

New Study

npj | precision
oncology

Validation of Histopathology-Based Deep Learning Algorithms for the Detection of Actionable NSCLC Biomarkers

Multi-center retrospective study

Christian Rolfo *et al.*, npj Precision Oncology, 2026



[Read the full study](#)

Imagene



THE OHIO STATE UNIVERSITY
COMPREHENSIVE CANCER CENTER

hoag



TEL AVIV SOURASKY
MEDICAL CENTER
ICHILOV



SHEBA
Tel HaShomer
City of Health

Prof. Iris Barshack
Head of the Institute of Pathology
Sheba Medical Center



"Leveraging Imagen AI's foundation model and computational expertise, we demonstrate at scale that routinely available H&E slides can advance biomarker research and enable more accessible, timely biomarker profiling, now integrated into our routine pathology workflow to support more informed and personalized patient care."

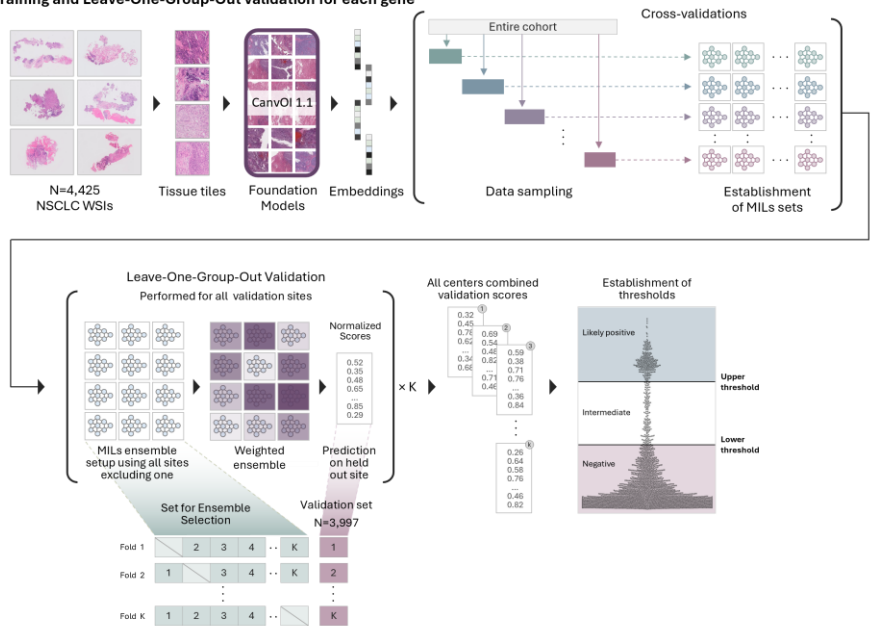


"This work illustrates how large-scale foundation models, combined with real-world data, can leverage complex biological information and extract actionable insights to support evidence-based oncology research. Providing immediate biomarker profiling can help reduce time to molecular testing and expand access to timely, targeted treatment strategies for patients."

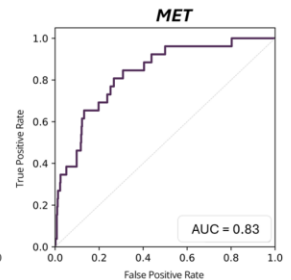
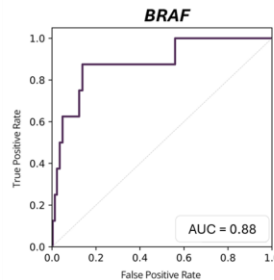
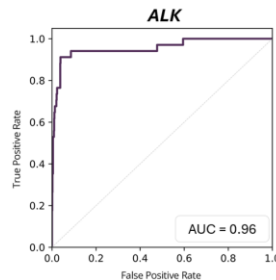
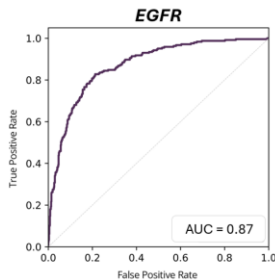
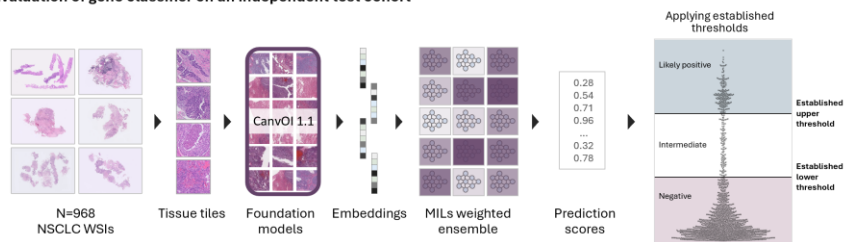


Prof. Christian Rolfo
Director, Medical Oncology
Associate Director for Early Phase Clinical Trials
Ohio State University Comprehensive Cancer Center

A. Training and Leave-One-Group-Out validation for each gene



B. Evaluation of gene classifier on an independent test cohort



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