

Press release: Lucida Medical receives CE marking for PI™, its AI-machine learning software for detecting prostate cancer from MRI, enabling faster and more accurate prostate cancer detection

Cambridge, UK – 28th May 2021: Lucida Medical Ltd, the Cambridge, UK based start-up, has completed CE marking for its new machine learning-based prostate cancer detection software, Prostate Intelligence™ (PI™). Lucida is one of the first companies in the world to commercialise artificial intelligence software to identify cancer in prostate MRI scans. This crucial milestone enables the cutting-edge technology to be deployed within the UK's National Health Service (NHS) and European healthcare systems.

Lucida Medical's goal is to significantly improve the prostate cancer diagnostic pathway with technology that finds cancer more accurately by analysing MRI, enabling radiologists to save time and patients to receive the best possible diagnosis and treatment. It will help providers offer RAPID 'one stop shop' diagnosis, enabling patients to have an MRI, report and biopsy in one visit, and ensure consistent reporting quality across imaging networks.

CE marking allows PI™ to help radiologists assess and report MRI imaging studies, support the decision whether or not to biopsy, and accurately target biopsies where needed. Prostate cancer is the most common cancer in men in Europe, Africa and North and South America, with 1.4 million diagnosed worldwide each year and 375,000 deaths. Earlier detection can help reduce rates of advanced and metastatic disease and in turn greatly improve patients' experience, outcomes, and life expectancy.

Lucida Medical's Prostate Intelligence™ technology uses radiogenomics, machine learning and image processing to analyse magnetic resonance imaging (MRI) scans. Results presented at the European Congress of Radiology (ECR) in March 2021 indicate that it can help automate labour-intensive tasks such as marking out lesions, and avoid unnecessary invasive biopsies, with unprecedented accuracy and consistency.

MRI is now the preferred technique to assess a range of cancers, including prostate and metastatic disease. However, the current process of radiologists interpreting oncological MRI requires specialist training and is labour-intensive, creating a growing skills challenge. The shortfall in the UK radiologist workforce is forecast to reach 43% by 2024.

Prostate cancer diagnosis using MRI represents a major step forward compared to earlier methods but remains prone to human error. The ground-breaking PROMIS study (Lancet 2017; 389: 815–22) indicated that radiologists can miss 12% of significant cancers on MRI, and lead to 55% of individuals without significant cancer receiving a painful and costly biopsy. The study presented at ECR 2021 suggests that Lucida Medical's AI technology could help cut missed cancers to 7% and unnecessary biopsies to 24%, as well as making the process faster.

Co-founder and Chief Medical Officer Prof Evis Sala, Professor of Oncological Imaging at the University of Cambridge, said:

"We are tremendously excited about this system and its potential to enhance our ability to detect cancer accurately and early. Now PI™ has CE marking, we can look forward to working with hospitals and radiology and urology partners to bring it into clinical use. Covid-19 has created a serious backlog in cancer screening and Lucida Medical is well placed to help us clear this and further improve the care that we offer over the coming years."

Dr Antony Rix, CEO and Co-founder, said:

“Today, about half of cancers are found when they have already spread and this makes them difficult and costly to treat. Our unique approach could allow patients to get exactly the tests, diagnosis and treatment that they need. With around 20 million new cases of cancer diagnosed each year worldwide, there is enormous potential for us to improve patients’ outcomes and reduce costs for health systems like the NHS.”

Professor Anwar Padhani, Professor of Cancer Imaging at the Institute of Cancer Research in London said:

“AI is going to be essential to successfully deploy community-wide MRI-driven prostate cancer diagnosis. AI system will enable the main benefits of biopsy avoidance are delivered while decreasing the variations in biopsy yields. Initial uses will be to support radiologists’ workflow including gland and target outlining tasks for fusion biopsies. Developing AI systems as clinical decision-making tools requires further efforts. The CE mark enables us to take the next steps”

Professor Padhani is an internationally recognized Oncological MRI radiologist and the clinical lead in MRI at the Paul Strickland Scanner Centre.

Professor Hashim Ahmed, Professor of Urology at Imperial College, University of London said: “There is tremendous need for an AI decision support system that significantly increases productivity and the quality of MR prostate cancer reporting and the Lucida Medical system shows great promise”

Professor Ahmed was one of the very early users of MRI and transperineal biopsy to diagnose prostate cancer. Further he is a pioneer of focal therapy treatment for prostate cancer. His current trials are focused on the Prostagram, the objective being to have a short MRI scan to screen for prostate cancer in the same way as mammograms are used to screen for breast cancer in women.

The software is not for sale in the US.

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For further information on Pi visit the Lucida Medical website or contact Marcus Clark:

Website: www.lucidamedical.com

marcus.clark@lucidamedical.com

About Lucida Medical

Lucida Medical develops AI systems to assist clinicians to detect and diagnose cancer using MRI. Its technology helps radiologists find cancer more accurately leading to earlier diagnosis and removing unnecessary biopsies. Lucida Medical was founded by Dr Antony Rix, an expert in medical devices, machine learning and AI, and Prof Evis Sala, Professor of Oncological Imaging at the University of Cambridge & Addenbrooke’s Hospital. Its highly accomplished development team is led by CTO, Mark Hinton

About Prostate Cancer Research

Prostate Cancer Research are a research charity focused on delivering breakthrough medicines and treatments for prostate cancer, particularly the advanced stages of the disease. They fund research in institutions across the UK, using their deep understanding of patient priorities and the research ecosystem to enable and implement the innovations that really matter, and to help scientists forge the connections and collaborations which will keep their work at the cutting-edge. They encourage innovation and collaboration to speed up the innovations which are needed to create a world where people are free from the impact of prostate cancer.

For more information, please visit: www.pcr.org.uk

Pictures

Images of Prof Evis Sala, Dr Antony Rix, and Lucida Medical's technology are available on request.