American Cancer Society Awards New Research and Training Grants

Nation's largest non-government, not-for-profit cancer research funder awards 83 grants totaling $44 million in second of two cycles for 2014

The American Cancer Society, the largest non-government, not-for-profit funding source of cancer research in the United States, has awarded 83 national research and training grants totaling $44 million in the second of two grant cycles for 2014. The grants will fund 83 investigators at 50 institutions across the United States; 73 are new grants while 10 are renewals of previous grants. The grants go into effect January 1, 2015.

Among those newly awarded are Xi He, Ph.D. and Matthew Meyerson, MD, PhD, who will receive prestigious American Cancer Society Research Professor Awards. Dr. He is an internationally recognized leader in the field of "wnt signaling." His professorship will support his continued work into the molecular pathway, which is defective in many cancers including lung and colorectal cancers. Dr. Meyerson is a Professor of Pathology at Harvard Medical School and Director of the Center for Cancer Genome Discovery at Dana Farber Cancer Institute and the Broad Institute at MIT. He is regarded as the international leader in the field of lung cancer genomics. His professorship will support continued work that has already defined the underlying genetic basis for almost three in four lung cancers, providing the framework for personalized treatment of patients with the disease.

For more than 65 years, the American Cancer Society has funded research and training of health professionals to investigate the causes, prevention, and early detection of cancer, as well as new treatments, cancer survivorship, and end of life support for patients and their families. Since its founding in 1946, the American Cancer Society's extramural research grants program has devoted more than $4 billion to cancer research and has funded 47 researchers who have won the Nobel Prize.

Below are additional highlights of the new grants.

Douglas Brownfield, PhD, of Stanford University will look for new ways to target a type of cell recently identified by his lab and others as the most prominent cell of origin for adenocarcinoma, the most common form of lung cancer. The long-term goal of the work is to elucidate how the cells, called alveolar type (AT) 2 cells regenerate, and use that information to identify new ways of diagnosing transformed AT2 cells at earlier stages of malignancy and to find new treatments that target the cell of origin for lung adenocarcinoma.

Jennifer Cash, PhD, at the University of Michigan will lead a team investigating a molecule strongly linked to cancer metastasis: the enzyme P-Rex1. Currently, most anti-cancer drugs only work to inhibit cancer growth, and there is an important unmet need for therapeutics that inhibit the ability of cancer to spread throughout the body. P-Rex1 is an attractive protein to target for the development of anti-metastasis drugs, but its structure and function are not well-understood. The team will add to the understanding of the enzyme to reach the long-term goal of developing selective chemical probes that could ultimately serve as therapeutic leads targeting P-Rex1.

Jaeda Coutinho-Budd, PhD at the University of Massachusetts Medical School, will study how glioma, the most common, malignant, and devastating human tumor arising from the central nervous system, develops. Dr. Coutinho-Budd will investigate the as-yet undefined molecular factors that control normal glial growth, invasiveness, and survival, in order to better understand how these processes go awry to transform beneficial glial cells into destructive tumors. The goal is to enhance knowledge as to how healthy glia become destructive, and potentially identify new therapeutic targets to fight back against these detrimental brain tumors, thereby improving patient prognosis.

David Hui, M.D. at the University of Texas MD Anderson Cancer Center will launch a new study studying the treatment of shortness of breath, one of the most common and distressing symptoms among cancer patients. Few treatment options are available due to a lack of research. Dr. Hui and colleagues will investigate whether high-flow oxygen devices delivering heated and humidified oxygen can help cancer patients, particularly in

patients with normal oxygen levels, who constitute the majority of patients with shortness of breath. They theorize that high-flow oxygen will lead to improvements in shortness of breath, function, and quality of life in cancer patients, having the direct potential to improve the quality of life of cancer patients with this devastating symptom.

The Council also approved 99 research applications for funding totaling more than $56 million that could not be funded due to budgetary constraints. These “pay-if” grants represent work that passed the Society’s multi-disciplinary review process but are beyond the Society’s current funding resources. These “pay-if” grants can be and often are subsidized by individual donors who wish to support research that would not otherwise be funded. In 2013, individual donors stepped up to contribute more than $8.8 million in additional funding, financing 46 additional “pay-if” grants.

For more information about the American Cancer Society Research Program, please visit http://www.cancer.org/research.
