

Press release – For immediate release
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Median Technologies announces outstanding performance for its iBiopsy® Lung Cancer Screening CADx¹ to accurately characterize malignant vs benign lung nodules based on a large-scale patient cohort

- Results show cutting-edge performance of 95.2% sensitivity and 95.7% specificity for lung nodule characterization that could significantly impact lung cancer screening programs adoption.
- The large-scale study is based on a cohort of 1,696 patients with a total of 15,608 lung nodules.
- Further results on a fully automated end-to-end lung cancer screening CADe/CADx including nodule detection and characterization are expected in Q4, 2021.

Sophia Antipolis, France – Median Technologies (ALMDT:PA) announces outstanding performance based on a large-scale lung cancer screening (LCS) patient cohort to characterize malignant vs benign lung nodules based on a deep learning algorithm on low-dose chest computed tomography. Median plans to demonstrate how the potential of its iBiopsy AI powered Computer Aided Diagnosis (CADx) product for LCS could significantly impact the accuracy, consistency, and adoption of LCS worldwide. The Median Technologies iBiopsy® Lung Cancer Development Plan was launched in [February 2021](#), as part of the Company's strategic positioning in early-stage disease diagnosis.

Lung cancer is the number one cancer killer globally, with an estimate of 1.8m deaths, accounting for 25% of all cancer deaths in 2018. This is largely due to late-stage diagnosis of the disease associated with poor 5-year survival. Major international studies have shown that LDCT lung cancer screening can reduce mortality by 44% (NELSON Trial, 2018). Despite being included in US screening guidelines and the increased adoption by the medical community, screening efforts still suffer from low rates of adoption. The low patient enrollment is commonly attributed to the difficulty to characterize malignant from benign nodules leading to high rates of false positives, unnecessary follow up procedures and raising concerns on the economic viability of screening programs.

The study was based on a cohort of 1,696 patients from the National Lung Screening Trial cases (NLST) consisting of a total of 15,608 lung nodules. The training set was based on 1,224 patients with 11,392 nodules and the test set was based on 472 patients having a total of 4,216 nodules.

The performance of iBiopsy® CADx for the characterization of lung nodules shows an AUC of 0.991 and an outstanding sensitivity of 95.2% for a specificity of 95.7% and is a major progress for Lung Cancer Screening worldwide.

¹ A radiological CADe device is "intended to identify, mark, highlight or otherwise direct attention to portions of an image that may reveal abnormalities during interpretation of images by the clinician." A CADx device is "intended to provide information beyond identifying abnormalities, such as an assessment of disease." Source: FDA

“We have achieved an outstanding performance with our innovative deep learning algorithm for lung nodule characterization. This promising and powerful digital biomarker could have a profound impact on lung cancer screening and help to dramatically reduce the 1.8m lung cancer deaths per year by diagnosing lung cancer patients at a stage that could save their lives.”, highlights Fredrik Brag, CEO and founder of Median. *“Our plan in the coming months is to perform an additional large-scale study for an end-to-end lung cancer screening digital biomarker. Results of this study including both nodule detection (CAdE) and characterization (CAdx) are expected in Q4, 2021”*, Brag added.

Median’s AI digital biomarker could significantly contribute to eliminate barriers to widespread LCS adoption. It could have a huge impact on saving patients’ lives for the deadliest form of cancers as well as providing substantial savings by eliminating unnecessary healthcare spendings.

About iBiopsy®: iBiopsy® is based on the most advanced technologies in Artificial Intelligence (AI) and Data Science (DS), benefiting from Median’s expertise in medical image processing. iBiopsy® targets the development of AI digital biomarkers, to be used in several indications for which there are unmet needs regarding early diagnosis, prognosis and treatment selection in the context of precision medicine. iBiopsy® currently focuses on Lung Cancer, Liver Cancer (HCC) and Liver Disease (NASH)

Since 2020, Median’s iBiopsy® development program has been supported by the European Investment Bank (EIB) through a financial loan of €35 million under the Juncker Plan, the European Fund for Strategic Investments for research and innovation projects developed by companies with high growth potential.



About Median Technologies: Median Technologies provides innovative imaging solutions and services to advance healthcare for everyone. We leverage the power of Imaging Phenomics to provide insights into novel therapies and treatment strategies. Our unique solutions for medical image analysis and management in oncology trials and iBiopsy® for imaging phenotyping, together with our global team of experts, are advancing the development of new drugs and diagnostic tools to monitor disease and assess response to therapy. Median Technologies supports biopharmaceutical sponsors and healthcare professionals around the world to quickly and precisely bring new treatments to patients in need. This is how we are helping to create a healthier world.

Founded in 2002, based in Sophia-Antipolis, France, with a subsidiary in the US and another one in Shanghai, Median has received the label “Innovative company” by the BPI and is listed on the Euronext Growth market. FR0011049824– ticker: ALMDT. Median is eligible for the French SME equity savings plan scheme (PEA-PME), listed on the Euronext® PEA-PME 150 index and has been awarded the Euronext European Rising Tech label. For more information: www.mediantechnologies.com

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