



Realising our vision to

**improve a  
billion lives**

through disruptive medical devices



# Hydrix

A diversified global medtech company

Our vision is to improve a **billion** lives

Our commercial model builds on a rich 20 year new product development history, to also now make Venture investments in medtech clients and bring to market disruptive cardiovascular devices.



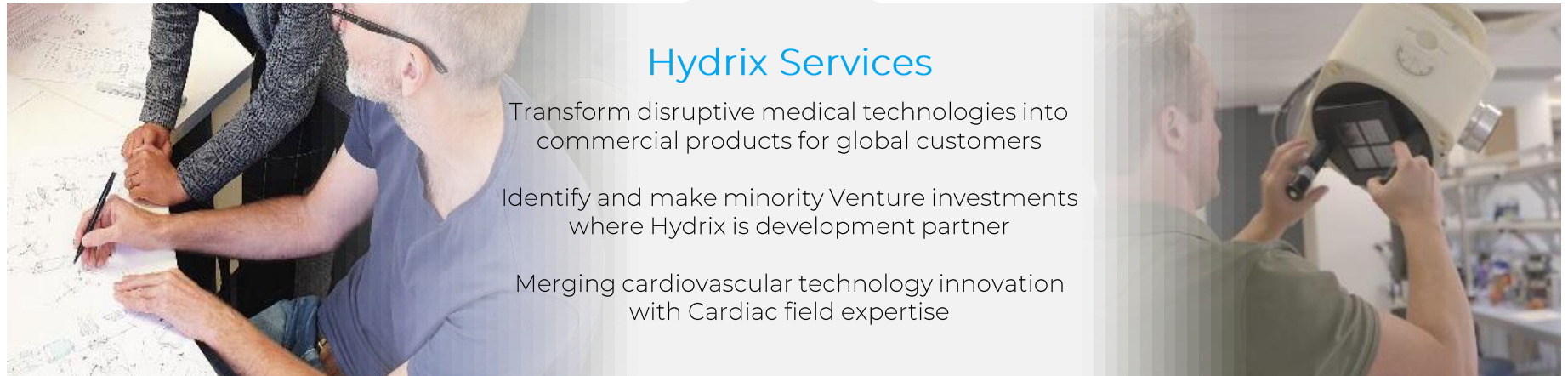
## Hydrix Medical

Bring to market disruptive cardiovascular products that solve unmet needs



## Hydrix Ventures

Invest in early stage, high potential, medical device clients



## Hydrix Services

Transform disruptive medical technologies into commercial products for global customers

Identify and make minority Venture investments where Hydrix is development partner

Merging cardiovascular technology innovation with Cardiac field expertise

A key focus is the large, addressable, cardiovascular diseases market

# Hydrix commercial model

## Three complementary value-creating segments

### 1. Hydrix Services

Strong year-on-year growth, profitability ahead

- FY22 revenue \$10.3m up 40% YoY, ~60 employees
- USA expansion - EVP business development appointed October (USA<10% FY22 revs)
- +\$60m sales pipeline, trend revenue growth outlook for FY23 is +20%
- Sales growth & improving gross margins returning segment to profitability in FY23

### 2. Hydrix Ventures

Major inflection points anticipated in CY23

- Minority interest in four venture investments in Hydrix Services clients
- Two have commenced sales (AngelMed, Memphasys)
- Two have products being developed by Hydrix Services (Cyder, Cyban)
- Book value **\$3.65m** on cash invested ~**\$2.0m**

### 3. Hydrix Medical

The GUARDIAN:  
US FDA approved, TGA pending

- Two pre-revenue products under exclusive distribution rights (The GUARDIAN & Phyzhon FFR)
- The GUARDIAN heart attack alert device, @**2%-5%** capture est. revs **\$25m-\$60m** p.a.
- The Guardian progressing through regulatory reviews & clinical trials
- Leadership team +80 years cardiovascular technology & medical experience

### Hydrix Limited (ASX:HYD)

Capitalising on considerable opportunities created

- Owns 100% of Services, Ventures and Medical
- Sum of the segments value potentially > market cap ~**A\$14m**
- Cash on hand 30/6/22 **\$1.9m**
- Current funding activities: Entitlement Offer (up to **\$6m** in progress), 12c Loyalty Options

# Hydrix Services

Product development from concept to market ready



## Why companies choose Hydrix

- Experts in Safety Critical Systems i.e. technologies that if they malfunction people get seriously injured or die
- 20 years of medical device development +300 projects
- Highly specialised, multi-disciplined design & engineering capabilities
- Recognised leaders in Mechanical Circulatory Support innovation

## Financial Snapshot

- FY22 revenues grew +40%, international revenues +50%, +40% cardiovascular
- Qualified sales pipeline +\$60m
- FY23 trend revenue +20%, primarily international
- Trend gross margins on direct labour costs +65%
- 60-person team, trend billable resource utilisation >55%, capacity to grow
- Improving sales and margins trending to FY23 profitability

Target market: \$2B outsourced medtech product development



# Hydrix Ventures

Investing in breakthrough medtech product innovation

## Angel Medical Systems, USA



**Manufacturer of The GUARDIAN, the world's only implantable continuous cardiac monitor with ACS detection technology.**

### Investment:

1m shares @US\$1.00/share, ~3% ownership, book value \$1.5m

### Status: commenced sales

- FDA approved (June 2021)
- Commenced commercial sales 1/1/2022 under a USA Medicare TPT Code for US\$10,250 per device
- Sales growth & major funding inflection points in CY23

### Market potential:

- >USD \$2B p.a.

## Cyder Surgical Limited



**An intra-operative surgical navigation system to assist surgeons position implants with greater accuracy during total hip arthroplasty.**

### Investment:

Equity-in-kind for Services, ownership ~7.5% (milestone triggers), book value \$1.2m

### Status: pre-revenue

- Hydrix developed product
- Clinical data being finalised for FDA & TGA submissions
- Target commercialisation CY23
- Sales growth & major funding inflection points in CY23

### Market potential:

- >USD \$40b p.a.

## Cyban Limited



**A non-invasive continuous tissue oxygen monitor measuring brain oxygen levels for patients in intensive care unit.**

### Investment:

\$0.5m invested, ~6.0% ownership, book value \$0.95m

### Status: pre-revenue

- Completed \$5.25m fund raising CY2022
- Featured in The Australian 24/6/2022
- Hydrix developing 1st generation product
- Target commercialisation CY24

### Market potential:

- >USD \$1.7B addressable market

## Memphasys Limited



**A novel technology for reproduction technologies, including IVF in humans and artificial insemination in animals.**

### Investment:

500,001 shares, book value ~\$20,000 plus 3,000,000 unlisted \$0.10c Options expiring Sept 2023

### Status: (ASX: MEM) commenced sales

- Product placed in India and Australia for use in human IVF programs
- Expanding products & IP portfolio

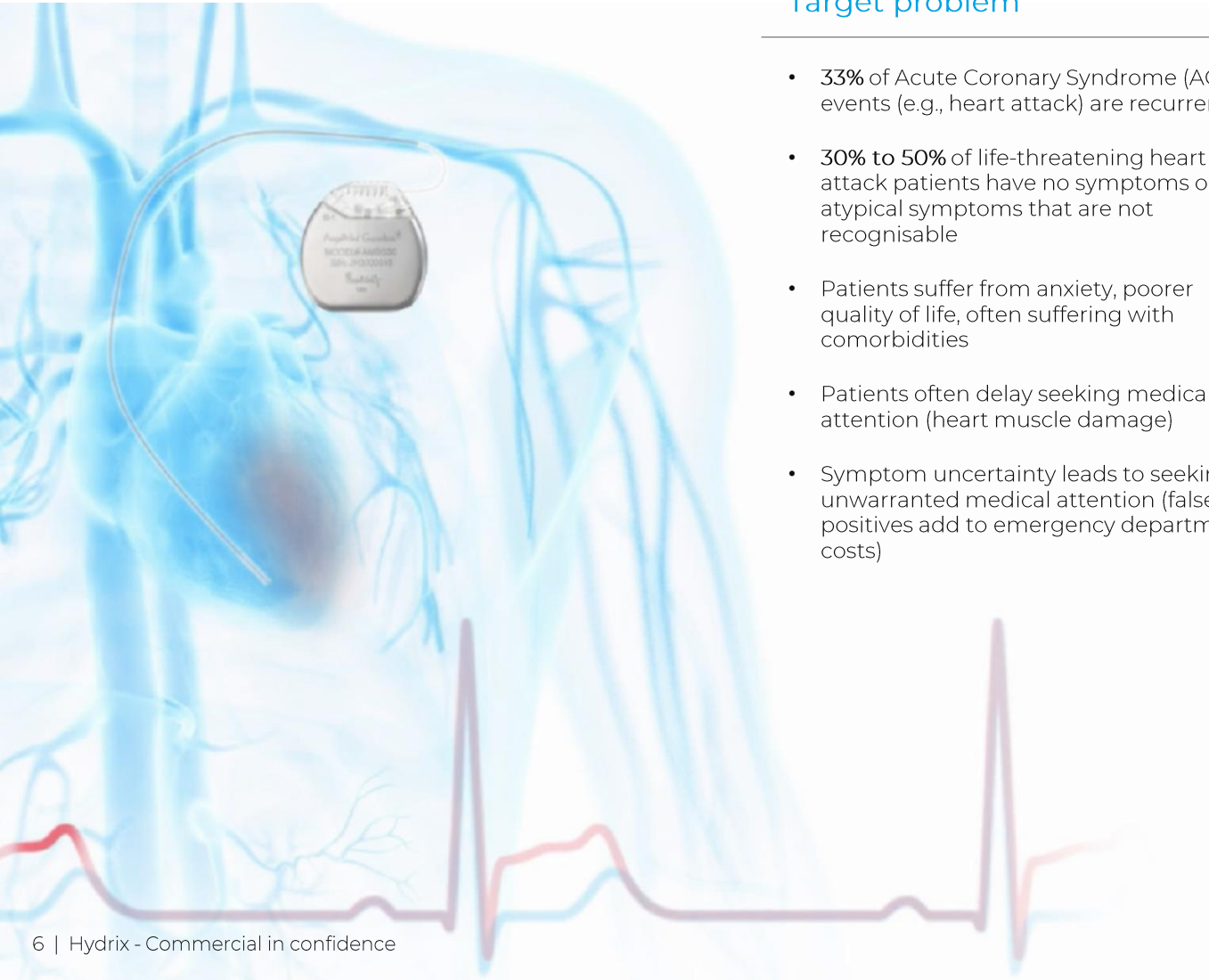
### Market potential:

- IVF >USD \$26.4b in 2026

Major inflection points anticipated in CY23  
Audited book value is \$3.65M (cash invested ~\$2M)

# Hydrix Medical: The GUARDIAN

The world's first and only heart attack warning system



## Target problem

- 33% of Acute Coronary Syndrome (ACS) events (e.g., heart attack) are recurrent
- 30% to 50% of life-threatening heart attack patients have no symptoms or atypical symptoms that are not recognisable
- Patients suffer from anxiety, poorer quality of life, often suffering with comorbidities
- Patients often delay seeking medical attention (heart muscle damage)
- Symptom uncertainty leads to seeking unwarranted medical attention (false positives add to emergency departments costs)

## Benefits offered

- The GUARDIAN, FDA approved, constantly monitors a heart and alerts patient to see a doctor or seek emergency intervention, including when experiencing atypical heart attack symptoms
- Infrastructure & know-how already exists - implanted similarly to a pacemaker
- Real-time detection has 91% positive predictive value to get patients to medical attention 8x faster than recognisable symptoms alone
- Reduces false positive presentations by 26% helping to reduce potential unnecessary visits to emergency departments compared to patient symptoms alone
- Can reduce hospital stay length and drugs used to manage condition
- Improves patient quality of life

## Status (Hydrix)

- Exclusive rights licensed to distribute in 8 countries
- Pre-commercial sales
- Progressing regulatory approvals & reimbursement
- Approved to distribute in Singapore, Malaysia, New Zealand
- Pending approvals in Australia & Thailand
- Applications planned for Japan, Hong Kong, Indonesia

Potential future revenues \$25m to \$60m p.a.  
2%-5% ACS market capture, target A\$10,000/u, initial markets

Refer appendix Slide 13

# Hydrix Medical: The GUARDIAN

## Regulatory & insurance reimbursement market development

Hydrix is actively working on regulatory approvals and reimbursement processes across multiple jurisdictions, and other market development activities to commercialise The Guardian

Country* / Agency	Appl. Date	Status	Notes
USA / FDA	n/a	Approved	Distributed in the USA by Angel Medical Systems (owner of The Guardian)
Australia / TGA	26 Jul 2021	In progress	TGA submission July 2021. Pending approval, commence sales in public hospitals, advance MSAC application to obtain MBS Item code, pending MSAC outcome submit PLAC application
Singapore / HSA	16 Aug 2021	Approved	HSA submission November 2021. Granted approval August 2022. Patients can pay out of pocket for an implant. A TOSP application will be made for next listing in CY24
Malaysia / Ministry of Health	27 Dec 2021	Approved	MOH submission October 21. Granted approval June 2022. Commenced discussions with 3rd parties to sub-license
Thailand / Thai FDA	12 Oct 2021	In progress	Thai FDA submission Nov 2021
New Zealand / MMDSA **	11 Aug 202	WAND notified	WAND notified August 2021. Developing go-to-market program
Hong Kong	-	Not started	Application to be developed in CY2023
Japan	-	Not started	Application to be developed with Japan-based consultants in CY2023
Indonesia	-	Not started	Application subject to 3 <sup>rd</sup> party sub-license appointment

*\* Hydrix has exclusive rights to distribute The Guardian in 8 APAC jurisdictions*

*\*\* Medicines and Medical Devices Safety Authority (MMDSA)*

# Hydrix Limited

## Potential news flow next 12 months

Hydrix Services	<ul style="list-style-type: none"><li>• Revenue growth &amp; improving margins trending to profitability in FY23</li></ul>
Hydrix Ventures	<ul style="list-style-type: none"><li>• Ramp-up by Angel Medical sales in the USA of The GUARDIAN and major funding inflection points in CY23</li><li>• Gyder Surgical submissions to FDA and TGA for regulatory approval and major funding to support commercialisation anticipated for CY2023</li></ul>
Hydrix Medical	<ul style="list-style-type: none"><li>• <b>Finalise Australia implant Registry &amp; site initiation for The Guardian</b><ul style="list-style-type: none"><li>◦ National cardiology group commence screening for suitable patients for first Australian implants under special access</li><li>◦ Supports commercial market development</li></ul></li><li>• <b>Pending: Australian regulatory approval (lodged 26 July 2021)</b><ul style="list-style-type: none"><li>◦ Pending outcome, rights to market &amp; distribute, initially to Public hospital patients or private patient payer</li><li>◦ Advance MSAC application for an MBS Item Code to reimburse surgical procedure</li><li>◦ Pending MSAC outcome, lodge PLAC application for Guardian device private insurance reimbursement</li><li>◦ Pending PLAC outcome, commence private insured patient implants</li></ul></li><li>• <b>Singapore regulatory approval received and announced August 2022</b><ul style="list-style-type: none"><li>◦ Commence sales &amp; marketing campaigns to find suitable patients to implant on a 'patient-pay' basis</li><li>◦ Application will be made to include The Guardian on the Table of Surgical Procedures (TOSP) to reimburse patient (next TOSP listing is CY2024)</li></ul></li><li>• <b>Malaysia regulatory approval received and announced June 2022</b><ul style="list-style-type: none"><li>◦ Commence discussions with potential sub-distribution partners</li></ul></li><li>• <b>Pending production/shipment of trial Phyzhon Health FFR Wires &amp; Catheter Lab consoles</b><ul style="list-style-type: none"><li>◦ Commence Phyzhon FFR Wire first in human (FIH) trial in Melbourne</li></ul></li></ul>



# Hydrix Limited

Highly experienced and credentialled board



**Mr Gavin Coote**  
*Executive Chairman*

Gavin has extensive executive and board leadership experience, gained in the USA and Australia, working at companies with revenues of up to \$1 billion across diverse industries. It includes years with PricewaterhouseCoopers, a decade in technology mergers & acquisitions, corporate development, and venture investing in the United States, and fifteen years in Australian-based SME private equity at Imperium Capital Group across healthcare, industrial and residential construction materials, leisure and hospitality, and sports and entertainment.



**Mr Paul Wright**  
*Non-Executive Director*

Paul has spent the last 18 years as CEO of three of Australia's leading international technology and biomedical companies, specifically ASX listed Universal Biosensors (UBI), Invetech and Vision Biosystems. At Universal Biosensors, Paul built long term partnerships with global diagnostics leaders Siemens Healthcare and Johnson & Johnson and led the company through a period of strong growth and new product development. Other past roles included 8 years with Bain & Company, and GM Corporate Development at TNT Logistics.



**Mr Paul Lewis**  
*Non-Executive Director*

Paul started his career in technology leadership for companies including Mobil Oil Corporation, ICL and as Managing Partner for PA Consulting, Asia. Over the past 15+ years he has held a variety of Non-Executive Director and Advisory roles for companies including Volt Bank, Grassrootz, the Australian British Chamber of Commerce and Chair of ipSCAPE. Paul recently retired from the Board of the Magellan Financial Group after 15 years where he had served as Director from its inception.



**Ms Julie King**  
*Non-Executive Director*

Julie has more than 40 years' experience in commercial and property negotiations, corporate communications, people and change management. She has held senior roles in maritime, airline, banking and FMCG industries. Julie is also a Director of a number of privately-owned businesses and the King Family Foundation. Julie and her husband manage property and share market portfolio investments.



**Ms Joanne Bryant**  
*Non-Executive Director*

Joanne has more than 40 years of experience as an occupational therapist. She also has extensive experience in forensic occupational therapy and vocational counselling and is an expert witness in various medico-legal matters within the multi-tiered Victorian court system. She has worked with numerous organisations in both the public and private sectors to enhance individual workplace performance. Joanne is actively involved in the not-for-profit sector and is a Board member of "Outside the Locker Room".



**Ms Alyn Tai**  
*Corporate Counsel*

Alyn is a practising lawyer who specialises in the areas of corporate and commercial law, and the provision of company secretarial, corporate governance and legal counsel services to entities listed on the Australian Securities Exchange. Alyn holds a Bachelor of Laws from the University of Exeter, and was called to the Bar of England and Wales before being admitted to the Supreme Court of Victoria as an Australian lawyer.

# Hydrix Limited

## Corporate snapshot

Major Shareholders	Shares (m)	%
John W. King Nominees	27.3	11.8
Paul Lewis (Invia Custodian)	14.9	6.4
Roger Allen & related entities	10.4	4.5
Pusen Medical Technology Australia Pty Ltd	7.3	3.2
Gavin Coote & related entities	5.2	2.3
National Nominees	4.2	1.8
Australian Philanthropic & Services Foundation	3.9	1.7
<b>Top 20</b>	<b>102.6</b>	<b>44.4</b>

Board	Ownership %
Gavin Coote (GAICD)    Executive Chairman	2.3%
Paul Wright    Non-Executive Director	1.0%
Julie King (GAICD)    Non-Executive Director	11.8%
Paul Lewis (FAICD)    Non-Executive Director	6.4%
Joanne Bryant    Non-Executive Director	1.0%
Alyn Tai    Corporate Counsel and Company Secretary	

Capital Structure	(as of 14 October 2022)
Ticker	HYD
Share Price	\$0.06
Shares on Issue (m)	231.0
Options and Performance Rights (m)	37.3
Warrants*	1
<b>Market Capitalisation (undiluted) (A\$m)</b>	<b>\$13.9m</b>

\*On issue to a previous lender, exercisable into 8 million shares.



# Creating positive outcomes in global healthcare



## Building momentum

### Hydrix Services:

Strong year-on-year growth, profitability ahead

### Hydrix Ventures:

Major inflection points anticipated in CY23

### Hydrix Medical:

The GUARDIAN: catalyst for product revenue growth

### Hydrix Limited:

Capitalising on considerable opportunities created

# Appendix

# Hydrix Medical: The GUARDIAN

## APAC region market potential

GUARDIAN® market penetration leverages >5-decades of pacemaker surgery know-how and existing catheter laboratory infrastructure

Potential Market Size (illustration only)			Annual Sales Volume (units)		Annual Sales Value (A\$) <sup>2</sup>	
Region	Population (M)	ACS Incidences p.a. <sub>1</sub>	2.0%	5.0%	2.0%	5.0%
Australia	25.8	75,000	1,500	3,750	\$15.0m	\$37.5m
Singapore	5.7	30,000	600	1,500	\$6.0m	\$15.0m
New Zealand	5.1	18,000	360	900	\$3.6m	\$9.0m
<b>Direct to market</b>	<b>36.6</b>	<b>123,000</b>	<b>2,460</b>	<b>6,150</b>	<b>\$24.6m</b>	<b>\$61.5m</b>
Malaysia	32.7	85,000	1,700	4,250		
Japan	125.8	289,000	5,780	14,450		
Hong Kong	7.5	12,500	250	625		
<b>Indirect to market<sub>3</sub></b>	<b>166.0</b>	<b>386,500</b>	<b>7,730</b>	<b>19,325</b>		

1.

ACS = Acute Coronary Syndrome - any condition brought on by a sudden reduction or blockage of blood flow to the heart. Capture rate estimates based on targeting 'high risk' patients with co-morbidities such as diabetes, renal insufficiency and obesity and prior ACS episode

2.

Sales value estimates for illustration only. Pricing subject to health scheme agreements for each jurisdiction. Sales price target is A\$10,000 per device direct to market in Australia, Singapore & New Zealand. Estimated gross profit margins ~40%. Sales are subject to regulatory approvals

3.

Pricing not yet set in markets anticipated to be entered via sub-distribution arrangements: Malaysia, Hong Kong, Japan, Thailand & Indonesia which are included under exclusive distribution rights



# Hydrix

## Senior Leadership



**Vickie Edwards**  
*Director Sales & Operations*  
*Hydrix Medical*

Vickie has more than 25 years' of health technology industry expertise. She brings cardiothoracic clinical experience and a deep commercial capability and understanding of how to successfully bring new interventional cardiac devices to market. Her broad capabilities across sales, marketing, field operations, patient care and regulatory affairs further strengthen our senior leadership as we progress towards launch of a portfolio of cardiac products and technologies, initially in Asia-Pacific markets.



**Paul Kelly**  
*General Manager*  
*Hydrix Medical*

**Paul has 35+ years of international medical device distribution and services leadership with companies including Getz, Medtronic, Baxter Healthcare and CardioScan. With an impressive track record in implantable and non-invasive cardiac devices (pacemakers, stents, heart valves) and patient monitoring, Paul is General Manager Hydrix Medical, and on the Medical Advisory Committee.**



**Robert Brierly**  
*Group Director Human Resources*

A passionate, strategic thinking, people and culture leader and consultant, with a proven track record in handling complexity, adapting to rapid and ambiguous change and advising staff and leaders to achieve organisational capability and agility. Applying composure under pressure, leveraging analytics and data to create sustained culture change. Optimising best practice governance through proven robust policies and procedures, protecting brand and reputation through collaborative business partnerships.



**Alan Morris**  
*Group Director Marketing*

Alan has 30 years' experience in new product development consulting, with expertise in disruptive innovation, new and emerging technologies, and driving marketing strategies for the MedTech and biomedical consulting markets. His experience includes marketing and development roles for more than 20 years with Invetech, a global leader in IVD and Cell Therapy product innovation



**Mark Langham**  
*Group Financial Controller*

Mark is a versatile accounting executive with experience in multiple industry sectors gained through his work in public practice, SME private equity, and professional service firms over the past 15+ years'. Mark is a Registered Tax Agent and Financial Advisor, and a Member of the Institute of Chartered Accountants in Australia and New Zealand

# Hydrix

## Senior Leadership Hydrix Services



**Michael Trieu**  
*General Manager*  
*Hydrix Services*

Michael is an R&D innovation leader with 20 years of hands-on system innovation, research, design, development and delivery experience in the field of military underwater sonar, active implantable medical devices, medical device infection control and medical device engineering consulting. He has held senior roles at both Cochlear and Nanosonics.



**Peter Riddell**  
*Director Business Development*  
*Hydrix Services*

Peter is an accomplished business development professional with experience growing international consultancy businesses. He has 30+ years of experience in medical device, diagnostics and point-of-care markets together with driving growth across emerging markets including Cell Therapy Platforms. Peter's role at Hydrix is to drive strategy and direct the business development function, as they identify and pursue new market opportunities.



**Graeme Robertson**  
*Project Management Office*  
*Director Hydrix Services*

Graeme has been a consultant and Project Manager for over 20 years in the development of a broad range of medical, diagnostic and health care instruments, including the past three years devoted to MCS systems development. Graeme has also worked as a Digital Electronics Design Engineer and Project Manager in the design and manufacturing of Atomic Absorption, UV-Visible, and ICP spectrometers (Varian), and high-speed communication test equipment (Hewlett Packard).



**Andrew Beal**  
*Engineering Manager*  
*Hydrix Services*

Andrew has more than 16 years experience in the development of complex electronic systems. His role today at Hydrix has him responsible for building and maintaining our world class engineering team of passionate professionals, delivering exceptional products for our clients. Andrew brings a unique insight to this critical people management role providing mentorship, training and career development opportunities. His project experience includes FDA Class II & III medical devices, rail, automotive and industrial products.



**Peter Lewis, AM**  
*EVP Business Development*  
*Hydrix Services*

Peter is an accomplished executive with 30 years' experience of international business development having lived and worked in markets across Asia, the USA, and Europe. During his career, Peter has had a variety of roles across R&D, finance, M&A, international trade and sales & marketing generating over \$1 billion in new business value in medical and advanced technologies.

# Disclaimer

This presentation has been prepared by Hydrix Limited (the “Company” or “Hydrix”). This presentation is being provided to investors for the sole purpose of providing preliminary background financial and other information to enable recipients to review the business activities of the Company. The document is not intended to constitute an invitation or an inducement to engage in any investment activity. The presentation is not intended to constitute investment advice and should not be relied upon as such. This document is not intended as an offer or recommendation with respect to the purchase or sale of any securities in the Company.

The content and graphical illustrations contained in the presentation are provided for information purposes and should not be relied upon to form any investment decisions or to predict future performance. The Company is wholly reliant upon third parties for the accuracy and completeness of the information in the presentation and has no duty of care owed to you in relation to such information. Although the information expressed is provided in good faith and the Company believes that its expectations are based on reasonable assumptions, it can give no assurance that its goals will be achieved. Important factors that could cause actual results to differ materially from those included in the forward-looking statements include amongst others, unforeseen delays in product development, the timing and extent of any changes in the associated technology and the ability of the Company to meet its stated business goals.

Prospective investors should make their own independent evaluation of an investment in the Company or seek advice from their financial adviser, accountant, lawyer, stockbroker or other professional adviser before making any investment decision. Nothing in this presentation should be construed as financial product advice, whether personal or general, for the purposes of Section 766B of the Corporations Act, or otherwise. This presentation does not amount to, involve or imply a recommendation or a statement of opinion in respect of whether to buy, sell or hold a financial product.

Neither Hydrix nor any of its or their associates or any of the Company’s directors’ (Hydrix Group) shall have any liability whatsoever for: (a) investment advice; (b) a recommendation to enter into any transaction or strategy; (c) advice that a transaction or strategy is suitable or appropriate; (d) the primary basis for any investment decision; (e) a representation, warranty, guarantee with respect to the legal, accounting, tax or other implications of any transaction or strategy; or (f) to cause the Hydrix Group to be an advisor or fiduciary of any recipient of this report or other third party. None of the Hydrix Group shall be responsible for or have any liability to you for losses or damages (whether consequential, incidental or otherwise) arising in any way for errors or omissions in, or the use of or reliance upon the information contained in this document. To the greatest extent permitted by law, we exclude all conditions and warranties that might otherwise be implied by law with respect to the document, whether by operation of law, statute or otherwise, including as to their accuracy, completeness or fitness for purpose. Unauthorised copying of this document is prohibited.

hydrix<sup>®</sup>

[www.hydrix.com](http://www.hydrix.com)