

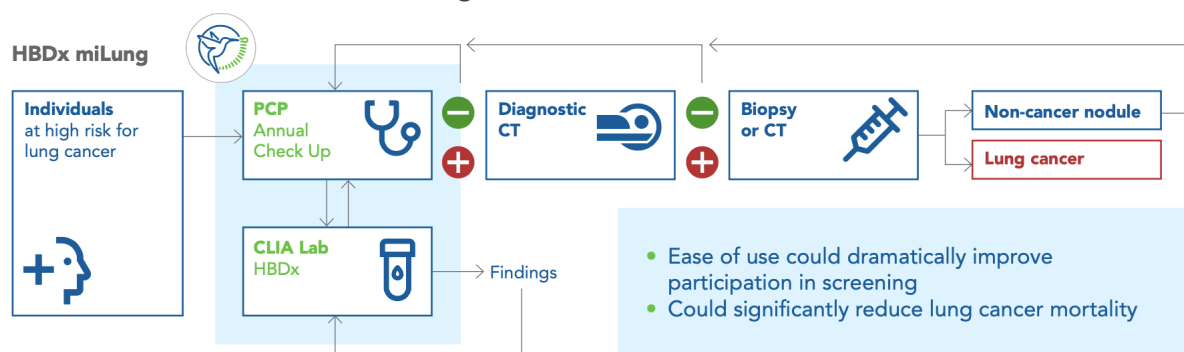
Small RNA blood test for early detection of lung cancer



The only way to successfully fight cancer is to **find cancer early**. Early detection of lung cancer through low-dose CT screening reduces mortality (NLST, NELSON), but unfortunately is underutilized. Hummingbird's miLung blood test could be performed at the annual physician visit and could **dramatically improve participation** and thus **reduce mortality**.

Solution

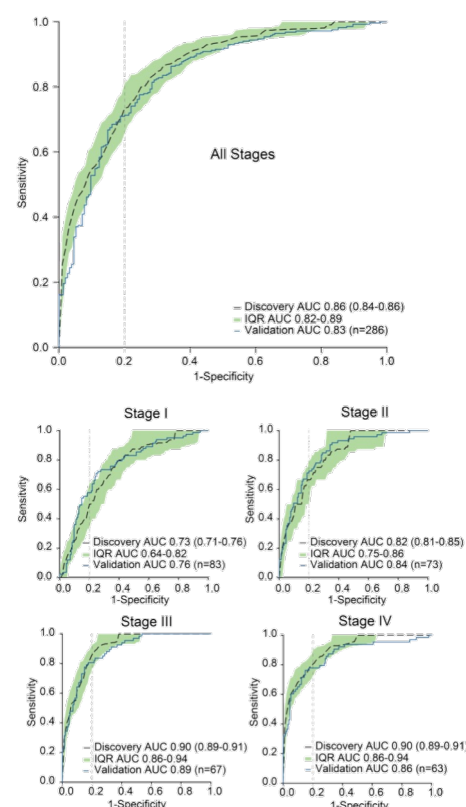
- Lung cancer detection from whole blood sample
- Unique approach integrates blood-based small RNAs from both tumor and host immune response
- Easy sampling: single blood draw, easy handling, no pipetting minimizing preanalytical noise
- Analyse on NGS or PCR with significantly lower costs and a quicker turnaround time
- Accurate detection at all cancer stages



Clinical validation

- **1,384** individuals meeting the National Lung Screening Trial demographic eligibility criteria for lung cancer
- **Objective:** Determine the accuracy of a small RNA based screening test that could be deployed in the primary care setting
- **Result:** Diagnostic model with an AUC of 0.86 for discovery cohort and 0.83 in the validation cohort across all cancer stages. Data suggests that small RNA-based blood tests are a viable alternative to LDCT screening for early detection of lung cancer

- All patients recruited prospectively (blood taken before diagnosis/invasive biopsy/surgery)
- Cohorts represent intended use population (age > 55, pack years > 30)
- All stages and histological subtypes represented (overall AUC 0.86)



References

- **Early Detection of Lung Cancer using small RNAs**
Sikosek T, Horos R, Trudzinski F, Jehn J, Frank M, et al.,
Journal of Thoracic Oncology 2023