Donors Pledge $2 Million Dollars to Happy Lungs Project in Matching Grant to Fight Lung Cancer

The Happy Lungs Project, Inc., a 501c3 non-profit, was awarded a $2 million matching grant for research to fight RET positive non-small cell lung cancer.

AUSTIN, TEXAS, USA, May 24, 2022 /EINPresswire.com/ -- The Happy Lungs Project, Inc., a 501c3 non-profit, was awarded a $2 million matching grant for research to fight RET positive non-small cell lung cancer (NSCLC). RET positive lung cancer is caused by a mutation that allows cancer cells to grow out of control. This "driver mutation" occurs in 1-2% of NSCLC patients, and is more common among young, never-smokers, often the mothers of school-age children. J Clin Oncol. 2020;38(11):1209-1221. doi:10.1200/JCO.19.02551. With 2 million new lung cancers worldwide in 2020, about 1.6 million are NSCLC, and of these, 60%–70% are in advanced stage IV at the time of diagnosis. Oncol., 21 December 2021. doi.org/10.3389/fonc.2021.761042.

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> *Dr. Steve Artandi, M.D., Ph.D.*

The Happy Lungs Project's scientific advisory board — composed of leading researchers and clinicians at MD Anderson, Memorial Sloan Kettering, Massachusetts General Hospital and Stanford Cancer Institute — identified the most important research needed to find new treatments and a cure for RET-driven lung cancer. This research includes:

1. Develop a RET NSCLC registry to collect clinical data and patient specimens.
This project will develop a multi-center registry of patient information and tumor samples for research at major cancer centers (Stanford, Mass General, Sloak Kettering, UCLA, MD Anderson).

2.Characterize the molecular landscape of RET-fusion and resistance mechanisms from patients.
RET registry material will be used to generate structural information about RET-mutated proteins and the changes that lead to resistance to inhibitor medications.

3. Generate RET-mutation cell lines and animal models, including models resistant to RET-inhibitors.
These will be used to understand the emergence of drug resistance and to facilitate pre-clinical/animal laboratory drug testing.

4. Investigate drug repurposing for treatment of RET-driven NSCLC and RET inhibitor resistance.

Existing FDA-approved drugs can be screened for potential efficacy against RET-driven NSCLC and tested in animal models to produce new therapeutic candidates, individually or in combination. A drug repurposing approach will provide for rapid clinical applicability.

5. Apply successful pre-clinical (drug repurposing) strategies to registry-aggregated RET patients.
Once registry patients are identified in sufficient number, clinical trials of new RET therapies can be conducted.

6. Develop T-cell receptors with therapeutic potential against RET-fusions.
Immunotherapy, a treatment based on activating the immune system to combat cancer, will be investigated by engineering T-cells to recognize and attack specific RET targets.

According to Dr. Steve Artandi, M.D., Ph.D., Director of the Stanford Cancer Institute and Professor of Medicine and Biochemistry at Stanford University, “The Happy Lungs Project has been instrumental in building a research consortium of the leading cancer centers, identifying critical NSCLC research, raising funds and creating research milestones.” Critical cancer research has already been funded by the Happy Lungs Project, and those projects are currently underway.

In addition, the Happy Lungs Project is hiring a Director of Research who will vet all research projects, analyze grant applications, and oversee funded projects. According to Dr. Daniel Stromberg, Scientific Liaison, “The research director will be key to the success of the organization, allowing the Happy Lungs Project to ensure that donor dollars go to the best projects which have the highest likelihood of finding reliable treatments and a cure.”

The Happy Lungs Project remains dedicated to changing the outcome for people affected by RET positive NSCLC through research and collaboration with leading scientists and clinicians.

For more information, or to become involved as a donor or volunteer, please contact info@happylungsproject.org.

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