Study Demonstrates Reliability of Trained Dogs in the Identification of Malignant Pulmonary Nodules

Toronto, Canada – September 24, 2018 – Findings from a recent study demonstrate that trained dogs can discriminate the presence of malignant pulmonary nodules with extremely high reliability. Angela Guirao, M.D., Thoracic Surgery Service, Hospital Clinic Barcelona, presented these findings today at the International Association for the Study of Lung Cancer’s (IASLC’s) 19th World Conference on Lung Cancer (WCLC) in Toronto, Canada.

In follow-up to a prior report that found trained dogs can identify the presence of lung cancer (LC) in exhaled air samples of patients with and without large LC diagnoses, Dr. Guirao and team designed a prospective, controlled study investigating the potential of trained dogs in the discrimination of malignant and benign pulmonary nodules. Exhaled air samples were collected from 30 patients with indeterminate pulmonary nodules before diagnostic and therapeutic surgery and 77 people with neither LC nor pulmonary nodules. Researchers presented the dog, trained via a reward-based method on the association of smell patterns, with air samples of an approximate ratio of 1:4, presence of pulmonary nodules to absence of pulmonary nodules, to be marked according to malignancy.

The dog successfully identified malignant samples with a sensitivity of 0.97, a specificity of 0.99, a predictive positive value of 0.97 and a predictive negative value of 0.99. Twenty-seven of 30 nodules were correctly identified as lung cancer-positive, verified by the outcomes of pathology reports.

“Having previously established that trained dogs can sniff out the presence of lung cancer in exhaled gas samples, we are thrilled to identify the ability to differentiate between malignant or benign nodules as well,” said Dr. Guirao. “These discoveries underscore an opportunity to improve the early detection of lung cancer and malignant nodules, pairing trained dogs with established technology for accurate diagnoses.”

About the WCLC

The World Conference on Lung Cancer (WCLC) is the world’s largest meeting dedicated solely to lung cancer and other thoracic malignancies, attracting over 7,000 researchers, physicians and specialists from more than 100 countries. The conference will cover a wide range of disciplines and unveil research studies and clinical trial results. For more information, visit http://wclc2018.iaslc.org/. Follow the conference on social media with: #WCLC2018.
About the IASLC

The International Association for the Study of Lung Cancer (IASLC) is the only global organization dedicated solely to the study of lung cancer and other thoracic malignancies. Founded in 1974, the association’s membership includes more than 7,500 lung cancer specialists across all disciplines in over 100 countries, forming a global network working together to conquer lung and thoracic cancers worldwide. The association also publishes the *Journal of Thoracic Oncology*, the primary educational and informational publication for topics relevant to the prevention, detection, diagnosis and treatment of all thoracic malignancies. Visit [www.iaslc.org](http://www.iaslc.org) for more information. You can also follow the IASLC on [Twitter](http://twitter.com), [Facebook](http://facebook.com), [LinkedIn](http://linkedin.com) and [Instagram](http://instagram.com).

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