

# **MEDIA RELEASE**

# Kynetyka's DVTect<sup>™</sup> technology granted Australian patent.

**25 November 2020; Melbourne Australia:** Kynetyka Technologies Pty Ltd ("Kynetyka"), a privately held Melbourne-based medical device company is pleased to announce that the Australian patent for its DVTect<sup>™</sup> technology has been granted.

The patent "*A screening test for detection of deep vein thrombosis*" was granted on 5 November 2020, in the name of Kynetyka Technologies Pty Ltd and Lawrie Knuckey. (Mr Knuckey is listed as one of the inventors along with Dr Laurence Simpson and Mr Paul Junor). The patent term is 20 years from 15 October 2015.

Kynetyka's Director Xenia Sango said "We are delighted to achieve this important milestone for the DVTect<sup>™</sup> technology. Together with our recent news regarding the support by the MDPP program, Kynetyka is making strong progress towards our objective of developing a unique medical device that will enable the rapid and early screening of DVTs, potentially helping to save lives lost to pulmonary embolism."

The proprietary DVTect<sup>™</sup> technology is designed to detect abnormalities of the calf muscle as a predictor of DVT. The technology underpinning DVTect<sup>™</sup> is based on an analysis of oscillometric waveforms generated in the calf muscle. DVTect<sup>™</sup> comprises an accelerometer attached to the calf, with the waveforms sent to a linked device for analysis by proprietary software.

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### Kynetyka Technologies Pty Ltd

Kynetyka Technologies Pty Ltd (Kynetyka) is an Australian medical device company, incorporated in September 2017 and headquartered in Melbourne. The company is focused on developing their proprietary and unique DVTect<sup>™</sup> technology through to commercialisation. The DVTect<sup>™</sup> technology enables screening for deep vein thrombosis in at-risk patients.

Kynetyka's executive team has collectively over 80 years' experience in the medical/pharmaceutical and technology development sectors both domestically and internationally; their detailed product development knowledge is enabling expeditious development of the device to market. Their experience in engineering, and quality and regulatory compliance ensures the device will be studied appropriately in the clinic and developed to meet national and international regulatory standards. Previous organisations that they have worked with include CSL Limited and CSL Behring (Australia, Switzerland, USA), CSIRO, Serono (UK), Invion Limited, Epworth HealthCare and La Trobe University.

# Deep Vein Thrombosis (DVT)

DVT is a significant complication in all surgical and medical wards, as well as in other aspects of community life. It can lead to pulmonary embolism (clots in the lungs) and possible death. There are also dangers of continuing morbidity in the legs and the lungs from the presence of venous thromboembolism. At the present time, there is no recognised clinical assessment that has an accuracy greater than 60%; many patients with DVT have no overt clinical findings. Where there are suspicious findings, the specific investigations for confirmation usually involve Doppler ultrasound, which is expensive and requires significant capital equipment and expertise.

# DVTect<sup>™</sup> technology

When a patient has a DVT in the calf, there is a demonstrable change in the calf muscles in response to a percussive stimulus applied to the tissues; the normal mobility of the calf is reduced.

Kynetyka has developed the DVTect<sup>™</sup> device to provide a non-invasive, cost-effective, portable, point-of-care assessment. DVTect<sup>™</sup> works by placing a sensor on the calf and applying a percussive stimulus to the muscle. The resulting muscle oscillation is then recorded and transmitted to the DVTect<sup>™</sup> device where the waveform of the oscillation is analysed by the DVTect<sup>™</sup> software to indicate the presence a DVT.

DVTect<sup>™</sup> is a unique medical device for bedside screening, easy for clinicians with minimal inconvenience to the patient. DVTect<sup>™</sup> offers the potential to detect DVT, prevent pulmonary embolisms and the associated risk of death, and save on unnecessary ultrasounds. Only ~25% of patients referred for radiology ultrasound are found to have a DVT. In Australia ultrasounds performed for suspected DVT rose from 427,000 in 2013/14 to 500,000 in 2017/18<sup>1</sup>,

As a screening device, the initial target market is hospitals – post-surgery recovery wards, Intensive Care Units and Emergency Departments. It could also be used in primary care on symptomatic patients or those with thromboembolism risk factors.

<sup>&</sup>lt;sup>1</sup> MBS Taskforce: Fourth report from the Diagnostic Imaging Clinical Committee – Pulmonary Embolism and Deep Vein Thrombosis 2017 and Requested Medicare items (55244, 55221, 55246, 55222) processed from July 2016 to June 2018