

# ASX Release

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## EMVISION PRESENTS AT ASX SMALL AND MID-CAP CONFERENCE

**EMVision Medical Devices Limited (ASX:EMV) ("EMVision" or the "Company"),** a medical device company focused on the development and commercialisation of portable medical imaging technology, is pleased to provide a presentation to be given today by EMVision's Managing Director and CEO, Dr Ron Weinberger to the ASX Small and Mid-cap Conference 2021.

#### Latest design and new developments of our planned device for commercialisation

Contained within the presentation is the latest design for EMVision's 1<sup>st</sup> generation portable brain scanner intended for commercialisation, which, looking towards future road/air ambulance models, now incorporates a miniaturised Vector Network Analyser (VNA) within the headset.

#### Anatomical reconstructions of the brain using Electromagnetic (EM) Imaging

In addition, a promising new imaging technique is unveiled which enables anatomically correct structure and context, alongside functional imaging capabilities.

Authorised for release by the Board of the Company.

#### [ENDS]

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#### **About EMVision Medical Devices**

EMVision Medical Devices Limited is focused on the development and commercialisation of medical imaging technology. The Company is developing and seeking to commercialise a potentially cost effective, portable, medical imaging device using electromagnetic microwave imaging for diagnosis and monitoring of stroke and other medical applications. The technology is the result of over 10 years of development by researchers at the University of Queensland. The team of approximately 20 researchers is led by co-inventor Professor Amin Abbosh, who is considered a global leader in electromagnetic microwave imaging. EMVision's Chief Scientific Officer is Professor Stuart Crozier, who is a co-inventor and globally renowned for creating technology central to most MRI machines manufactured since 1997. EMVision's CEO, Dr Ron Weinberger, is the Former Executive Director and CEO of Nanosonics' (ASX:NAN), a \$1.9 billion market cap healthcare company. Dr Weinberger has over 25-years' experience developing and commercialising medical devices. During his time at Nanosonics, Dr Weinberger co-developed the company's platform technology and launched their breakthrough product 'Trophon' globally, which would go on to become the gold standard for infection prevention. Dr Weinberger was instrumental in transforming Nanosonics from a research and development company to one of Australia's leading medical device commercialisation success stories.

#### **Forward-looking Statements**

This release may contain certain forward-looking statements with respect to matters including but not limited to the financial condition, results of operations and business of EMVision and certain of the plans and objectives of EMVision with respect to these items. These forward-looking statements are not historical facts but rather are based on EMVision's current expectations, estimates and projections about the industry in which EMvision operates, and its beliefs and assumptions. Words such as "anticipates," "expects," "intends," "plans," "believes," "seeks," "estimates", "guidance" and similar expressions are intended to identify forward looking statements and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those risks or uncertainties inherent in the process of developing technology and in the endeavour of building a business around such products and services. These statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties and other factors, some of which are beyond the control of EMVision, are difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward looking statements. EMVision cautions shareholders and prospective shareholders not to place undue reliance on these forward-looking statements, which reflect the view of EMVision only as of the date of this release. The forward-looking statements made in this announcement relate only to events as of the date on which the statements are made. EMVision will not undertake any obligation to release publicly any revisions or updates to these forward-looking statements to reflect events, circumstances or unanticipated events occurring after the date of this announcement except as required by law or by any appropriate regulatory authority.

#### Inherent risks of Investment in Medical Device development Companies

There are a number of inherent risks associated with the development of new medical device products to a marketable stage. The clinical trial process, which is often lengthy, is designed to assess the safety and efficacy of a device prior to commercialisation and there is no guarantee of achieving the outcomes necessary to generate a viable commercial product. Other risks include uncertainty of patent protection and proprietary rights, the obtaining of necessary regulatory authority approvals and the evolving competitive landscape. Companies such as EMVision are dependent on the success of their research and development projects, product development and on the ability to attract funding to support these activities. Investment in research and development and novel product development cannot be assessed on the same fundamentals as trading and manufacturing enterprises. Therefore investment in Companies specialising in such development must be regarded as speculative. EMVision recommends that professional investment advice be sought prior to such investments and cautions investors that the risks of an investment in an entity such as EMVision is not limited to the risks disclosed in this announcement.

www.emvision.com.au

# **EVISION** ASX SMALL AND MID-CAP PRESENTATION

March 2021

SHARES **CASH BALANCE** SHARE MARKET ASX ASA STAGED **52 WEEK ENTERPRISE** ON ISSUE CAPITALISATION CODE (31 DEC 2020) GRANT HIGH PRICE VALUE \$175M\* \$188M\* \$2.66\* \$4.20 ASX:EMV \$13M \$8M 70.7M

\* Undiluted market cap based on closing price of \$2.66 Friday 12th March 2021

## DISCLAIMER

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## TRANSFORMATIVE POINT-OF-CARE IMAGING



## BRINGING IMAGING TO WHERE STROKE OCCURS WILL SAVE LIVES



STROKE IS A GLOBAL SOCIETAL & HEALTH ECONOMIC BURDEN



THERE ARE EFFECTIVE TREATMENTS AVAILABLE



THEY ARE TIME SENSITIVE

## 1<sup>ST</sup> GENERATION DEVICE

Detect clinically significant changes, at the bedside, when time matters, before clinical symptoms present.

## WHAT CLINICIANS NEED TO KNOW...



ACUTE ISCHAEMIC STROKE PATIENTS CAN BENEFIT FROM CLOT DISSOLVING DRUGS (tPA) IF GIVEN WITHIN HOURS, BUT THESE DRUGS WORSEN BLEEDING IF THE STROKE IS DUE TO A HAEMORRHAGE. THE ABILITY TO DISTINGUISH STROKE TYPE, SIZE AND LOCATION AT THE POINT OF CARE ARE SOME OF THE POTENTIAL UTILITIES OF THE EMVISION DEVICE.

## **2<sup>nd</sup> GENERATION DEVICE**

Ultra light weight device embedded in standard road and air ambulances to deliver pre-hospital stroke care to patients regardless of location.

This is an artistic concept of a proposed first responder device which is subject to prototype development and clinical testing. In-ward device under development and its potential clinical utility is also subject to successful clinical testing and validation.

# Australian AUSTRALIAN STROKE ALLIANCE COLLABORATION EMV TO RECEIVE \$8M NON-DILUTIVE STAGED FUNDING\*

**PRODUCT STREAM 1 PRODUCT STREAM 2** FUNDING AND CLINICAL EXPERTISE FOR 1<sup>st</sup> FUNDING AND CLINICAL EXPERTISE TO GENERATION DEVICE PIVOTAL TRIALS & ADAPT AND VALIDATE EMVISION CLINICAL VALIDATION **TECHNOLOGY FOR ROAD & AIR AMBULANCES** 1 VISTO

\*Subject to conditions as per the Company's ASX announcement titled "Successful MRFF Bid" released on 2<sup>nd</sup> March 2021 for further details, which includes a summary of the conditions of the staged funding. This is an artistic concept of a proposed first responder device which is subject to prototype development and clinical testing

# PILOT CLINICAL STUDY OVERVIEW

#### STUDY DESIGN

#### PATIENT COHORT

#### STUDY OBJECTIVE

#### PILOT CLINICAL TRIAL

- The single-site study, at the Princess Alexandra Hospital (PAH) in Brisbane, of patients with diagnosed ischaemic or haemorrhagic stroke, is the first clinical study for EMVision's novel imaging technology.
- Patients were scanned with EMVision's device at close proximity to their standard of care imaging (CT and MRI)
- No intervention or modification to the standard of care of hospital-based treatment of stroke was done as part of this study.

#### **30 STROKE PATIENTS ENROLLED**

- The study enrolled and processed datasets from 30 patients (21 ischaemic and 9 haemorrhagic) representing the diversity of stroke in localisation, size and clinical severity.
- The mean age was 66.7
- Of the 30 patients, 19, (63.3%) had only a CT performed whereas 11, (36.7%) had CT/MRI performed.
- The mean NIHSS score was calculated as 5.2 which indicates mild severity.

#### PRIMARY END POINT ACHIEVED

- The primary endpoint was the collection of a dataset of stroke patients which improves the understanding of stroke on electromagnetic scattering effects in the brain. This end point has been met, producing datasets that have enabled EMVision to advance its imaging algorithm and hardware development.
- The dataset enabled an observation of the correlation of EMVision scans with patients' "ground truth" CT and/or MRI scans.

## FUSION WITH CLASSIFIER - EXAMPLES





The above examples have been selected to demonstrate how the fusion methodology can be used to detect, localise, and classify stroke type and should be interpreted in light of the intent and results of this study to date.

# FIRST ANATOMICAL DIELECTRIC ESTIMATION IMAGES USING NEURAL NETWORKS

## A UNIQUE TECHNIQUE IS UNDER DEVELOPMENT TO AUGMENT EMVISION'S EXISTING IMAGING CAPABILTIES WITH ANATOMICALLY CORRECT INTERNAL TISSUE DISTRIBUTIONS AND THEIR DIELECTRIC PROPERTIES

## STRONG POTENTIAL TO PROVIDE ADDITIONAL STRUCTURAL CLINICAL INFORMATION, CONTINUING TO BE EVALUATED AND VERIFIED AGAINST CLINICAL DATA



Ground Truth MRI Slice

Patient Example from study



DIELECTRIC MAP

# STUDY OUTCOMES & UPCOMING MILESTONES



A larger dataset will be required to draw conclusions on sensitivity/specificity for blood and ischemia. The algorithms may be subject to further refinement and investors should note there is no guarantee the algorithms will replicate the same level of accuracy on larger data sets without further refinement, or at all. Five datasets where pathologies were estimated to fall outside of the anticipated prototype hardware range were identified and accuracy figures presented here are with, and without, the 5 excluded datasets for completeness. V&V: Verification and Validation, EMC: Electromagnetic Compatibility Testing, ASA: Australian Stroke Alliance. The indicative timetable is a guide of EMVision's intentions at the date of this presentation only. EMVision reserves the right to vary this timetable at its discretion, and further notes the above timings are subject to change due to circumstances outside of its control.

# MORE LIVES COULD BE SAVED WITH A LIGHTWEIGHT SCALABLE IMAGING SOLUTION



Sources: Zhao....Donnan, Davis. Stroke 2020. Presto & Lesmeister / Fassbender 2018.

This is an artistic concept of a proposed first responder device which is subject to prototype development and clinical testing

# FLEXIBLE & ATTRACTIVE REVENUE MODELS

## DIRECT OR DISTRIBUTOR



EMV cautions investors that there are regulatory barriers and unique access challenges to each market and can be subject to varying rates of penetration.

## TEAM

Significant experience developing and commercialising medical devices



Dr Ron Weinberger CEO & MD Former Nanosonics MD (ASX:NAN)



Geoff Pocock Non-Executive Director Former Hazer MD (ASX:HZR)



John Keep Non-Executive Chairman Former CEO Queensland Diagnostic Imaging



Tony Keane Non-Executive Director National Storage NED (ASX:NSR)



Scott Kirkland Executive Director Co-Founder EMVision



Dr Philip Dubois Non-Executive Director Neuroradiologist, Former CEO, imaging division, Sonic Healthcare Ltd (ASX:SHL)



Prof Stuart Crozier Chief Scientific Officer 2/3<sup>rd</sup> MRIs use Prof Crozier developed IP



Emma WaldonCompany SecretaryHCapital markets and corporategovernance expert



**Robert Tiller** Head of Design Founder Tiller Design



**Dr. Konstanty Bialkowski** Head of Tech Development EM Imaging expert and Co-Inventor



Forough Khandan Head of Program Management Former Nanosonics Program Manager



Ruth Cremin Head of Quality & Regulatory Affairs Former Head of Regulatory at Nanosonics

## **PARTNERS & COLLABORATORS**







Princess Alexandra Hospital BRISBANE • AUSTRALIA





Product Collaboration C

Clinical Development & Validation

Commonwealth CRC-P Grant Program Collaborators

## **CAPITAL STRUCTURE**



1 – See ASX release titled "Appendix 2A' from 17<sup>th</sup> Dec 2020 for further information on Options 2 – All performance rights are held by UniQuest and will vest on particular milestones over time – further details in IPO prospectus | 3 – The Australian Stroke Alliance has advised EMVision that it will receive \$8m in non-dilutive cash funding towards product development and clinical validation, see ASX release titled 'Successful MRFF Bid' for further information and conditions of staged funding | Closing price 12th March 2021

## **EMVISION HISTORY**

