# American Cancer Society Awards New Research and Training Grants

## 175 Research and Training Grants to Fund Investigators at 93 Institutions

The American Cancer Society, the largest non-government, not-for-profit funding source of cancer research in the United States, has awarded 175 national research and training grants totaling $79,073,250 for fiscal year 2013. The grants will fund investigators at 93 institutions across the United States; 164 are new grants while 11 are renewals of previous grants. The grants will go into effect July 1, 2013.

Among those newly awarded is Stephen J. Meltzer, MD, of Johns Hopkins University, who will receive a prestigious American Cancer Society Clinical Research Professorship. Dr. Meltzer received the grant award for his pioneering work in the field of esophageal cancer; a cancer whose incidence is increasing in the U.S.

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 $3.9 billion to cancer research and has funded 46 researchers who have gone on to win the Nobel Prize.

Below are highlights of new grants.

**Stephen J. Meltzer, MD**, of Johns Hopkins University is being awarded a prestigious American Cancer Society Clinical Research Professorship. Dr Meltzer is researching molecular biomarkers that can not only detect Barrett's esophagus but can also determine in which people the condition is likely to progress to esophageal cancer. The current test for Barrett's esophagus, a precancerous condition, is gastrointestinal endoscopy, an invasive procedure too expensive for general screening. Detecting the disorder can facilitate early detection of esophageal cancer, which is most often detected in advanced stages.

**Timothy C. Hallstrom, PhD**, of the University of Minnesota-Twin Cities, is studying the genetic mechanism that causes retinoblastoma, a rare cancer of the eye in infants. Dr. Hallstrom is investigating a cellular protein that regulates cell growth to identify the mechanism by which the protein controls cell death. His work could serve as the basis for genetic therapies to halt growth of cancer cells in retinoblastoma and other tumors.

**Rene L. Galindo, MD, PhD**, of the University of Texas Southwestern Medical Center, Dallas, focuses his research on childhood cancer. He is particularly interested in rhabdomyosarcoma, an aggressive cancer of the body's soft tissues. Survival is poor among children with this disease, and those who do survive can have life-long disfigurements that result from surgery and chemotherapy. Dr. Galindo is investigating the mechanism by which an abnormal gene converts a normal cell into a cancer cell with the goal of developing therapies to prevent this process.

**Tatiana Kalin, MD, PhD**, of the Cincinnati Children's Hospital Medical Center is researching a new approach to combating the progression of lung cancer, the leading cause of cancer-related deaths in in the United States. She is exploring how a particular cell protein called FoxM1, which is abundant in lung cancer and many other cancers, causes a cancer to grow and spread to other organs. Her research will increase understanding of how lung cancer progresses at the molecular level, paving the way for therapies that target the disease at this most basic stage.

**Nicholas Marshall, PhD**, of the University of Texas at Austin, is studying a cell protein called kynurenine that enhances cancer cell growth and suppresses the body's immune system. Various studies have shown that the higher the level of kynurenine in the blood, the poorer the prognosis for a person with cancer. Dr. Marshall is working on a technology to degrade kynurenine to inhibit tumor production and strengthen the immune system.

**Alec Kimmelman, MD, PhD**, of the Dana-Farber Cancer Institute is seeking new treatments for pancreatic cancer, one of the most deadly of human cancers. The disease is currently highly resistant to all available treatments, including chemotherapy and radiation. Nearly all pancreatic cancers have cellular mutations that activate a cell protein called the Kras oncogene. Dr. Kimmelman is studying what triggers this oncogene to cause cancer. Such an understanding is basic to development of effective treatment of this disease.

**Russell Kent Pachynski, MD**, of Stanford University is investigating how the human immune system can be stimulated and manipulated to eradicate cancer. Dr. Pachynski is interested in targeting cancer at the cellular level to increase the cell's immune response. He is studying the role that a cell protein called chemerin plays in producing immunity to cancer, and he has demonstrated in experiments in mice that tumors exposed to chemerin grow more slowly and are significantly smaller. His studies could serve as the basis for development of immunotherapies to treat many different types of cancer.

**Hongbo Chi, PhD**, of St. Jude Children's Research Hospital is researching the role that a protein called mTOR plays in regulating human T-cell growth and function. T-cells are the body's disease-fighting agents. Dr. Chi is focusing on how mTOR functions and maintains T-cell equilibrium and how disruption of this equilibrium from mutations in mTOR can lead to many cancers, including T-cell acute lymphoblastic leukemia. His goal is to translate his research into new cancer treatments.

**Marina K. Holz, PhD**, of Albert Einstein College of Medicine is focusing her research on ways to improve treatment of the nearly 60% of all breast cancers that are estrogen receptor-positive. Current endocrine therapies, such as tamoxifen or aromatase inhibitors, are effective treatments for only about half of these cancers. Dr. Holz is studying how a cell-growth regulator, mTOR, can be combined with endocrine therapies to create more broadly effective treatments for this most common breast cancer.

**Zhongsheng You, PhD**, of Washington University School of Medicine is studying a type of DNA mutation called a double-strand break that can lead to cancer. Most human cancers are caused by DNA mutations, but the body's cells normally repair themselves when breaks occur. When this self-repair doesn't happen, cancer can develop. Dr. You seeks to understand the processes by which the body monitors DNA mutations and repairs them. A fundamental understanding of these processes is vital to development of effective treatments.

**Robert Gramling, MD, DSc**, of the University of Rochester is directing his research at two key missions of the American Cancer Society – to advance the science of palliative care and to ameliorate health disparities. Dr. Gramling is exploring how health care providers communicate with patients and family about prognosis in advanced cancer and how racial and ethnic culture affects communication. Effective communication is essential for crafting individual treatment plans that honor patient preferences and goals in their cultural context.

**Jinping Xu, MD**, of Wayne State University is conducting psychosocial research to learn why 90% of men with low-risk prostate cancer detected by prostate-specific antigen screening choose immediate, aggressive treatment instead of active surveillance. Surgery and radiation treatment can cause diminished sexual function and urinary incontinence while active surveillance involves monitoring the cancer and treating only if it progresses. Dr. Xu's two-year study of white and black men with newly diagnosed low-risk prostate cancer will elucidate how and why men choose a specific treatment and what role race or geographical location play in treatment choice.

**Egbert Grinage, MD**, of Yale University is the 2013 recipient of the American Cancer Society Audrey Meyer Mars International Fellowship in Clinical Oncology. Dr. Grinage , a pediatric intensivist, has worked for 16 years in Belize to provide care to children with cancer. Because treatment facilities have been unavailable in Belize for these children, he has collaborated with cancer care hospitals in the United States and Mexico to have them treated. Under this fellowship, he will obtain skills needed to provide pediatric oncology services for the first time in Belize, in the Karl Heusner Memorial Hospital in Belize City.

**Denalee O'Malley, MSW**, of Rutgers, The State University of New Jersey, seeks to develop best clinical practices and educational strategies for clinicians to employ in meeting the needs of the growing population of cancer survivors. In her American Cancer Society-sponsored dissertation study, "Enhancing Survivorship Care: A Focus on the Patient Centered Medical Home," she will explore the role of social workers in providing coordinated care with a whole-person orientation in the newly envisioned primary care medical home.

**Catherine Cherwin, MS**, of the University of Wisconsin – Madison, proposes a doctoral dissertation to study clusters of gastrointestinal symptoms resulting from cancer treatment that occur in people with leukemia and lymphoma. Treatment for these blood disorders often involves large doses of medication, causing multiple, severe gastrointestinal symptoms. An overview of chemotherapy-related gastrointestinal symptoms that co-occur will enable development of interventions to improve patient comfort during treatment thereby enhancing their quality of life.

**Eribeth Penaranda, MD**, of the University of Texas Medical Branch, Galveston, will use her American Cancer Society Cancer Control Career Development Award to improve her screening and teaching skills in cervical cancer detection in minority populations. Dr. Penaranda is particularly interested in a new self-screening technique for infection with the human papilloma virus, which can cause cervical cancer. Self-screening can overcome cost and psychosocial barriers to screening. Dr. Penaranda will conduct a clinical trial to assess attitudes of Hispanic women toward self-screening for the virus.

Additionally, four institutions were awarded master's training grants in clinical oncology social work. These grants support programs in qualifying institutions that train clinical oncology social workers to provide psychosocial services to persons with cancer and their families. The training stipends, awarded to two students at each institution, will introduce social workers to the special needs of cancer patients and their families, and prepare the students for direct clinical practice. The recipients of institutional training grants in 2013 are:

- Roswell Park Cancer Institute, Buffalo, NY
- Children's Healthcare of Atlanta, Atlanta, GA
- Washington University, St. Louis, MO
- Beth Israel Medical Center, New York, NY

The Council also approved 71 research applications for funding totaling $37,074,750 that could not be funded due to budgetary constraints. These "pay-if" grants represent work that passed the Society's multi-disciplinary review process and are beyond the Society's current funding resources, so are available for funding by individual donors who wish to fund research that would not otherwise be funded. In 2012, 10 million donor dollars were donated to fund 32 "pay-if" grants.

To learn more about the American Cancer Society's research program, see: Research Programs and Funding on cancer.org

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