![median - The Imaging Phenomics Company®]

Press release – For immediate release
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Promising results on the use of the iBiopsy® platform
In the context of measuring the anti-tumor immune response

- Establishment of a biomarker derived from CT imaging to characterize the tumor microenvironment
- A biomarker for identifying patients responding to treatment based on anti-tumor immunity of CD8+ cells

Sophia Antipolis, France - Median Technologies (ALMDT), The Imaging Phenomics Company®, today announced the promising results of a first retrospective study on the implementation of the iBiopsy® platform for the analysis of patients with solid tumor cancer who are likely to be responsive to immuno-oncology treatments such as those based on immune checkpoint inhibitors (ICIs)

These results relate to one of three clinical development plans for the iBiopsy® imaging biomarker discovery platform, which integrates cutting-edge artificial intelligence technologies. The various clinical development plans for iBiopsy® were previously communicated on April 20.

The mode of action of immuno-oncology is to stimulate the immune system in cancer patients to elicit an immune response that destroys cancer cells. Immunotherapy, which brings together several categories of molecules already on the market or under development, is a very big trend in the therapeutic arsenal in oncology and today represents real hope for patients. However, only 20 to 40% of patients respond to these therapies[1]. In these small populations, and despite the side effects that can be extremely penalizing (toxicity), the success rates are then high.

In clinical routine, the implementation of the different types of immuno-oncological treatments are based on the identification of patients who are likely to respond. This is also the case in the context of drug development, where stratification of patients to be included in clinical trials is vital to ultimately increase the chances of successful commercialization of immuno-oncology treatments. The identification of susceptible responder patients is currently based on immunohistopathological tests and specific tumor genetic tests (companion diagnostics of the molecules used) derived from tumor biopsies, an invasive procedure with sampling problems. The non-invasive identification of responder / non-responder patients to immunotherapies is a public health issue for patients, payers and the pharmaceutical industry.

The infiltration of CD8$^+$ cells into tumor tissue plays a key role in building anti-tumor immunity. The retrospective study conducted by Median Technologies used CT images of a cohort of 44 patients with primary liver cancer. The objective of this study was to combine the extraction of visual signatures and the construction of a deep learning model optimizing the prediction of the infiltration of CD8$^+$ cells in the tumor microenvironment. In the study conducted by Median, the expression of the CD8 gene was verified by biopsy and was used to quantify CD8$^+$ cells in the tumor microenvironment and for training the predictive model of iBiopsy®. It was thus shown that in this cohort, the CD8$^+$ signature of iBiopsy®

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[1] https://www.inserm.fr/information-en-sante/dossiers-information/immunotherapie-cancers

compared to that obtained by traditional radiomic methods[2] was a better predictor of the tumor microenvironment with AUC 0.93 vs AUC 0.67 respectively. Finally, iBiopsy® CD8$^+$ signature was also shown to be predictive of patient prognosis.

This non-invasive predictive biomarker shows promise in predicting the immune phenotype of tumors and in evaluating the effectiveness of anti-PD-1 and PD-L1 treatments for cancer patients. These results need to be confirmed in larger independent patient cohorts.

"These first results are extremely promising and demonstrate, once again, the relevance of our iBiopsy® approach, which allows for AI technologies to extract the content hidden in standard medical images and to generate non-invasive biomarkers. iBiopsy® makes it possible to quantify in real time the tumor microenvironment and in particular the immune signature relevant to immunotherapy approaches," said Fredrik Brag, CEO and co-founder of Median. *"The identification of predictive biomarkers of the response to immuno-oncology treatments has the potential to significantly improve the management of a large population of cancer patients, and so far, not one solution has done a good job addressing this need. These predictive biomarkers are the foundation of precision medicine. For pharmaceutical companies, the stakes are also colossal: between 2017 and 2019, the number of molecules under development in immuno-oncology increased by 91% worldwide and more than 5,200 active clinical trials in immuno-oncology are currently listed in the global trials database clinicaltrials.gov.[3]"*

About iBiopsy®: Based on the most advanced AI technologies and with expertise in data science, Median's iBiopsy® proprietary imaging platform allows for the extraction of non-invasive imaging biomarkers, which are the disease "signatures". These biomarkers, obtained from standard medical imaging modalities are used both in the field of clinical development and clinical routine in which medical needs regarding disease detection, treatment options and follow-up of patients are still unmet and have yet to foster the promise of predictive and precision medicine. Several indications are already targeted for liver diseases (NASH and HCC) and for the use of immuno-oncology drugs.

Median's iBiopsy® development program is supported by the European Investment Bank (EIB) through a financial loan of €35 million under the Juncker Plan, the European Fund for Strategic Investments, which aims to support 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 Euronext Growth market (ISIN: FR0011049824, ticker: ALMDT). For more information: www.mediantechnologies.com

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[2] https://pubmed.ncbi.nlm.nih.gov/30120041/

[3] https://www.nature.com/articles/d41573-019-00167-9

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