MEDIA CONTACT: Amanda Harper
OSUCCC – James| Media Relations
614-685-5420 | Amanda.Harper2@osumc.edu

NOTE TO EDITORS: High resolution b-roll and images are available for download at https://bit.ly/3zGoMge (password: nodule).

FOR IMMEDIATE RELEASE: Thursday, Nov. 10, 2022

New program aims to identify lung cancers earlier that may otherwise go undetected

Combo of artificial intelligence tools, subspecialized treatment team enables hospital to help evaluate and assess incidental lung nodule findings

COLUMBUS, Ohio – A common imaging test used for injuries and illnesses could have a secondary and important benefit: capturing subtle, early signs of lung cancer.

While computed tomography (CT) scans can provide important information to diagnose illnesses and conditions, these imaging tests can also reveal other unrelated issues, known as "incidental" findings, that raise questions beyond what the physicians were originally looking for.

The new Lung Nodule Program at The Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute (OSUCCC – James) combines the benefits of automated natural language processing tools with a subspecialized treatment team to create a system for flagging and methodically evaluating incidental lung nodule findings to capture subtle signs of lung cancer. Experts estimate this program could result in hundreds of lives saved annually through early detection.

Over 75 million CT scans are performed annually in the United States and approximately 1.5 million lung nodules are detected incidentally every year. "Data suggests that these findings would be missed 70% of the time, which is striking, but it also demonstrates the tremendous opportunity we have as a medical community to create a solution," said Dr. Jasleen Pannu, a pulmonologist who specializes in lung cancer at the OSUCCC – James and leads the effort.

Pannu estimates that roughly 10% of all lung nodules identified through chest CT scans performed to investigate other conditions are cancerous; however, determining which spots need additional evaluation can be challenging.

According to the American Cancer Society, more people die annually of lung cancer than breast, colon, and prostate cancer combined – largely due to late-stage diagnosis.

"Lung cancer is difficult to detect early because it does not produce any symptoms in its earliest stages. It presents as a very small spot in the lung, which is not large enough to block any airways or any blood vessels. And because of that, it may go undetected for a long time," said Pannu. "But incidental lung nodule findings can open a new path for early detection guided by methodically identifying the patients with lung nodules at most risk for lung cancer and ensuring they get timely interventions."

About the OSUCCC – James Lung Nodule Program
Launched this year as a collaboration of the OSUCCC – James and The Ohio State University Wexner Medical Center, the Lung Nodule Program was established to create a system for

capturing incidental chest CT lung nodule findings – with the aid of machine learning tools – to determine which patients need additional evaluation.

For a large health system like the Ohio State Wexner Medical Center, this results in a significant volume of CT scans – on average 10,000 annually – flagged in the electronic health record for follow-up evaluation. Pannu estimates that 90% of these lung spots will be benign.

“We do not want any of these cases to be missed, so creating a process to pinpoint precisely who may benefit most from a biopsy is critical,” said Pannu. “It is a balancing act of providing the appropriate level of follow-up testing for each patient while also working within the significant staffing resources needed to gather, assess and triage large volume of incidental findings in a timely way.”

The OSUCCC – James Lung Nodule Program brings together experts from interventional pulmonology, radiology, surgery, oncology, pulmonology, and other specialty disciplines. A multidisciplinary lung nodule board meets weekly to discuss individual cases and formulate a management plan for both incidental lung nodule findings and complex cases needing lung biopsy. In-person or telemedicine visits with the patients occur in a multidisciplinary clinic held each week at the OSUCCC – James Thoracic Oncology Center.

Lung cancer screening appointments
Lung cancer screening is still recommended for individuals at higher risk for lung cancer. In 2021, the U.S. Preventive Services Task Force updated its lung cancer screening recommendations to include annual screening for lung cancer with low-dose CT scans in adults between the ages of 50 to 80 years who have a 20-pack-year smoking history and currently smoke or have quit within the past 15 years. For more information about lung cancer screening at the OSUCCC – James, visit cancer.osu.edu/lungcancerscreening or call 1-800-293-5066.

To learn more about lung cancer treatment at the OSUCCC – James, visit cancer.osu.edu/lungcancer.

-30-