

American Cancer Society Awards 143 Research Grants to Investigators at 83 Institutions Nationwide

Grants total more than \$51 million in the second of two cycles for 2009

Atlanta 2009/04/27 -The American Cancer Society, the largest non-government, not-for-profit funding source of cancer research in the United States, has awarded 143 national research and training grants totaling more than \$51 million in the second of two grant cycles for 2009. The grants go into effect beginning July 1, 2009.

Since its founding in 1946, the American Cancer Society's extramural research grants program has devoted about \$3.4 billion to cancer research and has funded 42 researchers who have gone on to win the Nobel Prize, primarily early in their careers. The program emphasizes investigator-initiated, peer-reviewed proposals, and has supported groundbreaking research that has led to critical discoveries leading to a better understanding of cancer and cancer treatment. Below are highlights of some of the most exiting new grants:

American Cancer Society Research Professors

- Charis Eng, M.D., Ph.D., Cleveland Clinic Foundation, has been one of the most influential and productive researchers working to define genetic markers that can predict cancer risk. She has studied the relative risk for colon cancer in individuals having a combination of a genetic mutation and a defined set of clinical features, such as the number and type of colon polyps. Her work holds the promise of increasing the ability to accurately diagnose heritable neoplastic disorders, predictively test family members, and assess and manage cancer risk.
- Arul M. Chinnaiyan, M.D., Ph.D., University of Michigan, made the startling discovery that most prostate cancers are associated with an alteration in chromosomes that allows testosterone to inappropriately turn on a transcription factor critical to the growth of prostate cancer cells. This landmark finding is being translated into important new diagnostic, prognostic, and therapeutic options to overcome many of the current challenges associated with prostate cancer.

Molecular Genetics and Biochemistry of Cancer

- Roger A. Greenberg, M.D., Ph.D., University of Pennsylvania School of Medicine, has discovered a novel protein (MERIT40) that is involved in BRCA1 dependent DNA repair. He will examine the roles of this newly discovered protein to provide new ways to improve the diagnosis and treatment of breast and ovarian cancers.
- Weihua Zhang, M.D., Ph.D., University of Houston, is looking at activities of a receptor for Epidermal Growth Factor (EGF), which helps control cellular growth. These activities may provide new therapeutic approaches to inhibiting the uncontrolled cell growth of some cancers.
- Hans-Guido Wendel, M.D., Memorial Sloan-Kettering Cancer Center, will test whether proteins that translate the mRNAs expressed from oncogenic genes respond to small molecules as potential cancer treatments.

Cancer Cell Biology and Metastasis

- John Wilkinson, Ph.D., Wake Forest University, has found that in prostate cancer, apoptosis inducing factor (AIF) promotes cell survival, unlike its previously established role in promoting cell death (via apoptosis). Dr Wilkinson's work has the ultimate goal of developing new and better treatments for prostate cancer, the most commonly diagnosed cancer in American men.
- Lorraine Santy, Ph.D., Pennsylvania State University, is studying the mechanisms by which growth factors induce cancer cells to migrate and metastasize. Unlike many studies that focus on the homing of metastatic cells to distant organs, Dr Santy's interest is in how growth factors initiate the process of cell movement. This

work could supply a critical new understanding of why mutations called Ras mutations are so common in so many different cancers.

Preclinical and Translational Cancer Research

- Kimberly Stegmaier, M.D., Dana-Farber Cancer Institute, Boston, Mass. has discovered a novel target for treatment of acute myeloid leukemia (AML), a devastating cancer of the white blood cells with few therapeutic options available. She will test a drug candidate, R788, for safety and activity prior to consideration for analysis in humans.
- Siddharth Balachandran, Ph.D., Fox Chase Cancer Center, has discovered how to make cells that have become resistant to interferons regain drug sensitivity by eliminating two proteins. Blocking the activity of these proteins could dramatically improve the therapeutic benefit of interferon in a broad range of cancer patients.
- Charles Cobbs, M.D., California Pacific Medical Center, is testing the novel hypothesis that infection of cancer stem cells by human cytomegalovirus (HCMV) leads to the development of brain cancer. If true, currently available antiviral drugs or vaccines might be effective in the prevention and treatment of brain cancer.

Clinical Cancer Research and Immunology

- Irene Georgakoudi Ph.D., Tufts University, is focused on developing non-invasive, optical imaging methods that could enable improved cancer detection by finding abnormal cells in the uppermost layer of tissue that covers the body cavities and organs. If cancerous changes are detected when they are confined to this superficial layer, they could be treated more effectively.
- Wei-Qun Ding, Ph.D., University of Oklahoma Health Sciences Center, will explore anticancer activity of docosahexaenoic acid (DHA), which is found in fish oil. Dr. Ding has found that DHA inactivates an enzyme that is important for the growth of tumor cells, and this grant will further the understanding of DHA's anticancer activity and provide a biological basis for the development of novel strategies in cancer prevention and therapy using DHA.
- Jun Yan, M.D., Ph.D., University of Louisville, is developing novel ways to induce immune responses against breast cancer which would lead to production of antibodies and T cells responsive to Her-2/neu. This innovative strategy for developing an anti-tumor vaccine could be the basis for future breast cancer clinical trials, particularly for patients in whom antibody therapy fails.

Cancer Control and Prevention Research

- Jennifer Temel, M.D., Massachusetts General Hospital, will examine the discrepancy between what patients who are terminally ill and their families want, honest and open communication about their prognosis and options, and the avoidance by doctors and nurses of such conversations. Dr. Temel will examine the barriers that clinicians have in talking about this difficult issue and will focus on methods to help clinicians begin such dialogues with their patients.
- Eileen Shinn, M.D., Ph.D., MD Anderson Cancer Center, will test a theory-based intervention to increase adherence to rehabilitative exercises among patients with neck and head cancer. Patients who do not perform these exercises are likely to have permanent problems with eating and swallowing, which can affect quality of life. The efficacy of three strategies will be compared: information alone; practical tips and inspirational quotes provided by previous cancer patients; and skills training.
- Margaret Rosenzweig, Ph.D., University of Pittsburgh, will explore whether a 45 minute intervention (developed with input from African American breast cancer survivors) that uses video, graphics, teaching tools and supportive testimony can improve adherence to treatment for breast cancer.
- Carlos Blanco, M.D., Ph.D., Research Foundation for Mental Hygiene, will explore approaches to address symptoms of depression in African American and Latino breast cancer patients that can decrease adherence

to treatment. Interpersonal Psychotherapy (IPT) a time-limited therapy shown to be effective in treating depression across a wide variety of patients, will be compared to Brief Supportive Therapy (BSP), a relatively unstructured psychotherapy that has shown some promise in depressed patients with cancer.

Health Professional Training Grants in Cancer Control

- Wendy Landier, MSN, a doctoral student at the University of Hawai'i, will explore ways to improve adherence to oral maintenance chemotherapy in young patients with acute lymphoblastic leukemia. Although overall survival with contemporary therapy now exceeds 80 percent, 5-year survival rates in some populations vary significantly, and pediatric patients who do not complete their treatment are at risk for relapse.
- Daniel S. Reuland, M.D., MPH, University of North Carolina, Chapel Hill, is one of three primary care physicians who will receive time, training, and mentorship from senior researchers and faculty to strengthen research and teaching skills in the area of cancer control for Latino / Hispanic populations. In particular, he proposes to develop a culturally and linguistically appropriate computer-based tool to deliver information about colon cancer screening.
- Beverly Bagwell, MSW, Saint Jude Children's Research Hospital, will lead a team that will train an intern to deal with pediatric cancers and treatment regimens as well as the psychosocial impact of cancer and treatment on the child and family. The hospital is one of eleven sites that will receive funding to support the training of a master's student in oncology social work

Grant applications are ranked on the basis of merit by one of several discipline-specific Peer Review Committees, each of which includes 12 to 25 external scientific advisors or expert peers from around the country. The Council for Extramural Grants, a committee of senior scientists, recommends funding based on the relative merit of the applications, the amount of available funds, and the Society's objectives. No member of the American Cancer Society's Board of Directors or National Assembly may serve on a Peer Review Committee or as a voting member on the Council for Extramural Grants.

The Council for Extramural Grants also approved 99 research grant applications that could not be funded due to budgetary constraints. These "pay-if" grants represent work that passed the Society's rigorous, two-tiered multi-disciplinary review process but exceed the Society's current funding resources, and which will be funded if additional monies become available. "These grants serve as an important reminder that there continues to be promising research we would like to fund but cannot with our current resources," said Elizabeth T.H. Fontham, M.P.H., Dr.P.H., national volunteer president, American Cancer Society.

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