



Hope Funds for Cancer Research

Press Release

Hope Funds Alumna Co-Authors Study on New Lung Cancer Therapy

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

Newport, RI - November 27, 2019 - A former Hope Funds for Cancer Research fellow working at the Massachusetts Institute of Technology is co-author of a study which indicates that repurposed drugs could address aggressive small cell lung cancer.

Leanne Li, MD, PhD, a postdoctoral fellow working in the Jacks Lab at Koch Institute for Integrative Cancer Research at MIT, co-authored the study with Sheng Rong Ng as described in an article by MIT News, "New pathway for lung cancer treatment." [Click here to read the article.](#)

Dr. Li is 2016 Hope Funds for Cancer Research Bernard & Judy Cornwell Fellow.

"Hope Funds is delighted to learn of these findings shared by Dr. Li and the team at Jacks Lab, and their potential for treating small cell lung cancer patients," said Leah Rush Cann, Chair of the Hope Funds Executive Committee.

"We at Hope Funds continue to believe that funding outstanding postdoctoral researchers such as Dr. Li is the most productive and cost effective way of supporting important cancer research in the most challenging and understudied cancers," said Mrs. Cann.

About Leanne Li, MD, PhD

Dr. Li received her MD from National Taiwan University in 2008 and PhD in Molecular Life Sciences (Cancer) from the École Polytechnique Fédérale de Lausanne in 2013 and works at Massachusetts Institute of Technology in the laboratory of Tyler Jacks, Ph.D. "Traditionally, cancer is viewed as a disease driven by genetic mutations, which convey growth and survival advantage in developing cancer cells; a form of natural selection leads to outgrowth of the most fitted clone and tumor formation ensues. To inhibit tumor formation, the traditional approach to cancer research and treatment has been to identify drugs that target the effects of those mutations. Therefore, many targeted therapies have been developed, aiming to eliminate cancer by abolishing their growth/survival advantage. Unfortunately, this widely-used approach to develop targeted therapies has yielded survival benefits merely in a minor subset of patients bearing corresponding mutations. Tumors develop resistance to the drugs, leading to relapse, often depressingly soon after treatment. Furthermore, recent research have demonstrated that cancer is not a purely clonal disease, but rather strikingly heterogeneous. Multiple subpopulations carrying different mutations may arise within each tumor. Whether and how these subpopulations may contribute to tumor progression remains largely unexplored. Our current study takes an innovative approach and aims to elucidate the crosstalk between the heterogeneous populations within a tumor using mouse models of small cell lung cancer, a highly aggressive and metastatic cancer. Our data demonstrates that different subpopulations in this cancer type collaborate for growth and the formation of distant metastases, potentially through a novel mechanism in which one subpopulation provides an appropriate niche for the other subpopulation during the metastatic process. We hypothesize that disrupting the cooperation between these different subpopulations in cancer could potentially diminish or even abolish cancer



metastasis."

About the Jacks Lab

Tyler Jacks is a Howard Hughes Medical Institute Investigator, Daniel K. Ludwig Scholar and David H. Koch Professor of Biology at MIT. The Jacks Lab is interested in the genetic events contributing to the development of cancer. The focus of its research has been a series of mouse strains engineered to carry mutations in genes known to be involved in human cancer. Its studies are supported by various sources including the National Institutes of Health, Howard Hughes Medical Institute, Ludwig Fund for Cancer Research, Lustgarten Foundation and Koch Institute for Integrative Cancer Research.

About Hope Funds for Cancer Research

The Hope Funds for Cancer Research was formed in 2006 by a group of concerned individuals who have experience in oncology, intellectual property law, investment banking, philanthropy, sociology, and the arts to establish a funding vehicle that would take a rational scientific, medical, and investment approach to granting money to the most interesting and promising research efforts to address the most difficult-to-treat cancers, including pancreatic, lung, liver, sarcomas, esophageal, brain, gastric, and ovarian cancers, and rare lymphomas, leukemias 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 our mission. The Hope Funds for Cancer Research is a 509 (a)(1) charity under 501(c)(3) of the Internal Revenue Service's code. For additional information about the organization, please visit <http://www.Hope-Funds.org> or call 401-847-3286.

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