Michelson Diagnostics teams up with AI Specialists Manchester Imaging to develop Machine Learning Algorithms for VivoSight OCT Skin Imaging System

Maidstone, UK

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Michelson Diagnostics Ltd, manufacturer of the world-leading VivoSight™ OCT skin imaging and measurement system, has teamed up with AI specialists Manchester Imaging Ltd, to aid dermatologists in the fight against skin cancer and other skin diseases.

Michelson's VivoSight™ Dx OCT scanner is used by trained dermatologists in their assessment of suspicious skin lesions, and is already in widespread routine use in Germany for Basal Cell Carcinoma, the most common type of skin cancer. The VivoSight Dx is the world's leading Optical Coherence Tomography (OCT) skin imaging system which can see over 1 mm deep into the skin to produce images of skin structural elements, vascularity and pathology.

Collaboration on Artificial Intelligence (AI)

The collaboration between Michelson Diagnostics and Manchester Imaging will focus on creating powerful new algorithms based on machine learning and computer vision (also known as 'Artificial Intelligence' or AI) that will automate the analysis of images captured by the VivoSight OCT scanner, to enable dermatologists to make the right diagnostic and treatment decisions more rapidly and more accurately.

Jon Holmes (left), CEO of Michelson Diagnostics, and Tony Travers, CEO of Manchester Imaging

Manchester Imaging Limited is an AI software spinout from the University of Manchester that has already developed and commercialized successful AI algorithms for analysing dental X-rays enabling improved detection of very early tooth decay by dentists.

"*I am very pleased to access Manchester Imaging's leading-edge expertise in AI to help dermatologists in their fight against skin cancer and other pathologies with our VivoSight OCT scanner*" said Jon Holmes, CEO & President of Michelson Diagnostics. "*We want to bring the power of AI into the dermatology clinic to benefit patients*".

Currently, dermatologists assess VivoSight™ OCT images by looking for specific 'markers' that are signs of disease. The time taken and accuracy depends upon the experience and training in OCT image interpretation. Machine Learning algorithms will help by automatically detecting and grading these 'markers' to aid the dermatologist in their treatment decisions and speed up the process.

The first results from the project are expected during 2021.

"We are very excited to work with Michelson Diagnostics" said Tony Travers, CEO of Manchester Imaging. *"This collaboration is highly synergistic and feeds on the deep knowledge of both companies. Our mutual goal is to provide an easy-to-use product that is unsurpassed in its performance, versatility and purpose for the dermatologist".*

About Michelson Diagnostics' VivoSight OCT scanner
Michelson Diagnostics' innovative VivoSight Dx OCT scanner has CE mark, FDA 510(k) and TGA clearance for use in the EU, USA and Australia by trained clinicians for scanning skin lesions as an aid to assessing the patient's condition. Using novel patented laser optics in an easy to use hand-held probe, it provides real-time, high-resolution subsurface images of skin tissue that reveal valuable information useful to the practising dermatologist and skin research scientist.

About Michelson Diagnostics (www.vivosight.com)
Michelson Diagnostics is headquartered in Maidstone, UK, and has sales and support subsidiaries in Germany and in California, USA. Founded in 2006 by Jon Holmes and colleagues, Michelson Diagnostics designs, manufactures and supports highly innovative imaging instruments using multi-beam optical coherence tomography technology. Michelson Diagnostics is the world's leading supplier of Optical Coherence Technology (OCT) devices for dermatology, and operates globally with agents in other countries including China and Australia.

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About Manchester Imaging Limited: (www.manchester-imaging.com)
Manchester Imaging is a spin-out from The Manchester of University UK, established in 2014 to focus on the development of AI software solutions to identify abnormalities in dental imaging. Manchester Imaging has a proven track-record in the design, development and deployment of AI systems for image analysis. Incorporating algorithms drawn from the fields of computer vision, machine learning and neural networks. The Manchester Imaging team have an expertise in producing integrated AI and user-interface solutions that aid clinicians. The team's most recent AI pipelines have focussed on improving the ability of dentists in the challenging task of analysing dental images. Manchester Imaging products are CE marked as medical devices and the company conforms to ISO 13485 quality management standard.

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