000 for up to two years for research on the cause and treatment of neurofibromatosis 1 and 2

The deadline for filing applications for funding beginning July 1, 1997, is April 1, 1997

For information on applications please contact:

The National Neurofibromatosis Foundation
95 Pine Street, 16th Floor
New York, NY 10005
Tel: 212-344-6633; Fax: 212-747-0004
email: nnff@aol.com
Applications also available on the NNFF Website:
http://www.nf.org

The University of Michigan Human Breast Cell/Tissue Bank and Data Base

A human breast cell and tissue resource was developed at The University of Michigan as a result of an infrastructure grant awarded by the Department of Defense. The following materials are currently being provided to investigators engaged in breast cancer research:

- Histologic sections from matched neoplastic and nonneoplastic paraffin embedded tissues
- Frozen histologic sections
- Touch preps from freshly isolated breast cancer specimens
- Frozen human breast cancer cells isolated from primary or metastatic sites
- New human breast cancer cell lines
- Clinical and Pathologic Data for the cell and tissue samples

For a complete description of what is currently available in the University of Michigan Breast Cell/Tissue Bank and Database, and a request form, visit our homepage.

http://www.cancer.med.umich.edu/umbnkdb.html



SCIENTISTS

MANAGER, CELL BIOLOGY AND IMMUNOLOGY (Job #180)

Due to our growing client base, Southern Research Institute has a challenging opportunity for a manager in our Life Sciences Division. We are a world class contract research and development center serving government, industry, academia and individuals. The Life Sciences Division provides comprehensive preclinical drug development and testing capabilities.

Candidates for this position will have a Ph.D. in Cancer Biology or related field. Must have extensive expertise with *in vitro* techniques (e.g., tissue culture, molecular biology, immunology, flow cytometry, and image analysis). Duties include marketing, fiscal oversight, and proposal writing. Must successfully interact with clients in order to obtain independent funding. Prefer management experience. Should be familiar with GLP.

POSTDOCTORAL FELLOW (Job #104)

A postdoctoral position with the potential for advancement is available for a scientist with a Ph.D. in a Biological Science to join a team of researchers conducting *in vivo* and *in vitro* studies in cancer chemoprevention, chemotherapy, drug evaluation, and experimental model development. This research program has a 35-year record of productive anti-cancer drug development through NCI-contracted drug development as well as interactions with other scientists, private sponsors, and grant-funded research. The successful applicant will have experience in anticancer drug evaluation and good written and verbal communications skills. Experience conducting in vivo studies would be helpful.

To apply, send resume and cover letter referencing the appropriate job # to Jeff Prince, Human Resources, Southern Research Institute, P.O. Box 55305, Birmingham, Al 35255-5305; fax to (205)581-2200; e-mail to prince@sri.org. To learn more about SRI visit our home page on sri.org.

An Affirmative Action/Equal Opportunity Employer

Circulating Cancer Cells

Simple, Rapid Method

Cells are isolated from blood or bone marrow MNC's in less than one hour, without expensive equipment or repeated disposables costs.

Effective Enrichment

> 1000 fold enrichment allows increased data per cytospin, screening of larger samples and higher sensitivity for immunocytochemical or molecular techniques.

Viable Cells

The gentle technique leaves cells viable and intact, ready for direct use in PCR and RT-PCR. The enrichment effect means increased sensitivity and decreased background noise.

Dynabeads® anti-Epithelial Cell -

Biomagnetic separation technology for the enrichment and detection of circulating epithelial tumour cells in micrometastasis research.



Making Complicated Bioseparations Simple, Rapid and Reliable

AMERICAN ASSOCIATION FOR CANCER RESEARCH

The American Association for Cancer Research (AACR) is a professional society of over 11,000 scientists and physicians involved in all aspects of basic, clinical, and translational cancer research. Members of the AACR enjoy •

- subscriptions to Cancer Research, Cell Growth & Differentiation (CG&D), Cancer Epidemiology, Biomarkers & Prevention, and Clinical Cancer Research at reduced member rates
- reduced registration rates at the AACR Annual Meeting, Special Conferences, and International Meetings
- Employment Register, Directory of Members, public education activities, and many other benefits

Special programs to provide enhanced career development opportunities for minority scientists include

- Session on Career Development at Annual Meeting
- Mentorship Program
- Travel Awards to Scientific Meetings

American Association for Cancer Research

Public Ledger Building, Suite 816 150 S. Independence Mall West Philadelphia, PA 19106-3483 Telephone: (215) 440-9300

FAX: (215) 440-9313 / E-Mail: aacr@aol.com



The Cancer Institute of New Jersey (CINJ) is an academic cancer center located in central New Jersey which serves the state as a resource for cancer research, education and care. The CINJ is a recipient of a National Cancer Institute Planning Grant for the development of a major cancer center. Currently we seek the following:

CLINICAL RESEARCH OFFICE SUPERVISOR

Responsibilities: Planning, organizing, leading and evaluating the activities of Clinical Research Office. Ensures protocol compliance and continuity of care for protocol patients; supervises Research Nurses and Clinical Coordinators; evaluates, interprets, and integrates research findings into clinical practice; develops policies and procedures; and monitors budgets.

Qualifications: Bachelor's Degree in Nursing or advanced degree in Bioscientific field associated with clinical research. Master's Degree preferred. Registered Nurse licensure. Three to five years professional research related experience; Oncology background; demonstrated managerial skills necessary.

The CINJ offers a comprehensive benefits package. Please submit your resume to:

Ms. Cheryl Aboyme, Human Resources Administration-CROS
The Cancer Institute of New Jersey
195 Little Albany St, New Brunswick, NJ 08901
AA/EOE Employer M/F/D/V

A partnership of the University of Medicine & Dentistry of NJ, UMDNJ-Robert Wood Johnson Medical School, Robert Wood Johnson Univ. Hospital, St. Peter's Medical Center, New Brunswick Affiliated Hospitals and Hackensack University Medical Center.

THE SURGERY BRANCH, NATIONAL CANCER INSTITUTE, NIH, IS SEEKING PATIENTS FOR ONGOING CLINICAL TREATMENT PROGRAMS.

PATIENTS WITH THE FOLLOWING MALIGNANCIES ARE BEING TREATED UNDER COMBINED MODALITY OR INNOVATIVE IMMUNOTHERAPY PROGRAMS:

- METASTATIC MELANOMA AND KIDNEY CANCER
- STAGE II OR LOCALLY ADVANCED BREAST CANCER •
- METASTATIC COLORECTAL CANCER TO THE LIVER •
- LOCOREGIONAL GASTRIC OR PANCREATIC CANCER •
- MESOTHELIOMA, PULMONARY METASTASES, STAGE IIIA, B LUNG CANCER

OR ESOPHAGEAL CANCER •

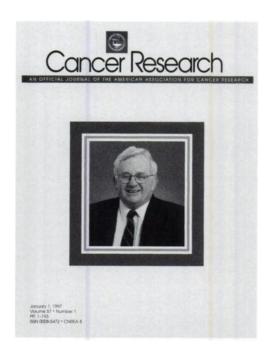
- LOCALIZED SOFT TISSUE SARCOMAS
 - PERITONEAL CARCINOMATOSIS•



CARE FOR ALL PATIENTS IS PROVIDED AT THE CLINICAL CENTER, NIH, BETHESDA, MARYLAND.

FOR MORE INFORMATION ON CANCER PROGRAMS, PLEASE CALL (301) 496-1533

A Public Service Announcement Courtesy of this Publication



In 1996, Ralph A. Reisfeld celebrated his 70th birthday and 39 years in biomedical research. After receiving a Ph.D. degree from Ohio State University in 1957, he spent 2 years in the Endocrinology Branch, National Cancer Institute, NIH, where he was the first to purify and characterize human chorionic gonadotropin. Dr. Reisfeld continued to pursue his interest in the biochemical characterization of pituitary hormones at Merck, Sharp, and Dohme in Rahway, NJ. He adapted the then novel techniques of polyacrylamide gel electrophoresis [Nature (Lond.), 195: 281, 1962], gel filtration [Nature (Lond.), 197: 1206, 1963], and cellulose ion-exchange chromatography (J. Biol. Chem., 239: 1777, 1964) to this task. During his early career, Dr. Reisfeld became known primarily for applying these methods to the characterization of biologically relevant proteins. It was this talent that provided him a staff position at the Laboratory of Immunology, National Institute of Allergy and Infectious Diseases, NIH, in 1963. There, together with Rose Mage and Sheldon Dray, he pioneered the immunochemical and immunogenetic characterization of rabbit immunoglobulin light chains with defined allotypic specificities. Together with Parker A. Small, Ettore Appella, and the late Jaroslav Rejnek, he was the first to demonstrate distinct differences in peptide composition (J. Mol. Biol., 16: 328, 1966) and electric charge among rabbit IgG light chains of defined allotype [Science (Washington DC), 152: 1253, 1966; Proc. Natl. Acad. Sci. USA, 60: 975, 1968; Biochemistry, 8: 2712, 19691.

Dr. Reisfeld's interest in biologically relevant molecules led him to investigate guinea pig and human histocompatibility antigens. He, together with Barry D. Kahan and the late Ruggero Ceppellini, first isolated and characterized these genetic markers [Proc. Natl. Acad. Sci. USA, 58: 1430, 1967 and 61: 897, 1968; Adv. Immunol., 12: 117, 1970; Science (Washington DC), 172: 1134, 1971]. These and other achievements recognized worldwide led to Dr. Reisfeld's work being listed several times among the most cited publications in the decade 1964-74.

Dr. Reisfeld was offered the position of Member at the Scripps Clinic and Research Foundation in La Jolla, CA, in 1970. Together with Soldano Ferrone and a large group of talented postdoctoral fellows and collaborators, he pursued intensive studies on the serological and molecular characterization of human histocompatibility antigens, resulting in over 100 publications from 1970–80. This included the serological and immunogenetic characterization of MHC class I antigens on cultured human lymphoid cell lines (J. Immunol., 108: 573, 1972; In Vitro, 11: 173, 1975; J. Immunol., 118: 1036, 1977). Dr. Reisfeld, together with M. D. Poulik,

was among a small group of investigators who first recognized β_2 -microglobulin as the light chain of MHC class I antigens and then investigated the biological significance of this association (Transplant. Rev., 148: 45, 1974; Immunogenetics, 2: 183, 1975).

In 1976, Dr. Reisfeld first became involved in cancer research, specifically with the biochemical and functional characterization of several melanoma- and neuroblastoma-associated antigens as targets for cancer therapy. He used his past experiences to pioneer such efforts (Cancer Res., 36: 2360, 1976; J. Natl. Cancer Inst., 60: 773, 1978) and developed several useful monoclonal antibodies for this purpose (Hybridoma, 1: 27, 1981; Cancer Res., 44: 681, 1984; Cancer Res., 44: 5914, 1984; J. Biol. Chem., 261: 10299, 1986; Cancer Res., 47: 1098, 1987). He was first to characterize a melanoma-associated chondroitin sulfate proteoglycan (Proc. Natl. Acad. Sci. USA, 79: 1245, 1982; J. Biol. Chem., 259: 12733. 1984) and demonstrated the eradication of established human melanoma and neuroblastoma tumors in nude mice by antibody-directed effector cells (J. Exp. Med., 161: 1315, 1985; Proc. Natl. Acad. Sci. USA, 83: 7893, 1986; Cancer Res., 47: 1098, 1987). Together with David A. Cheresh, Dr. Reisfeld made the initial finding that disialogangliosides G_{D2} and G_{D3} are expressed in adhesion plaques on human melanoma cells (Proc. Natl. Acad. Sci. USA, 81: 5767, 1984) and that a RGD-directed receptor on the surface of these cells exists in a divalent cation-dependent complex with ganglioside G_{D2} (J. Cell Biol., 105: 1163, 1987).

During the past 8 years, Dr. Reisfeld, working with Barbara M. Mueller and Stephen D. Gillies, has focused his research on the development of novel approaches for the effective immunotherapy of melanoma and neuroblastoma. Among their chief achievements was the observation that chimeric human/mouse monoclonal antibodies directed against human tumor-associated antigens effectively suppressed the growth of spontaneous melanoma metastases in immunodeficient mice (Cancer Res., 51: 2193, 1991). This ultimately led to two Phase I studies indicating that antiganglioside G_{D2} monoclonal antibodies could elicit several long-term complete and partial remissions in pediatric neuroblastoma patients (Cancer Immunol. Immunother., 35: 199, 1992; Eur. J. Cancer, 31A: 261, 1995). To further improve cancer immunotherapy, Dr. Reisfeld and his collaborators developed a novel approach that made use of antibody-interleukin 2 fusion proteins to stimulate T-cell killing of autologous melanoma cells (Proc. Natl. Acad. Sci. USA, 89: 1428, 1992) and to target this cytokine to tumor sites, thereby effectively suppressing growth of hepatic human neuroblastoma metastases (Proc. Natl. Acad. Sci. USA, 91: 9626, 1994) and established pulmonary and hepatic metastases of human melanoma in SCID mice (Proc. Natl. Acad. Sci. USA, 93: 2702, 1996). Most recently, Dr. Reisfeld, together with Jürgen C. Becker and Dr. Gillies, demonstrated that this targeted interleukin 2 therapy induced T-cell mediated eradication of established murine metastatic melanoma as well as long-lived and transferable tumor immunity in mice (J. Exp. Med., 183: 2361, 1996; J. Clin. Invest., 98: 1, 1996).

Dr. Reisfeld has over 350 publications and has received two 7-year Outstanding Investigator Grants from the National Cancer Institute recognizing his research achievements. He belongs to many professional societies, including the American Association for Cancer Research (AACR), of which he has been a member since 1976. His participation in AACR activities includes his serving on the Local Arrangements Committee [1983 and 1992 (Chairperson)] and his chairing of the AACR Special Conference, "Molecular Approaches to Cancer Immunotherapy," which was held in Asheville, NC, in November 1993. He is also a member of many advisory groups and editorial boards. Regarding the latter, we are particularly appreciative of Dr. Reisfeld's loyal service as an Associate Editor for Cancer Research from 1983–96 and his assistance on the Editorial Advisory Board of Clinical Cancer Research since its inception in 1995.