# American Cancer Society Awards New Research Grants

The American Cancer Society, the largest non-government, not-for-profit funding source of cancer research in the United States, has approved funding for 42 research grants totaling $33.8M. Grant applications undergo a rigorous, independent, and highly competitive peer review process. The newly approved grants will fund investigators at 33 institutions across the United States. Grant-funded projects will begin on July 1, 2021.

Highlights of the latest cycle include:

**Dhyan Chandra, PhD, Roswell Park Cancer Institute** Dr. Chandra's project will build on previous groundbreaking work which found that mitochondrial dysfunction is one of the key reasons African Americans with prostate cancer have worse health outcomes when compared with Caucasian-Americans, and that this dysfunction is often caused by cytochrome c-deficiency in prostate tumors. Their current project will investigate agents that restore cytochrome c and explore whether restoration of cytochrome c and mitochondrial function improves the efficacy of current prostate cancer therapeutics. Their work could have immediate applicability to treat prostate cancer patients and reduce racial disparities.

**Luke Hoeppner, PhD, University of Minnesota** Small cell lung cancer is the most aggressive subtype of lung cancer, with only 7% of patients surviving over five years. Dr. Hoeppner's team previously showed that several genes in the dopamine pathway promote drug resistance in lung cancer. Their work will now investigate the hypothesis that altering the dopamine signaling pathway is a new approach to inhibit small cell lung cancer progression and drug resistance, which could translate to more effective treatment options.

**Todd Lucas, PhD. Michigan State University** African-Americans are at an increased risk of developing and dying from colorectal cancer (CRC). With this project, Dr. Lucas aims to identify whether providing options for at-home CRC screening reduces African-American colorectal cancer screening disparities, and to decipher whether use of culturally-targeted implementation intentions can enhance conversion about screening. These findings could potentially reduce significant and costly cancer disparities through behavioral prevention.

**Caitlin Murphy, PhD, University of Texas Southwestern Medical Center, Dallas** This project will explore if and how prescription co-payments impact medication adherence among breast cancer patients from low-income households. Almost half of low-income and uninsured patients report financial problems related to their cancer diagnosis, including out-of-pocket costs, medical debt, and even bankruptcy.  Dr. Murphy's results will inform ways to improve delivery of effective breast cancer treatment, ensuring equal access and affordable breast cancer care for vulnerable, underserved patients.

**Senthil K. Radhakrishnan, PhD, Virginia Commonwealth University** Triple-negative Breast Cancer (TNBC) is an aggressive disease that disproportionally affects African-American women. Dr. Radhakrishnan's project will build on previous work showing that blocking a protein called Nrf1 could lead to increased efficacy of an existing drug therapy, Carfilzomib. In this application, Radhakrishnan's team will test if administration of Carfilzomib together with Nrf1 pathway inhibition results in a significant reduction in tumor and metastatic burden. If successful, their work could lead to the development of rational drug combinations that could improve outcomes for TNBC patients.

**Christine M. Daley, PhD, University of Kansas Medical Center Research Institute** American Indians use chewing tobacco at higher rates than any other racial or ethnic group in the United States. As a result, their rates of oral, esophageal, and pancreatic cancers are rising. To address this disparity, Dr. Daley's team has developed a culturally tailored quit chewing tobacco program for American Indians called All Nations Snuff Out Smokeless (ANSOS), and will use grant funds to

test, tweak, and expand the program.

The American Cancer Society Extramural Discovery Sciences currently supports research in a wide range of cancer-related disciplines at over 190 institutions. With an investment of more than $5 billion since 1946, the ACS is the largest private, not-for-profit source of cancer research funds in the U.S., and has funded 49 researchers who have gone on to be awarded the Nobel Prize. The ACS primarily funds early career investigators, giving the best and the brightest a chance to explore innovative ideas at a time when they might not find funding elsewhere.

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

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