

www.emvision.com.au

EMVISION

INVESTOR PRESENTATION

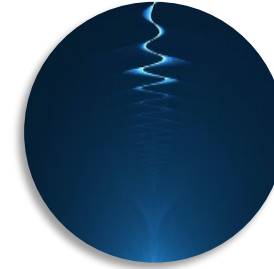
June 2020





TRANSFORMATIVE POINT-OF-CARE IMAGING

- ➔ Rapidly Diagnose & Monitor Stroke
- ➔ Portable
- ➔ Safe & Non-Ionizing
- ➔ 30 Second scan time
- ➔ Cost Effective



BREAKTHROUGH TECHNOLOGY

Commercialising novel electromagnetic imaging technology as a result of 10 years development at University of Queensland



SOLVING UNMET CLINICAL NEEDS

Immense commercial opportunity in solving clinical problems for which there are currently no solutions



PROMISING APPLICATIONS

Technology has potential for diagnostic applications across the whole body, with time sensitive neurological disorders being the first target

WHAT PROBLEMS ARE WE SOLVING?

HEALTH & ECONOMIC BURDEN



Stroke is a leading cause of death and disability worldwide with 1 in 6 people having a stroke in their lifetime ¹

Annual Stroke Related Medical Costs in the US ²

\$71 bn
2012

\$184 bn
2030

EFFECTIVE TREATMENTS UNDER DEPLOYED

Recent years have seen ground-breaking stroke therapies implemented – including innovative blood clot retrieval, intravenous thrombolysis to dissolve clots and drugs designed to halt bleeding into the brain.

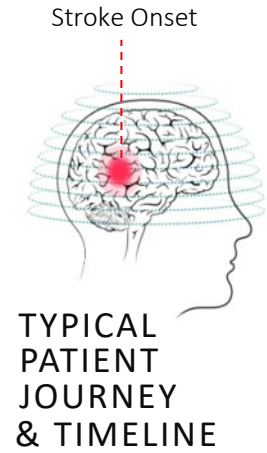
Unfortunately, innovation in portable imaging has not kept pace with the innovation in stroke treatment, meaning many patients are not diagnosed in time and so may not receive the most effective treatment.

LACK OF PORTABLE IMAGING

Imaging is a prerequisite to determine the type of stroke, the appropriate treatment protocol and to evaluate the patient's response to reperfusion therapies and interventions.

Today there are no practical, truly portable and easy to use, bedside or pre-hospital imaging solutions available, to allow clinicians and paramedics to intervene earlier, and make critical decisions earlier, when time matters.

THE STROKE CARE OPPORTUNITY



15 mins to 2.5 hours



Pre-hospital Triage

Paramedics transport stroke victim to hospital

< 2.5 hours



Hospital ED

Patient arrives at hospital or comprehensive stroke center

< 3 hours

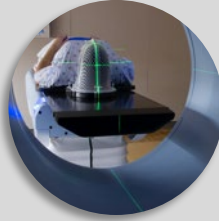


Image Studies

CT and/or MRI scans to determine type of stroke

< 24 hours



Treatment Plan

Patient undergoes treatment plan for ischaemic or haemorrhagic stroke

<24 hours - 3 weeks



In-Ward Stroke Care

Assist clinicians in making critical decisions, and critical interventions earlier, when time matters

<3 weeks - 3 years+



Rehabilitation

Specialised in-hospital units, nursing facilities and home based programs

OPPORTUNITY TO SOLVE
UNMET
CLINICAL NEEDS

Small sized device to provide rapid stroke decision support in ambulances



Monitor progress of patients' response to therapy or surgical intervention



POTENTIAL
ESSENTIAL
CLINICAL
USE CASES*

To distinguish between haemorrhagic stroke versus ischaemic stroke to assist with decision making regarding thrombolysis in the field

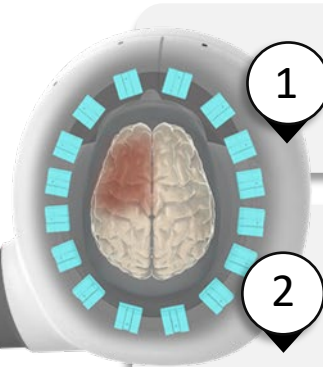
Differentiate infarct core from surrounding salvageable brain tissue to assist decision making on whether a patient needs to be transported directly to a clot retrieval center versus their local stroke unit

Post subarachnoid haemorrhage: monitoring for vasospasm induced ischaemic stroke

An alternative to day 1 post lysis CT brain scan to assess for haemorrhagic transformation of ischaemic stroke

Monitoring for post stroke oedema to allow earlier clinical detection of worsening oedema

TECHNOLOGY OVERVIEW



1 Array of antennas send pulses of low-power electromagnetic waves into the head



2 Waves penetrate tissue in a non-ionizing and harmless manner and get scattered based on the electrical properties of tissue



3 Sensors in the helmet detect these interactions to identify and locate abnormal tissue



4 Multiple novel algorithms reconstruct the image



5 AI driven stroke classification to assist in decision making

SHARED UNDERLYING PRINCIPLES



NON-DESTRUCTIVE TESTING

Microwave frequency
2 – 18 GHz



SECURITY

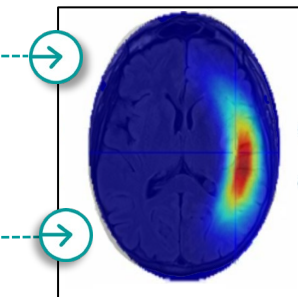
Millimeter frequency
10 - 80 GHz



ELECTROMAGNETIC IMAGING

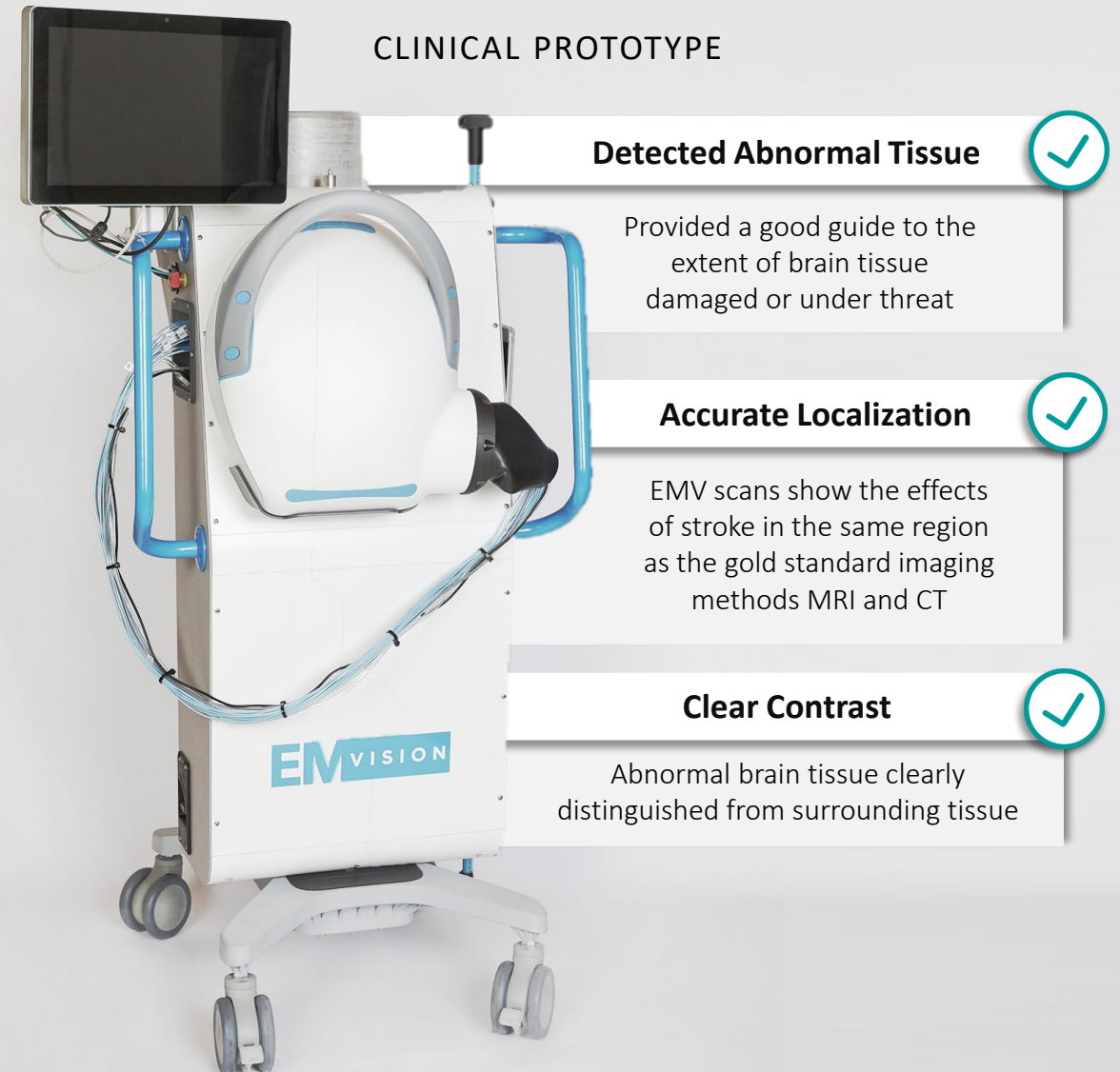
Microwave frequency
500 MHz – 5 GHz+

PROPRIETARY ALGORITHMS & AI USED FOR IMAGING



PROMISING PRELIMINARY IMAGES

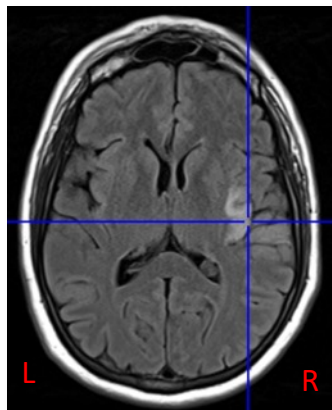
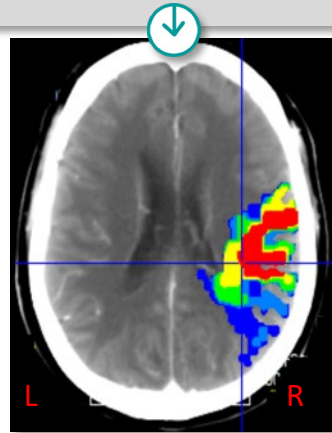
- ➔ Commenced 30 patient pilot-clinical trial at the Princess Alexandra Hospital in Brisbane in late January 2020 to:
 - 1 Collect data from stroke patients, both ischaemic and haemorrhagic
 - 2 Compare EMVision scans with ground truth CT and MRI images
 - 3 Refine and select optimal imaging algorithms including fusion combination
- ➔ This approximately 6-month trial informs commercial product development as well as regulatory strategy and pivotal trial design
- ⬇ The following preliminary images represent the first set of two ischaemic datasets processed and have been reviewed extensively by EMVision's clinical advisors. These results reflect an initial two datasets of the patients enrolled to date and the final results of the clinical study, when completed, will undergo a detailed review by the Company's clinical advisors.



PATIENT A

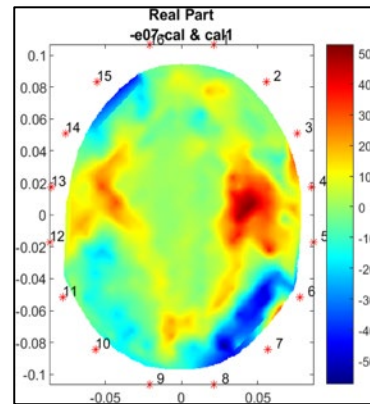
Right M2 Occlusion

GROUND TRUTH

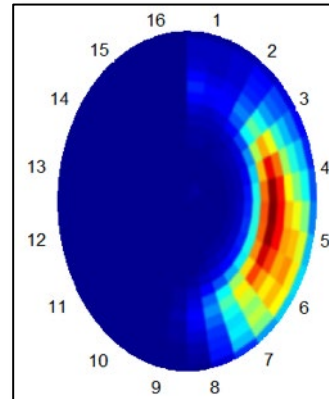


Perfusion CT / MRI

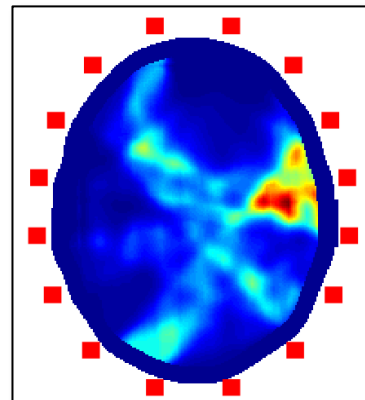
EMVISION SCANS (MULTIPLE ALGORITHMS)



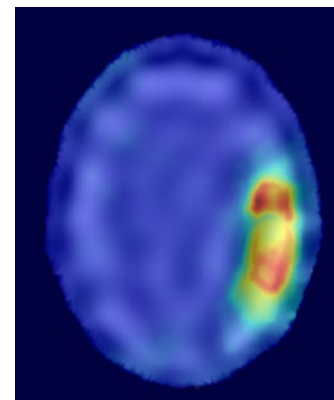
Beamforming



Direct Mapping

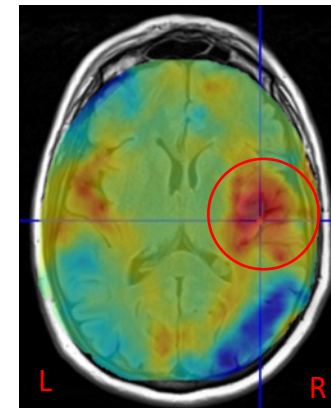


Statistical

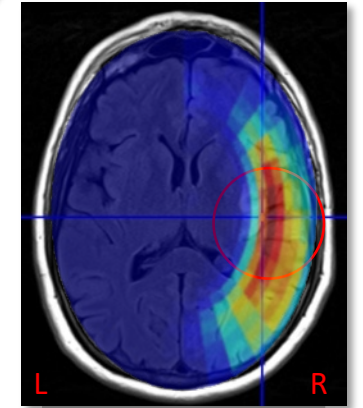


Tomography
with Fusion

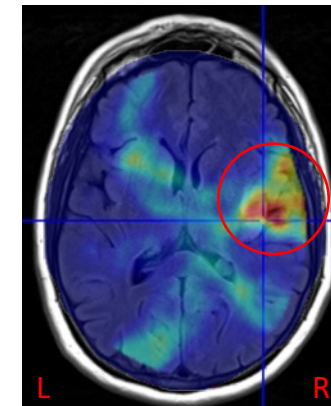
EMVISION SCANS OVERLAID
GROUND TRUTH MRI



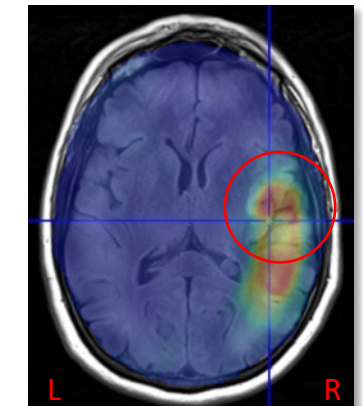
Beamforming



Direct Mapping



Statistical

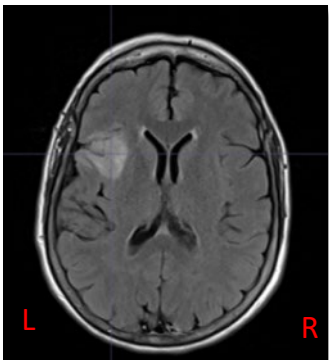
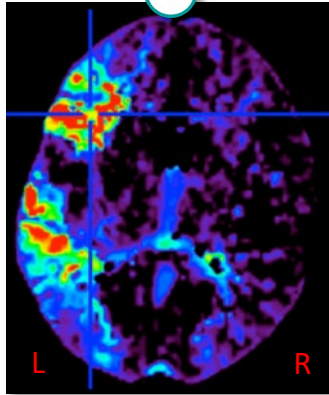


Fusion

PATIENT B

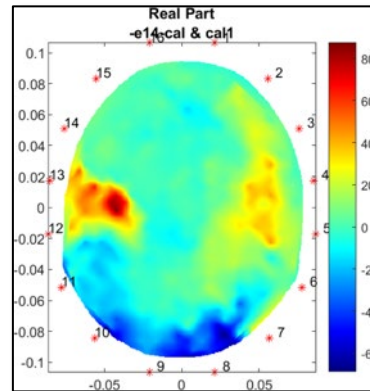
Left frontal small stroke, difficult to see clot and probably small M3 occlusion. Posterior CTP change probably fragmented clot

GROUND TRUTH

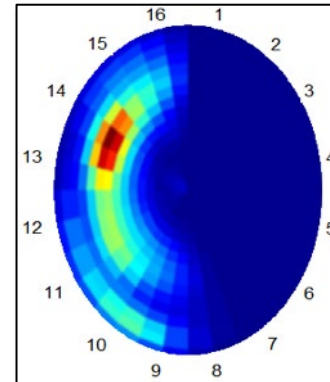


Perfusion CT / MRI

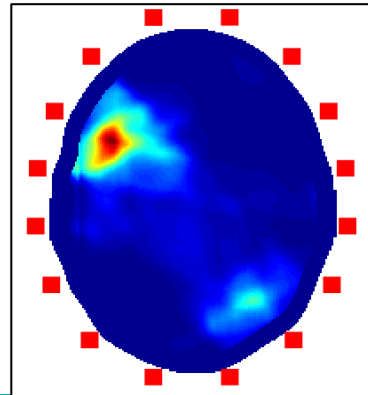
EMVISION SCANS (MULTIPLE ALGORITHMS)



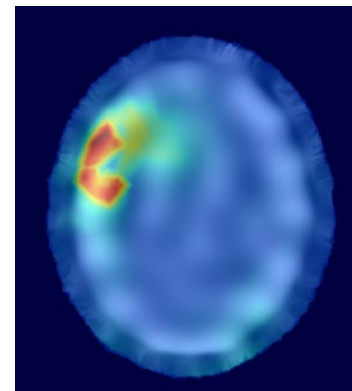
Beamforming



Direct Mapping

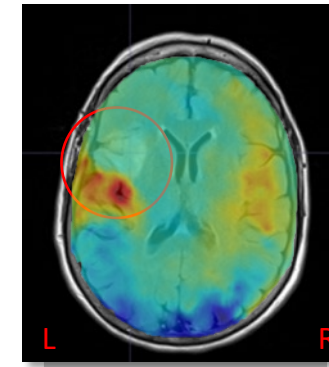


Statistical

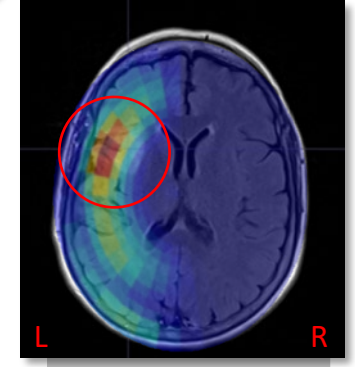


Tomography
with Fusion

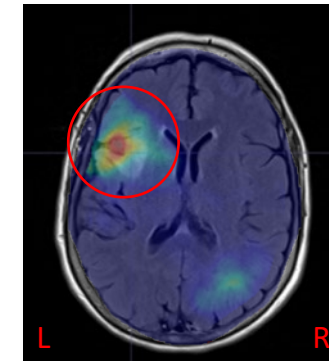
EMVISION SCANS OVERLAID GROUND TRUTH MRI



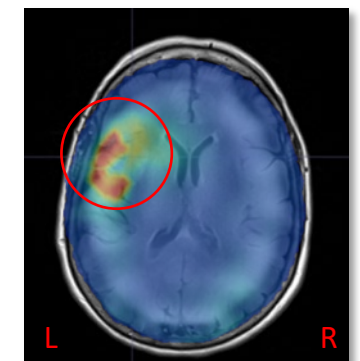
Beamforming



Direct Mapping



Statistical



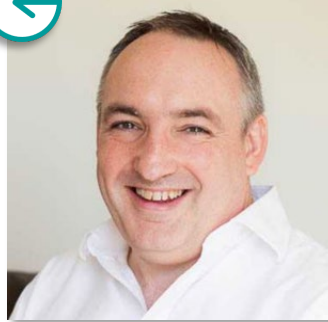
Fusion

CLINICAL FEEDBACK

PROF MICHAEL O'SULLIVAN

Neurologist specializing in Stroke
EMV Clinical Advisor

"Although obviously preliminary, these early results are highly promising. In both cases, the EMVision scans were clearly positive and provided a good guide to the extent of brain tissue damaged or under threat."



A/PROF DAVID COOK

Lead Investigator, Snr Critical Care Specialist
EMV Clinical Advisor

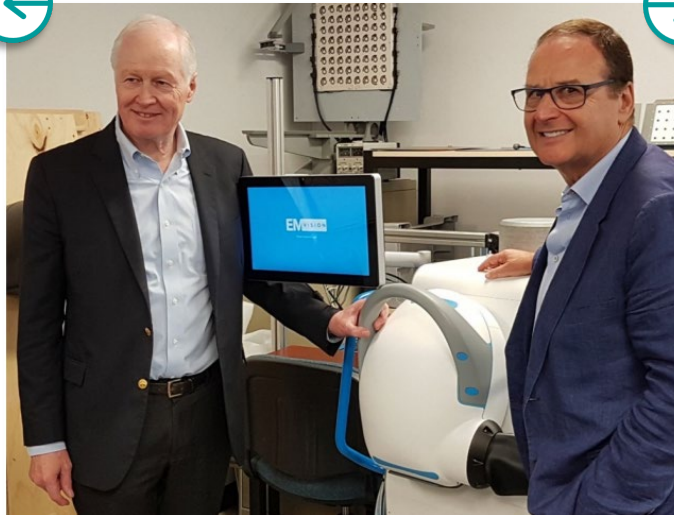
"The last two years has seen EMVision technology advancing us towards the realisation of a novel imaging technology that will assist medical practitioners in making critical decisions, and critical interventions earlier, when time matters."



PROF GEOFF DONNAN

Stroke Neurologist
Past President of the World Stroke Organization
Co-chair of the Australian Stroke Alliance

"The lightweight portability of the device makes it a potential candidate for emergency stroke imaging in the pre-hospital setting."



PROF STEPHEN DAVIS

Stroke Neurologist
Past President of the World Stroke Organization
Co-chair of the Australian Stroke Alliance

"These early images are clinically promising, clearly showing the effects of ischaemic stroke in the same region as the gold standard imaging methods."

PRODUCT DEVELOPMENT ROADMAP

2019



CLINICAL PROTOTYPE

Clinical prototype to gather data from stroke patients to enable refinement and selection of optimal imaging algorithms as well as data on correlation with CT and MRI imaging



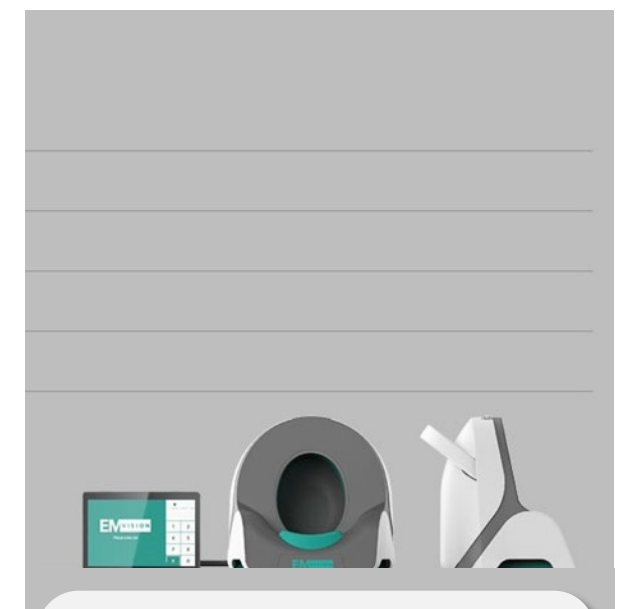
2020-21



1st GEN FOR COMMERCIALISATION

For use in ICUs, stroke and neurology wards. This device intends to offer a bedside decision support and monitoring capability for the response to treatments, complications and progress of strokes

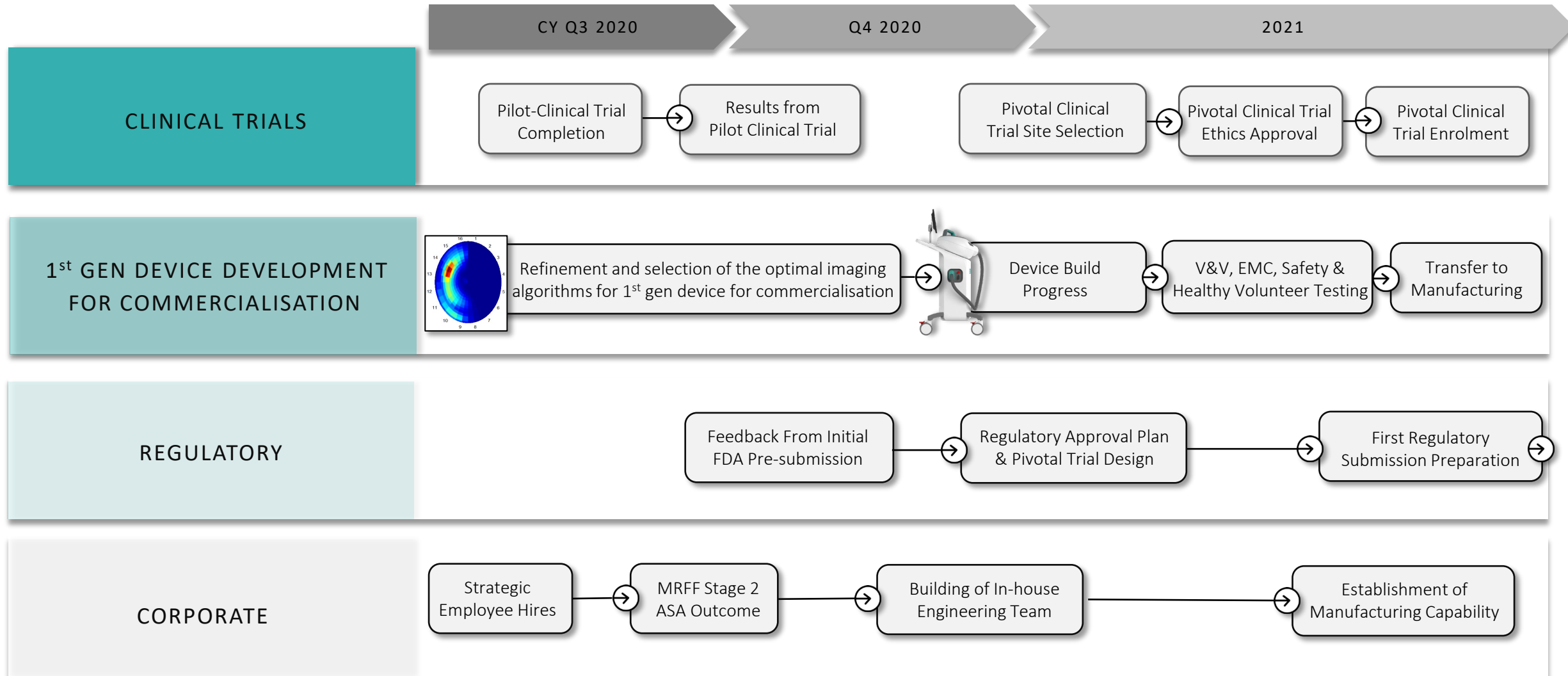
CURRENTLY UNDER DEVELOPMENT



FIRST RESPONDER

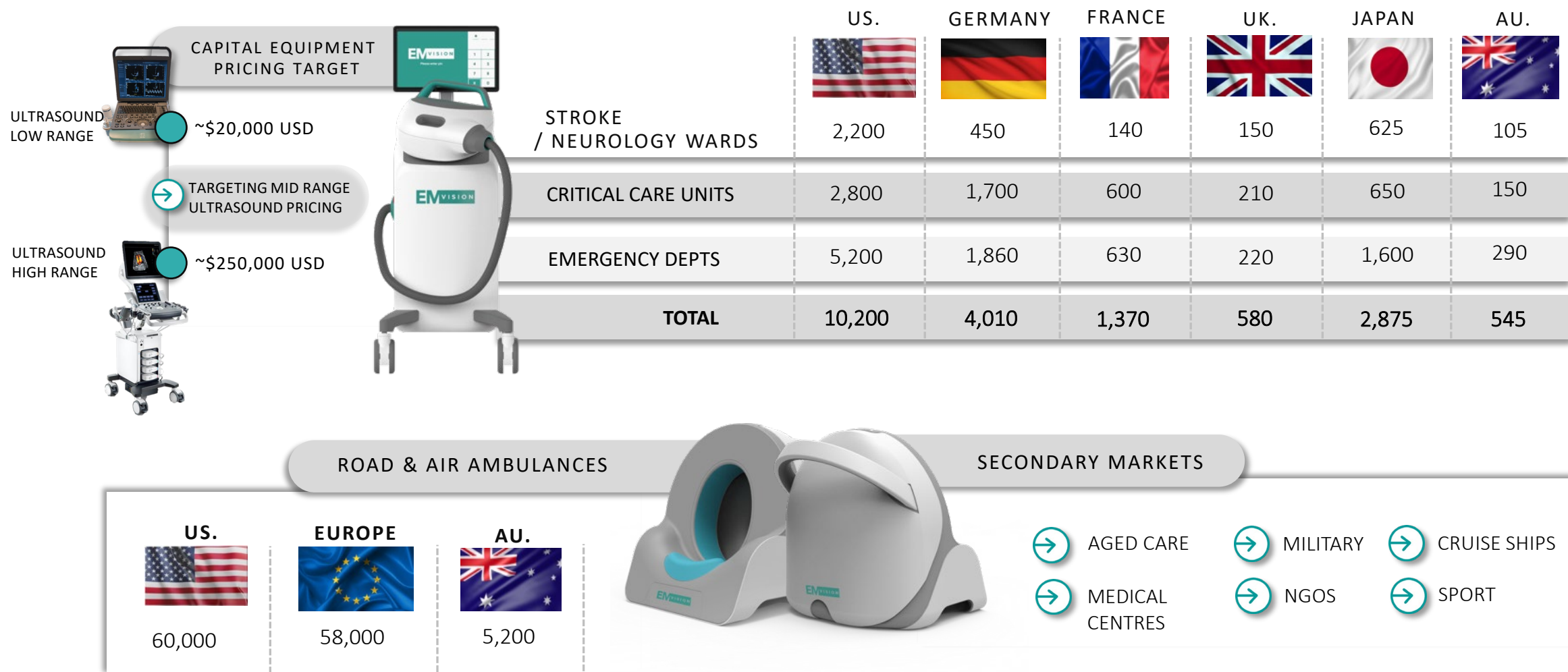
Next generation device that intends to speed up pre-hospital triage and create opportunity for earlier treatment choices pre-hospital

ROAD TO COMMERCIALISATION



V&V: Verification and Validation, EMC: Electromagnetic Compatibility Testing. MRFF: Medical Research Future Fund. 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. It is EMVision's intention to apply for the relevant regulatory clearances as part of its commercialization strategy at the appropriate point in the development cycle of the brain scanner, however EMVision notes there is no guarantee that the requisite clearances will be acquired in a timely matter, or at all.

KEY ADDRESSABLE MARKETS



ATTRACTIVE REVENUE MODEL

SALES MODEL: DISTRIBUTION OR DIRECT

Distribution Partners

EMVision's sales model will be flexible on a geography by geography basis. Future distribution partners would purchase equipment, consumables, accessories and spare parts from EMVision and on-sell to their network

FLEXIBLE PURCHASING MODELS

Capital Sales

Equipment is sold upfront with customer purchasing consumables as required

Managed Equipment Model

Equipment provided to customers with consumables bundled in

Rental

Customer rents equipment from EMVision and purchases consumables as required

MULTIPLE RECURRING REVENUE STREAMS OVER LIFE OF EACH DEVICE



FREQUENCY: **HIGH**

Consumables

Disposable Caps purchased for infection control and signal quality. Depending upon the number of stroke patients being admitted to the hospital and those recovering, one device could generate 5-10+ cap usages per day

\$10



PRICE EACH
CAP \$USD

\$30



FREQUENCY: **VARIABLE**

Accessories

Cables, Head-Neck support and power supply units, purchased with initial device or over time



FREQUENCY: **ROUTINE**

Maintenance & Service

Preventative Maintenance, Service Contracts, Software upgrades over life span of device

PARTNERS & COLLABORATORS



Awarded EMVision a \$2.6M CRC-P non-dilutive cash grant, over three years, in Dec'17.

Secured key academic, clinical and industry partners, who contribute a further \$910,000 non-dilutive cash and ~\$3.5M of in-kind contributions and resources to the brain scanner program.



Developer of EMVision's IP, CRC-P partner, and Australia's most successful commercialisation university with more than US\$15.5 billion in gross product sales from UQ licenced technologies.

Over 20 researchers at UQ across software, mechanical and electrical engineering advancing EMVision's imaging modality.



GE Healthcare is the \$19 billion healthcare business of GE (NYSE:GE) and a leading global manufacturer and distributor of imaging modalities.

GE Healthcare have partnered with EMVision in a CRC-P program providing cash and in-kind expertise commitment towards EMVision's brain scanner program.



EMVision is a key commercial collaborator with the Australian Stroke Alliance (ASA) who are looking to deploy portable imaging technologies for pre-hospital stroke triage and treatment.

Working towards a Medical Research Future Fund (MRFF) Stage 2 competitive grant pledged at \$50 million or more per successful consortium.



Strategic collaboration with Keysight Technologies Inc. (NYSE:KEYS) via MOU to collaborate on the development of personalized Vector Network Analyser (VNA) units for the healthcare market.

VNA's are a key component in EMVision's brain scanner and allow for accurate measurement of the signals transmitted and received.



Highly regarded hospital with world leading neurology, radiology and critical care experts.

EMVision's CRC-P partner and pilot-clinical trial site where data is being collected from patients with diagnosed ischaemic and haemorrhagic stroke, with confirmatory CT and/or MRI images.

TEAM

Significant experience developing and commercialising medical devices



Dr Ron Weinberger
CEO & Managing Director

Former Exec Director / CEO of Nanosonics (ASX: NAN), \$2BN market cap company

20 yrs experience developing and commercialising medical devices



John Keep
Chairman

Former CEO of Queensland Diagnostic Imaging (\$109M Trade sale to Mayne Pharma)

Over 30 yrs senior executive leadership and M&A experience



Scott Kirkland
Executive Director

Co-founder of EMvision Medical Devices Ltd

Experienced corporate affairs, capital markets and technology sales executive



Prof Stuart Crozier
Co-Inventor & Clinical Advisory Chair

Co-inventor of underlying technology

Globally renowned for MRI advancements (70% installed hold Stuart's patents)



Robert Tiller
Product Design & Development Executive

CEO and Founder of Tiller Design (product developer for ResMed and Nanosonics)

25 yrs experience in medical device design, development and commercialisation



Geoff Pocock
Non-Executive Director

Executive Director of Osteopore (ASX:OSX) and Former MD / Co-Founder of Hazer Group (ASX:HZR)

20 yrs experience commercialising emerging technologies and capital markets



Tony Keane
Non-Executive Director

Over 30 years finance experience in business, corporate and institutional banking

Advisory Board and NED roles including ASX 200 company National Storage REIT (ASX:NSR)



Ryan Laws
Non-Executive Director

Co-founder of EMvision Medical Devices Ltd

Experienced corporate advisor & investor



Emma Waldon
Company Secretary

Chartered Accountant

Diverse capital markets & corporate governance experience



Dr. Konstanty Bialkowski
Head of Tech Development

Co-inventor of underlying technology

Expert in near-field biomedical radar, microwave imaging and signal processing techniques.



Ruth Cremin
Head of Quality & Regulatory Affairs

Former Head of Quality and Regulatory at Nanosonics (ASX:NAN) and Snr Regulatory Specialist at Cochlear (ASX:COH)

Multiple successful FDA, TGA and CE mark clearances.

CAPITAL STRUCTURE

Shares on issue	63.7m
Total Options on issue ¹	8.9m
Performance Rights ²	6m
Market Cap @ \$1.26c*	\$80m
EV @ \$1.26c*	\$74m
Current Cash Balance ³	\$6.06m

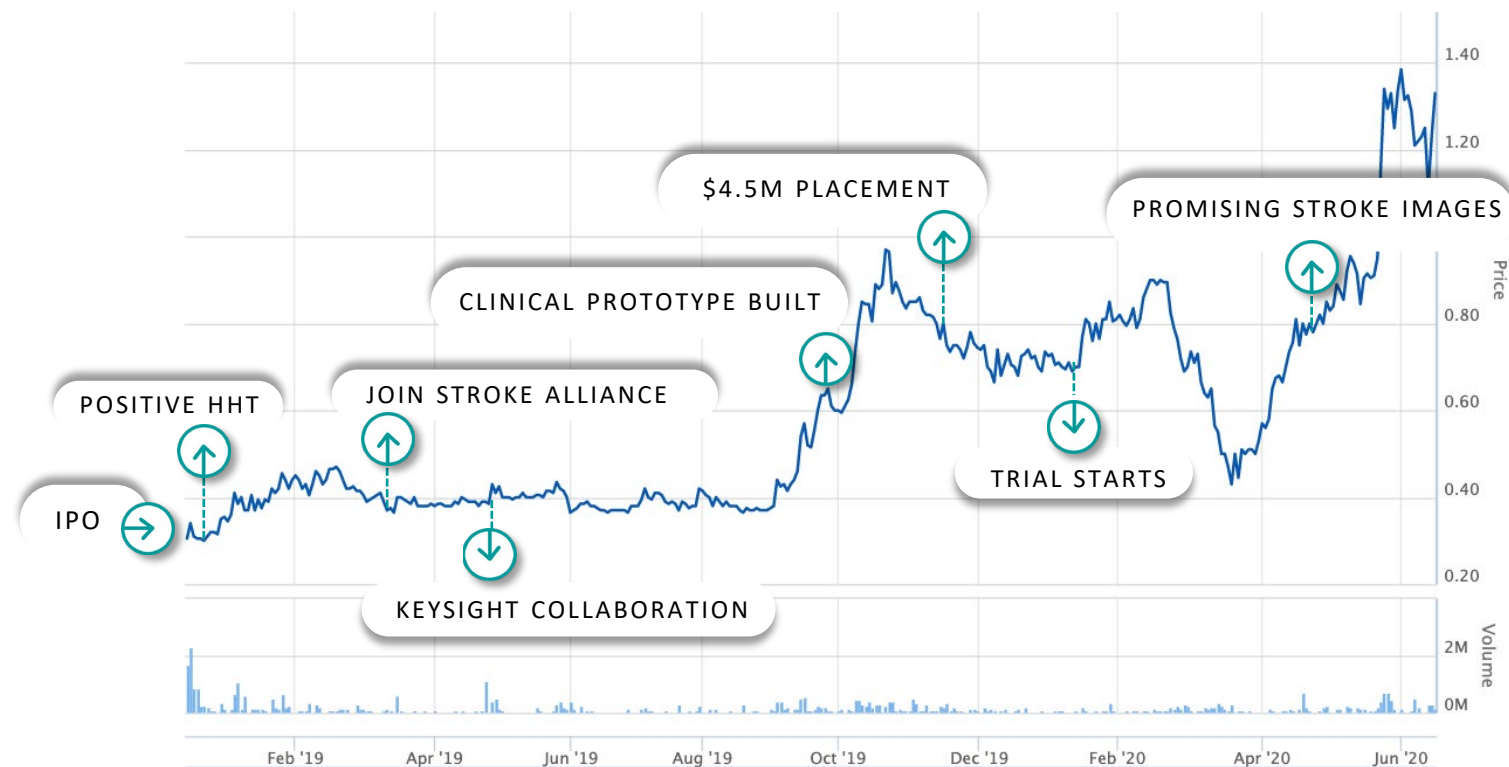
Top Shareholders

MANAGEMENT & DIRECTORS

17.7%

UNIQUEST (UQ)

9.4%



1 – 8.9m Options: 6,000,000 strike price \$0.35 expiring 31st December 2021, 400,000 Options strike price \$0.57 expiring 1st July 2022, 115,000 Options strike price \$1.11 expiring 13th November 2022 and 1,000,00 Options strike price \$1.25 expiring 6th May 2023, vesting over time, granted to Dr Ron Weinberger subject to shareholder approval. Option incentives held by executive management, directors, advisors & key contractors | 2 – All performance rights are held by UniQuest and will vest on particular milestones over time – further details in IPO prospectus | 3 – As of 31 March 2020. The Company anticipates having access to additional sources of undrawn non-dilutive cash funding of approximately \$1,224,854 from its ongoing CRC Project | * Closing price 23rd June 2020

www.emvision.com.au

GET IN TOUCH



Dr Ron Weinberger
CEO and MD, EMVision
E: rweinberger@emvision.com.au
P: 02 8667 5337

Scott Kirkland
Executive Director, EMVision
E: skirkland@emvision.com.au
P: 02 8667 5337