Hope Funds for Cancer Research

Press Release
For Immediate Release
Media Contact: John Archer Wells
media@hope-funds.org
212-769-2170

Hope Funds for Cancer Research 2019 Fellows Dinner set for July 26

NEWPORT, RI -- May 25, 2019 -- Hope Funds for Cancer Research, dedicated to advancing innovative research for the most difficult-to-treat cancers, will hold its 2019 Fellows Dinner on Friday, July 26th at Marble House, the legendary Vanderbilt mansion in Newport, Rhode Island. The Chairs for the event are Mr. & Mrs. Samuel Gillson, Dr. & Mrs. Adrian Hobden, and Mr. & Mrs. Gary A. Jobson.

The Fellows Dinner is held annually by Hope Funds for Cancer Research to provide support for programmatic activities and to raise funds for postdoctoral fellowships in cancer research. At this event the Hope Funds recognizes its graduating Fellows and welcomes new Fellows.

"This event, a dinner set in one of Newport's grand historic homes, will welcome a remarkable group of scientists and physicians, including Hope Funds Alumni and Scientific Advisory Board members," said Dinner Co-Chair Adrian Hobden, Ph.D.

This year's graduating Fellows are Carols Campos, Ph.D. working at University of Washington, Karuna Ganesh, M.D., Ph.D. working at Memorial Sloan-Kettering Cancer Center, and Rajesha Rupaimoole, Ph.D. who did his fellowship at Beth Israel Deaconess Medical Center at Harvard University and is now at a biotechnology company, Shepherd Therapeutics.

"The 2019 Fellows Dinner will assemble many of the greatest minds in cancer research and treatment. We look forward to discussing their exciting advancements during a relaxed evening in a magnificent setting," stated Dr. Lewis C. Cantley, Chairman of the Board of Hope Funds for Cancer Research.

2019 Graduating Fellows

Carlos Campos, Ph.D., University of Washington, in the laboratory of Richard Palmiter, Ph.D.

Dr. Campos is working on cachexia, a common manifestation of many illnesses, including cancer. The syndrome consists of anorexia, muscle wasting, bodyweight loss, and distress - symptoms that decrease quality of life and increases patient morbidity and mortality. Nonetheless, the mechanisms underlying cachexia are poorly understood and current treatment strategies are disappointing. His studies examine the neural mechanisms contributing to cancer cachexia. They have identified a specific neuronal subset in the brain that mediates many of the debilitating cachexia symptoms caused by cancer and chemotherapy (e.g. anorexia, lethargy, and anxiety). These findings are groundbreaking, not only because they implicate a discrete neuronal population in cancer cachexia, but also because inhibiting these neurons simultaneously alleviates most cachexia symptoms. This is in contrast to the current clinical strategy of treating cachexia symptoms individually with multiple nonspecific medications, which can actually exacerbate certain cachexia symptoms and produce additional negative side effects. The aim of his future studies is to understand how these neurons are activated by cancer and the mechanisms by which this neural circuit mediates cancer-induced symptoms. Moreover, because they can selectively inhibit neurons that cause cancer anorexia, they can study the impact of food intake on weight loss and tumor biology in a controlled experimental setting. Altogether, his findings are expected to provide a fundamental understanding of mechanisms underlying cancer cachexia, and ultimately guide future development of therapeutic strategies for treating cachexia symptoms. Dr. Campos received his B.S. in Neuroscience and Biology, B.A. in Psychology and Ph.D. in Neuroscience from Washington State University.

Karuna Ganesh, MA, MBBChir, Ph.D., Memorial Sloan Kettering Cancer Center, in the laboratory

of Joan Massague, Ph.D.

Dr. Ganesh is addressing metastasis, the major cause of cancer death. Once a cancer has spread to organs outside its site of origin, chemotherapy and targeted therapies may induce partial remissions, but are invariably followed by resistance and lethal relapse. The molecular mechanisms underlying the persistence and therapy resistance of tumor-repopulating metastasis stem cells are poorly understood. To directly study metastasis stem cells in patient tumors, her lab is using a novel cell-surface marker to isolate quiescent, chemoresistant cells from colorectal cancer liver metastases of patients who have been treated with chemotherapy and then undergo liver surgery at Memorial Sloan-Kettering. Using cutting-edge organoid technology, they are growing 3-dimensional cultures from these tumors, enabling, for the first time, direct interrogation of the properties of patient-derived therapy-resistant metastasis stem cells. By profiling the RNA in these cells, we will identify crucial molecular pathways required for the survival and re-emergence of metastatic cancer. Further, they use patient-derived organoids to screen for selective inhibitors of metastasis stem-cell propagation. This approach identifies novel mechanisms and therapeutic vulnerabilities of metastatic cancer, which will be poised for rapid clinical translation. Dr. Ganesh received her B.A., M.A., MBBChir and Ph.D. from the University of Cambridge.

Rajesha Rupaimoole, Ph.D., Shepherd Therapeutics

Dr. Rupaimoole did his Hope Funds Fellowship at Beth Israel Deaconess Medical Center, in the laboratory of Frank Slack, Ph.D. focusing on lung cancer, which takes the number one position among cancer types with an estimated death of 160,000 in year 2015 in USA and records to have aggressive metastasis, with clinical resistance to existing chemotherapies. This warrants non-conventional treatment strategies based on novel therapeutic combinations. MicroRNAs (miRNAs) represent a significant advance in our understanding of cancer biology and have potential to become powerful therapeutics. One such miRNA is miR-34, a key tumor suppressor that regulates important oncogenes such as MET, MYC, and JAG1, while it's low expression is a biomarker for poor outcome in NSCLC patients. To define the potential of miRNA therapy for non-small cell lung cancer (NSCLC), we began working with mouse model, with activated KRAS and mutant p53 (KP), which is more representative of human NSCLC. When treating KP with mice with MRX34, a clinical grade nanoparticle formulation of miR-34, significant stabilization of the disease were observed. However, it was not sufficient to cause tumor regression. Current work investigates the synthetic lethality of MRX34 microRNA therapy for NSCLC, MRX34-sensitization of drug resistant Kras:p53 mutant NSCLC cells by targeting oncogenic miRNAs, if MRX34 treatment shows therapeutic potential in EGFRL858R;p53, and erlotinib-resistant EGFRL858R+T790M;p53 mutant mice, and to discover serum and tumor biomarkers in the Kras;p53 mutant mice treated with MRX34 that will be useful for PK, PD, and efficacy analyses in the upcoming clinical trial. Dr. Rupaimoole received his M.S. in Biotechnology from University of Texas, San Antonio and his Ph.D. in Biomedical Sciences from University of Texas, Houston.

Hope Funds Fellowships

Hope Funds for Cancer Research funds research for highly innovative projects that challenge the traditional paradigms of understanding the causes, mechanisms, progression, disease markers or risk factors of the most difficult-to-treat cancers, including pancreatic, lung, liver, sarcomas, esophageal, brain, gastric, bone and ovarian cancers; and rare leukemias, lymphomas and MDS. These cancers are insidiously aggressive illnesses that kill most of their victims within months, even with aggressive chemotherapy. The Trustees of the Hope Funds for Cancer Research believe that funding research that could lead to breakthroughs in these areas and increase life expectancy in these types of cancers is at the core of its mission. Hope Funds for Cancer Research considers each of the following criteria, with a strong emphasis on the innovation of the project, in evaluating research candidates: innovation and originality of the project, significance and direct relevance of the research proposal, approach and conceptual framework of the project, qualifications of the researcher and the researcher's mentors, and quality of the overall research environment where the scientist is working.

About the Hope Funds for Cancer Research
The Hope Funds for Cancer Research was formed in 2006 to establish a funding vehicle that would take a rational scientific, medical, and investment approach to making grants for the most interesting and promising research efforts to address the most difficult-to-treat cancers, including pancreatic, lung, liver, sarcomas, esophageal, brain, gastric, bone and ovarian cancers; and rare leukemias, lymphomas and MDS. The Trustees of Hope Funds believe that funding research that could lead to breakthroughs in these areas and increase life expectancy in these types of cancers is at the core of its mission. Hope Funds for Cancer Research is an independent and unaffiliated non-profit organization under 501(c)(3) of the Internal Revenue Service's code.

For additional information about the organization, please visit www.hope-funds.org or call 401-847-

3286.

Hope Funds for Cancer Research: Advancing innovative research in understudied cancers

Hope Funds for Cancer Research is an independent and unaffiliated non-profit organization

5/25/2019 - 6
- End -