



THE  
**HAPPY LUNGS**  
PROJECT

## Impact Report

### Funding Hope

Since 2021, HLP has supported innovative research at leading cancer centers including MD Anderson, UT Southwestern, Massachusetts General Hospital, and Memorial Sloan Kettering to advance the understanding and treatment of RET-driven lung cancer.

#### Addressing RET Drug Resistance

- HLP-funded scientists have been focused on uncovering the mechanisms behind patient resistance to current RET-targeted drugs and developing more effective therapies.
- They've mapped how the different alterations or fusions in the RET molecule affect drug response and identified more effective RET-specific medicines.
- Analysis of the RETgistry, a collection of genetic information of RET tumors, found that most RET inhibitor resistance is due to the activation of non-RET pathways, guiding new clinical studies testing drug combinations (e.g., the amivantamab trial).

#### Developing New Therapies

- A new RET-specific drug effective against resistant lung cancer and able to penetrate the brain (a common relapse site) is currently in a Phase I clinical trial in Japan with future plans of expanding the studies globally.
- Researchers are developing innovative immunotherapies with promising lab results, including T-cell therapies that recognize and destroy RET cancer cells.
- They've identified additional proteins (e.g., HER3, TROP2, MET) on RET tumors that can be targeted using Antibody-Drug Conjugates (ADCs) or CAR T-cell therapy.

#### Building Collaborative Resources

- HLP helped establish the RETgistry and the Lung Cancer Genetics Study to centralize real-world patient and genetic data, speeding up scientific and clinical discoveries.

#### Accelerating Future Research via Collaboration

- HLP is supporting the establishment of a national RET Research Coordination Center to share data, foster collaboration and accelerate treatment development.
- Led by Dr. John Heymach, MD Anderson Cancer Center; Dr. David Carbone, The Ohio State University Wexner Cancer Center; and Dr. Julia Rotow, Dana-Farber Cancer Institute, the Center will initially focus on studying “drug-tolerant persister” cells—cancer cells that survive treatment and cause relapse—to develop new therapies, including immunotherapies, and vaccines.

## Now, we need your support.

This is a critical moment. We need your immediate support to fully launch the national RET Research Coordination Center and raise \$1.5 million to unite leading researchers. Your donation funds a powerful, unified network, accelerating discoveries and bringing faster, life-saving treatments to RET patients.

**Invest in collaboration and hope, and help us turn groundbreaking research into life-saving realities.**



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