

# CHANGING THE WAY WE LOOK AT CANCER

IMAGION BIOSYSTEMS  
ASX : IBX  
EGM 13 NOVEMBER 2023



# Forward-looking Statements

This investor presentation (Presentation) has been prepared by Imagion Biosystems Limited (Imagion or the Company). This presentation does not constitute or form part of, and should not be construed as, an offer, solicitation or invitation to subscribe for, underwrite or otherwise acquire, any securities of Imagion or any member of its group nor should it or any part of it form the basis of, or be relied on in connection with, any contract to purchase or subscribe for any securities of Imagion or any member of its group, nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever.

This presentation is not a Prospectus and contains summary information about Imagion and its activities, which is current as at the date of this presentation. The information included in this presentation is of a general nature and does not purport to be complete nor does it contain all the information which a prospective investor should consider when making an investment decision. Each recipient of this presentation should make its own enquiries and investigations regarding all information in this presentation including but not limited to the assumptions, uncertainties and contingencies which may affect future operations of Imagion and the impact that different future outcomes may have on Imagion. This presentation has been prepared without taking account of any person's investment objectives, financial situation or particular needs. Before making an investment decision, prospective investors should consider the appropriateness of the information having regard to their own objectives, financial situation and needs, make their own assessment of the information and seek legal, financial, accounting and taxation advice appropriate to their jurisdiction in relation to the information and any action taken on the basis of the information.

The information included in this presentation has been provided to you solely for your information and background and is subject to updating, completion, revision and amendment and such information may change materially. Unless required by applicable law or regulation, no person (including Imagion) is under any obligation to update or keep current the information contained in this presentation and any opinions expressed in relation thereto are subject to change without notice. No representation or warranty, express or implied, is made as to the fairness, currency, accuracy, reasonableness or completeness of the information contained herein. Neither Imagion nor any other person (including its shareholders, directors, officers and employees) accepts any liability and Imagion, its shareholders, its related bodies corporate and their respective directors, officers and employees, to the maximum extent permitted by law, expressly disclaim all liabilities for any loss howsoever arising, directly or indirectly, from this presentation or its contents.

This presentation includes forward-looking statements that reflect Imagion's intentions, beliefs or current expectations concerning, among other things, Imagion's results of operations, financial condition, performance, prospects, growth, strategies and the industry in which Imagion operates. These forward-looking statements are subject to risks, uncertainties and assumptions and other factors, many of which are beyond the control of Imagion. Imagion cautions you that forward-looking statements are not guarantees of future performance and that its actual results of operations, financial condition, performance, prospects, growth or opportunities and the development of the industry in which Imagion operates may differ materially from those made in or suggested by the forward-looking statements contained in this presentation. In addition, Imagion does not guarantee any particular rate of return or the performance of Imagion nor does it guarantee the repayment or maintenance of capital or any particular tax treatment. Investors should note that past performance may not be indicative of results or developments in future periods and cannot be relied upon as an indicator of (and provides no guidance as to) Imagion's future performance. Imagion, its related bodies corporate and each of their respective directors, officers and employees and advisers expressly disclaim any obligation or undertaking to review, update or release any update of or revisions to any forward-looking statements in this presentation or any change in Imagion's expectations or any change in events, conditions or circumstances on which these forward-looking statements are based, except as required by applicable law or regulation.

This presentation and any materials distributed in connection with this presentation are not directed to, or intended for distribution to or use by, any person or entity that is a citizen or resident or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would require any registration or licensing within such jurisdiction.

The distribution of this presentation in certain jurisdictions may be restricted by law and persons into whose possession this presentation comes should inform themselves about and observe any such restrictions.

# Executive Summary

- 1st-mover expanding biomedical access and application impact of SPIONs (superparamagnetic iron oxide nanoparticles)
- MagSense® technology improves clinicians' ability to visualize tumors and metastases with standard MRI instruments
- MagSense® HER2 imaging agent was safe and well-tolerated in Phase 1 clinical trial
- MagSense® product pipeline targets deadliest and frequently metastatic cancers

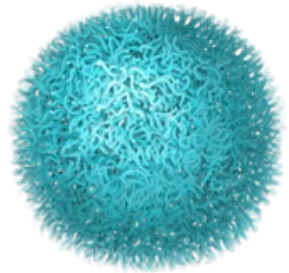
**Imagion Biosystems, Ltd.**  
**ASX: IBX**

Imagion is delivering  
molecular spatial  
resolution in Magnetic  
Resonance Imaging to  
*change the way  
we look at cancer*

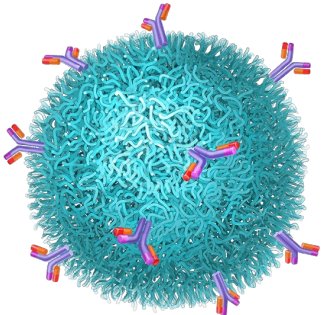
# MagSense® - Molecularly Targeted Magnetism



Superparamagnetic Iron Oxide Nanoparticles (SPIONs)



Biocompatible polymer coatings improve bioavailability



Conjugation of targeting molecules confers specificity

Versatile synthesis platform enables biomedical application diversity

- Positive and negative MRI contrast
- Therapeutic hyperthermia (e.g., tumor ablation)
- Nanoparticle-based vaccines

Tunable polymer coatings optimize performance

- Bioavailability
- Immune response
- Target-ability

Array of chemistries facilitates drug-loading and biomolecular targeting

- Proteins and peptides
- Small molecules and toxins



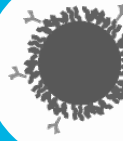
# How MagSense® Works

MagSense® nanoparticles are directed to the tumor and 'sense' MRI magnetism on tumor binding



## 01. Inject

Single, low-dose  
MagSense® imaging  
agent injection



## 02. Target

MagSense®  
nanoparticles are  
biomolecularly  
targeted with highly  
specific, high-affinity  
binders



## 03. Bind

Tumor binding makes  
MagSense®  
nanoparticles'  
superparamagnetism  
detectable for MRI  
imaging

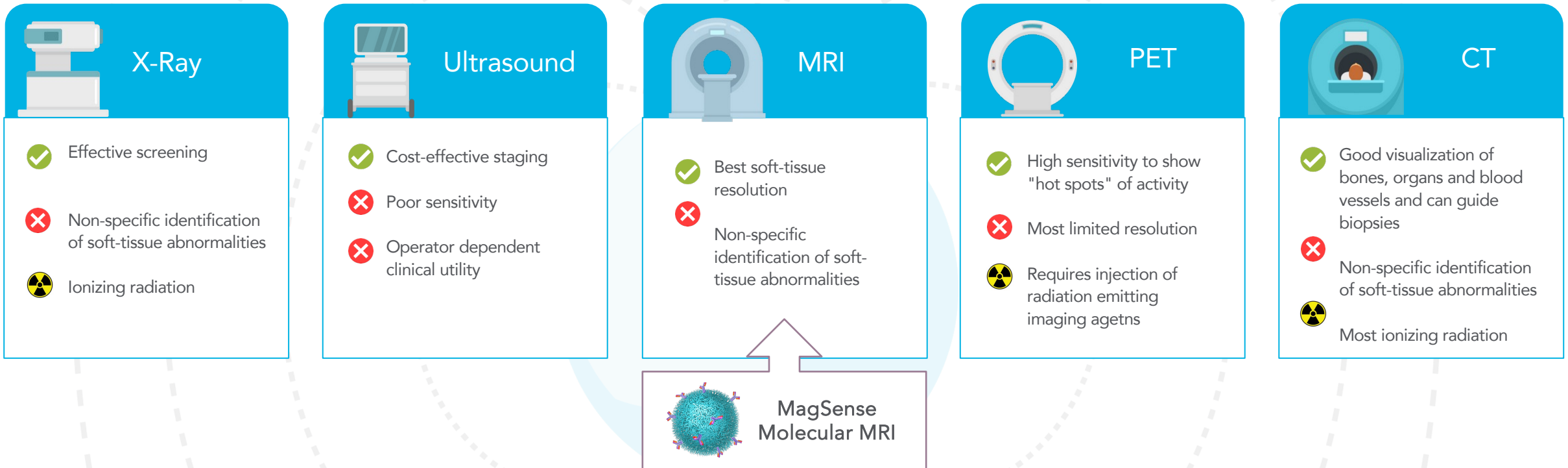


## 04. Clear

MagSense® nanoparticles  
are safely cleared by the  
liver where the iron core  
is metabolized to ferritin  
in the hemoglobin  
production pathway

# Molecular MRI Changes the Way We Look at Cancer

Diagnostic imaging is fundamental in precision oncology



Molecular MRI differentiates benign from malignant lesions



# MagSense® HER2 Imaging Agent

# MagSense® HER2 Imaging Agent

*Changing the way we look at HER2+ Breast Cancer*

- Detection of nodal metastases in HER2+ breast cancer
- Safe & well-tolerated in 13 patient Phase 1 trial (enrollment completed July, 2023)
  - 3 patients no / limited lymph drainage
  - 2 patients excess MRI susceptibility
- Full results reported December, 2023 at San Antonio Breast Cancer Symposium
  - 7/8 interpretable patients yield accurate molecular MRI
    - Blinded review by independent radiologists has corroborated pathologists' findings
    - 1 pt had incomplete pathology



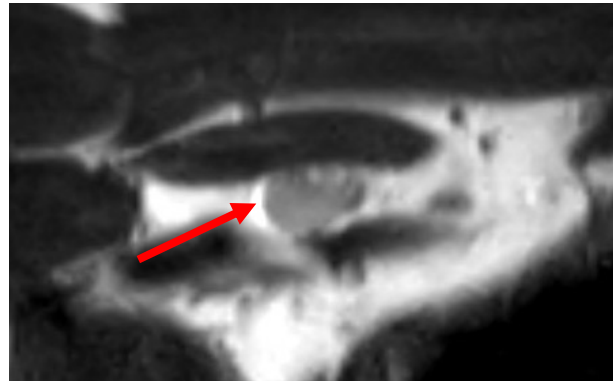
# MagSense® Molecular MRI Makes the Difference

## Homogeneous Hypointensity by Normal Lymph Nodes

### Predose

Enlarged, ovoid axillary lymph node

**Tumor Involved?**



### Postdose

Uniformly darkened lymph node suggests

**Benign / Normal**



## Heterogeneous Hypointensity in Suspicious Lymph Nodes

### Predose

Enlarged axillary lymph node with replacement of the normal fatty hilum

**Tumor Involved?**



### Postdose

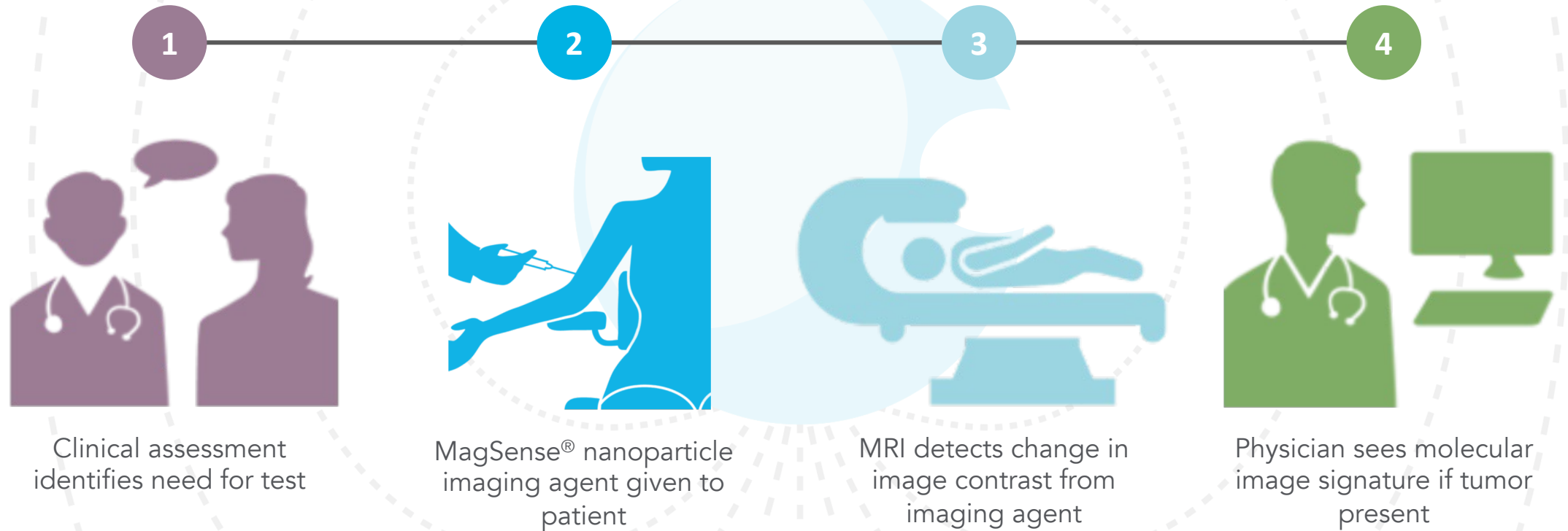
Heterogeneous hypointensity and slightly darkened cortex confirms

**Metastatic Disease**



# MagSense® Fits Clinical Workflows

MagSense® delivers molecular discrimination with conventional MRI instruments







# Imagion's Approach

# Market Fundamentals & Momentum Support MagSense®

- **Increasing chronic disease incidence**
  - Accelerating Neurovascular & Cardiovascular applications
- **Rising cancer incidence**
  - Global cancer burden grew 26% last decade<sup>1</sup>
  - By 2030: ~22M New Cancer Diagnoses & ~13M Cancer Deaths<sup>2</sup>
- **Precision oncology producing an ever-expanding oncology therapeutic arsenal**
  - Companion Dx opportunities
- **Increasing procedure volume focused on 'malignant vs. benign?'**
  - Screening & Diagnostic Imaging: Fastest growing healthcare services spend / Medicare beneficiary<sup>3</sup>

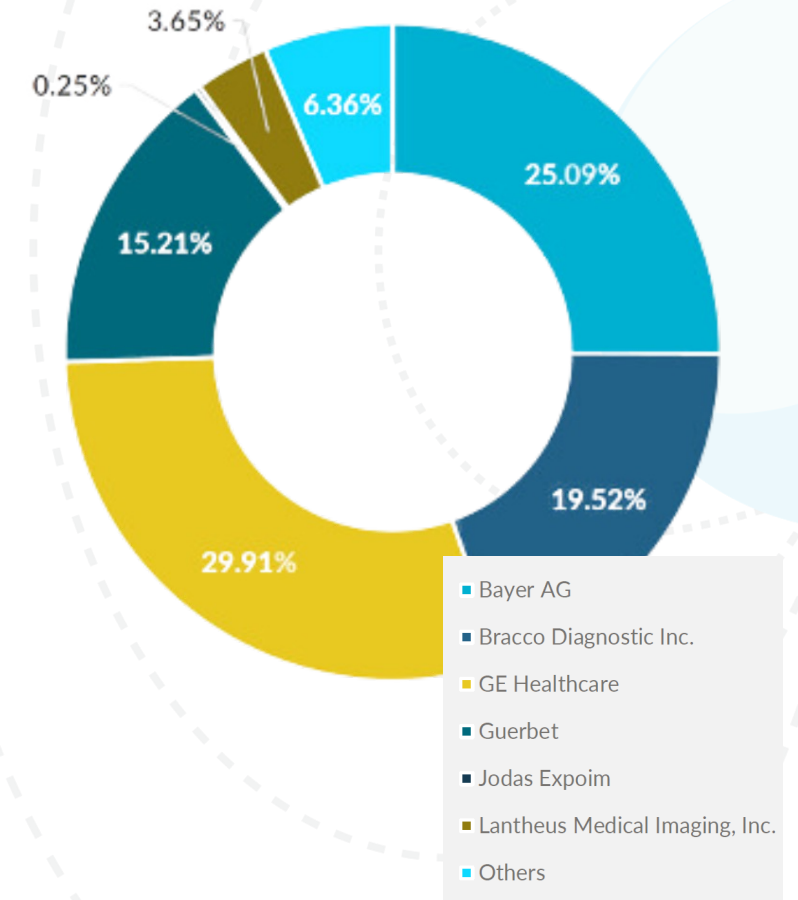


Sources: (1) JAMA Oncology. 2022. (2) International Agency for Research on Cancer. (3) Medicare Payment Advisory Commission (MedPAC) and Centers for Medicare and Medicaid Services (CMS). Mordor Intelligence. Global Contrast Media Market








# MagSense®: Imagination's Compelling Investment Thesis

- **GE, Bayer, & Bracco dominate imaging contrast media market**
  - Highly consolidated market ripe for disruption
  - Molecular imaging subsector is most dynamic and driving growth
- **Accelerating approvals for imaging contrast reagents globally**
  - Market still responding to FDA's >5 year-old safety warning on Gadolinium-based agents
  - SPIONs are the safe and efficient alternative
- **Molecular imaging advantage: Immuno-MRI applications will outpace Immuno-PET**
  - MRI is >4X Global installed base of PET scanners
  - Positron emission constrains supply chain and clinical application
  - Accelerating demand for non-invasive evaluation of treatment efficacy & prognosis prediction

**Contrast Media Market**  
Global Share (%), by Company



# Differentiated in Consolidating Competitive Landscape

|                              |  GE HealthCare |                             |  | Guerbet    |  LANTHEUS |  |                        |
|------------------------------|---|--|---|---|--|---|---|
| Private / Public:<br>Mkt Cap | NASDAQ: GEHC<br>\$29.5B Mkt Cap   | OTC: BAYRY<br>\$52.9B Mkt Cap  | Private; ~\$1.4B '22<br>Revenue; 3450 FTEs  | Euronext: GBT<br>€258M Mkt Cap  | NASDAQ: LNTN<br>\$4.5B Mkt Cap   | Private; ~\$68M Rev<br>2021   | ASX: IBX<br>\$15M Mkt Cap   |
| Radiopharm<br>Segment(s)     | XR, XR-fluoro, CT,<br>U/S, MRI, MRA, PET,<br>SPECT  | XR, XR-fluoro, CT,<br>MRI, MRA<br><br>Tx: Phase 1:<br>BAY2315497 is anti-<br>PSMA targeted <sup>227</sup> Th | XR, XR-fluoro, CT,<br>U/S, MRI, MRA, PET,<br>SPECT                                  | XR, XR-fluoro, CT,<br>MRI, MRA  | U/S, PET, SPECT<br><br>Tx: Azedra® <\$10M<br>annual Revenue                                  | XR, XR-fluoro, MRI,<br>MRA  | MRI, MRA  |
| Operating<br>Footprint       | Chicago HQ; Global<br>footprint   | Berlin HQ; Global<br>footprint   | Milan HQ;<br>commercial<br>partnership channels<br>reach >100 countries             | Villepinte HQ;<br>commercial<br>partnership channels<br>reach >80 countries                   | Boston HQ; PR,<br>Canada & Australia<br>ops; distribution<br>deals to EU, APAC, &<br>LatAm   | Hyderabad HQ;<br>Product approvals in<br>EU & Russia                                | San Diego HQ;<br>Australia ops  |
| Pipeline<br>Promise          | Ph1: 1 <sup>st</sup> Mn-based<br>MRI contrast agent   | Tx: Xofigo®<br>\$250M annual<br>Revenue  | Gadopiclenol Collaboration  |   | Phase 3: Point<br>Biopharma<br>collaboration anti-<br>PSMA <sup>177</sup> Lu-<br>PNT2002     |   | 1 <sup>st</sup> Mover<br>Molecular MRI:<br>Ph1 Complete for<br>MagSense HER2<br>Imaging Agent<br>(MSH2IA) |

# MagSense® Molecular MRI: Transforming Precision Oncology

## MagSense® HER2 Imaging Agent (MSH2IA)

- 13 Patient Phase 1 Study Complete
- IND submitted to US FDA 1Q:24

## MagSense® PSMA Imaging Agent (MSPIA)

- In vivo PoC complete
- Mature project - Approaching IND-enabling studies

## MagSense® FR Imaging Agent (MSFIA)

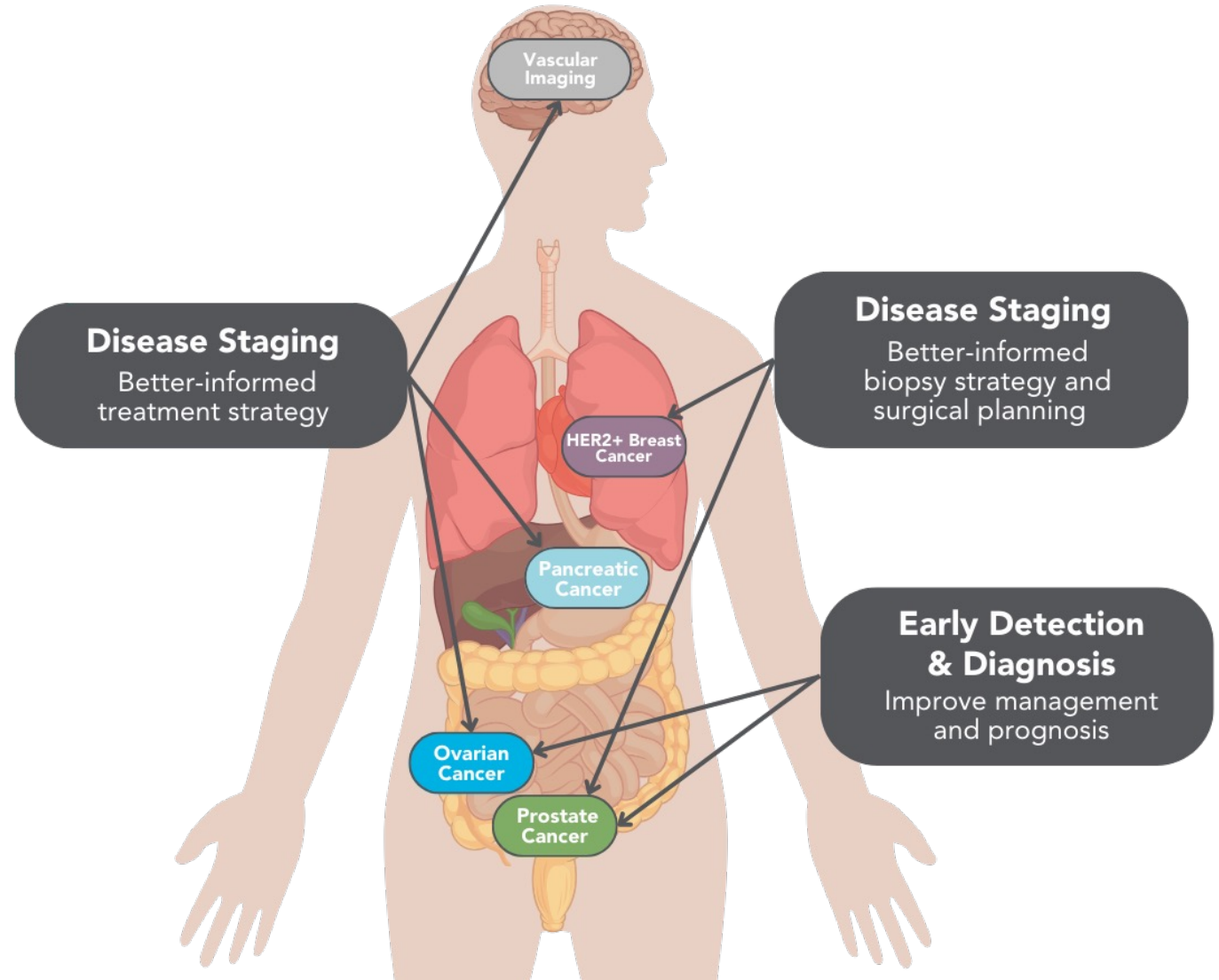
- In vivo PoC complete
- Mature project - Approaching IND-enabling studies

## Vascular Imaging Agent

- In Vivo PoC complete
- Mature project - Approaching IND-enabling studies

## Pancreatic Cancer Concept

- In vitro discovery underway
- Active partnership



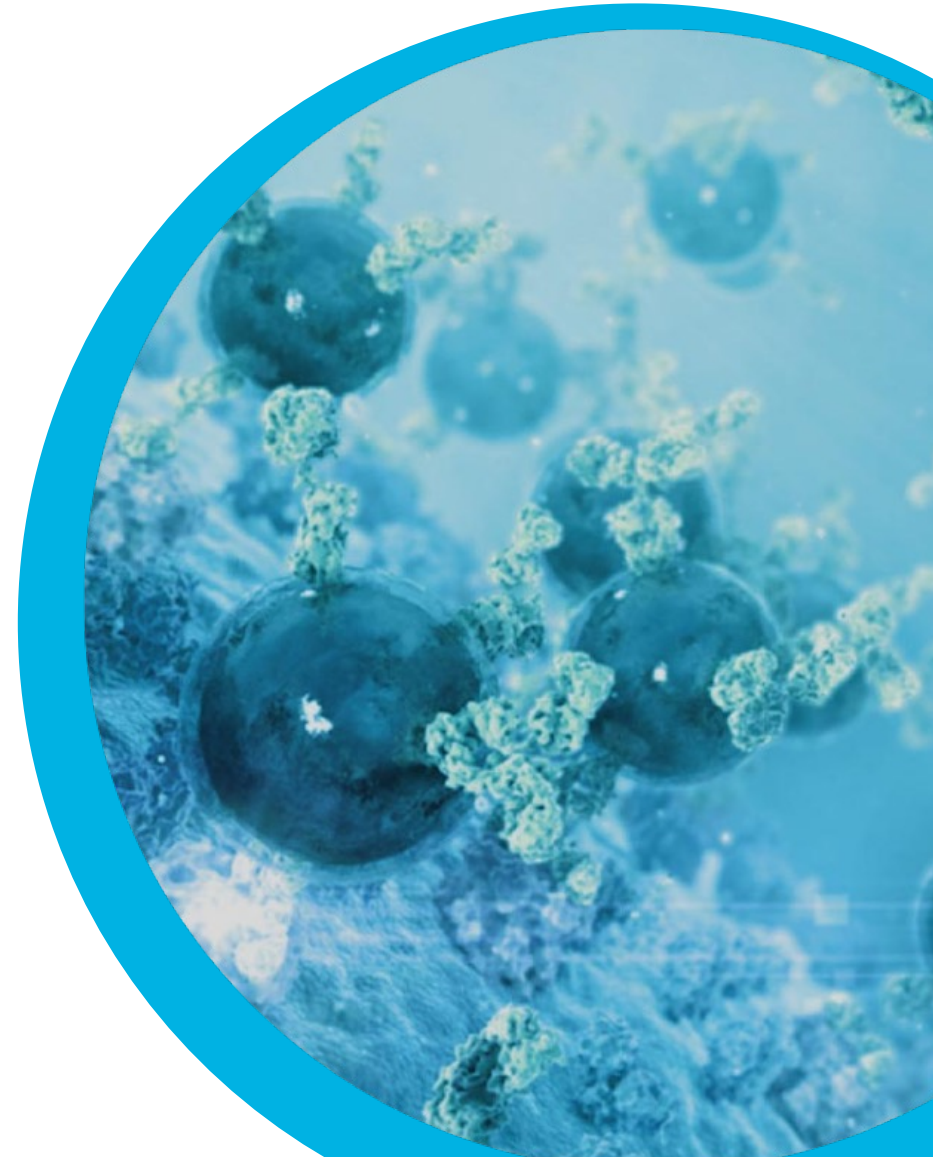
An abstract graphic in the background consisting of several overlapping circles and a series of parallel lines that intersect them, creating a dynamic, layered effect. The colors are various shades of blue and teal.

# Building Imagination's Business

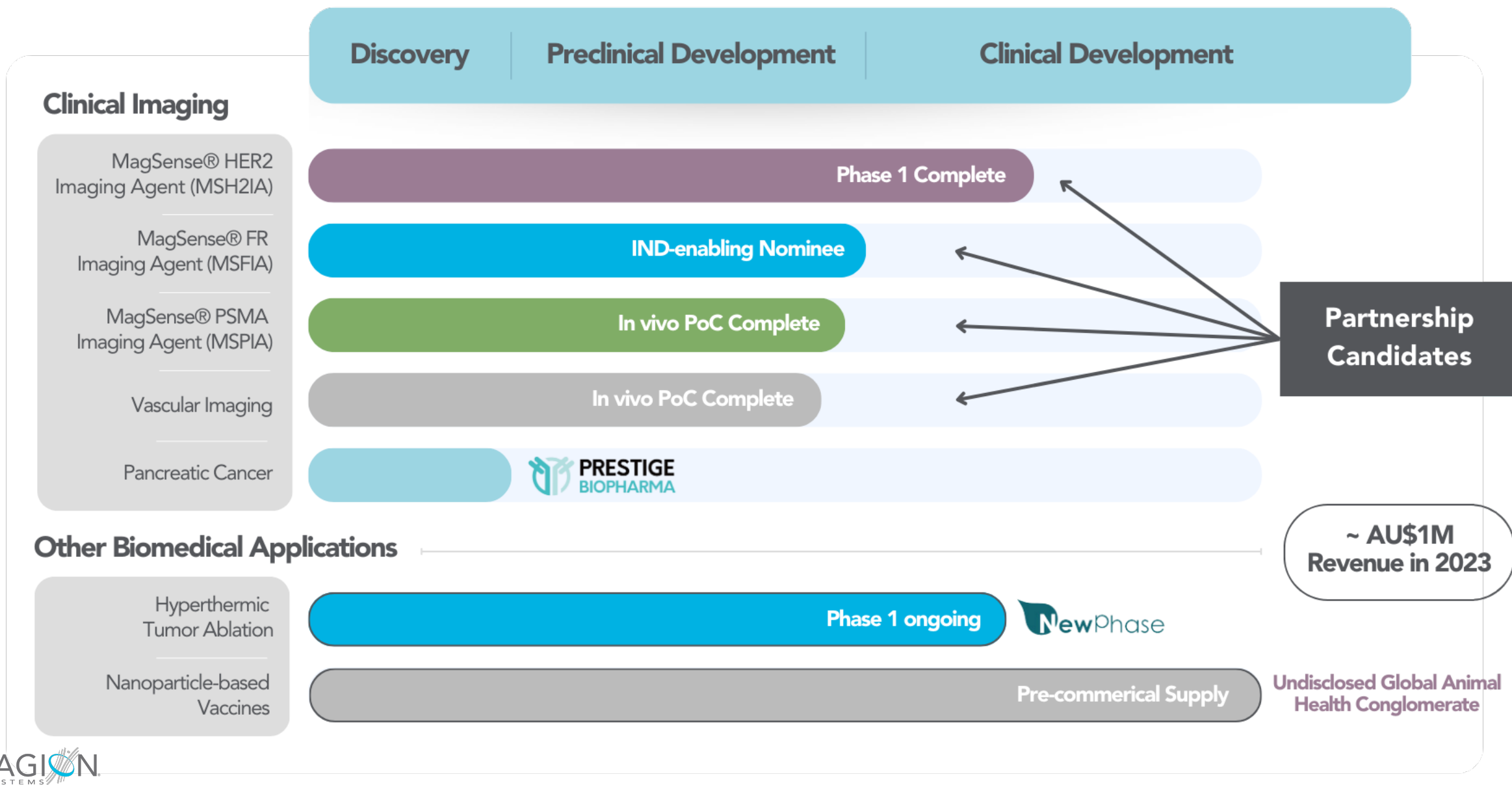


# Approaching MagSense® Partnerships

- **Niche-leading incumbents continue making attractive deals for differentiated clinical-stage assets**
  - Upfronts: <\$1M to >\$30M
  - Clinical and Regulatory Milestones
  - Sales Milestones & up to double-digit Royalties
- **MagSense® products are disruptive - enabling Molecular MRI**
  - Primary Diagnosis
  - Primary staging & treatment planning
  - Companion Diagnostics
- **1<sup>st</sup> collaboration candidate: MagSense® HER2 Imaging Agent**
  - >2M Women Diagnosed with Breast Cancer Annually
  - HER2+ patients constitute 20% of Global Breast Cancer population
  - \$100M - \$250M Addressable Market Opportunity



# SPIONs: Core of Capital-efficient Business Model



# Investment Highlights



## Key Initial Clinical Milestones Achieved

- MSH2IA safe and well tolerated in Phase I study
- Successful pre-IND with US FDA Q1:24 IND Submission



## MagSense®: Differentiated Molecular MRI Product Pipeline

- First 3 products address \$4-5B markets for non-invasive detection of cancers
- Reduces need to rely on invasive biopsies
- Earlier detection known to improve patient outcomes



## Imagion's SPION Technology Advancing Biomedical Applications

- Hyperthermic tumor ablation
- Nanoparticle-based vaccines
- Magnetic particle imaging



## Strong Leadership and Advisory Boards

- Talented and experienced leadership with strong track-record in lifesciences & drug development
- Multi-specialty Advisory Boards with collective expertise in oncology, medical imaging, nanotechnology

# Experienced Board & Management

Commercially focused team with deep industry & clinical experience



**ISAAC BRIGHT, MD**  
CHIEF EXECUTIVE OFFICER

- >20 years entrepreneur & VC investor in biotherapeutics, diagnostics, and medtech



**GEOFF HOLLIS**  
CFO & COSEC

- ASX experienced CFO with over 20 years as a Chartered Accountant



**MARIE ZHANG, PH.D.**  
VP RESEARCH & DEVELOPMENT

- Over 20 years in drug development
- Leadership in early stage and start-up founder



**ROBERT PROULX**  
NON-EXECUTIVE CHAIRMAN

- Over 25 years in life science & medical devices
- Product development & commercialization



**DAVID LUDVIGSON**  
NON-EXEC DIRECTOR

- Over 35 years in pharma, medical devices
- Corporate strategy, M&A, & financing



**MICHAEL HARSH**  
NON-EXEC DIRECTOR

- Former CTO of GE Healthcare
- Over 35 years in medical imaging product development



**MARK VAN ASTEN**  
NON-EXEC DIRECTOR

- Strong track record in diagnostics & healthcare
- Over 25 years commercializing diagnostic products



**JOVANKA NAUMOSKA**  
NON-EXEC DIRECTOR

- Attorney with over 20 years experience advising research organisations
- Expertise in commercialisation, regulatory compliance, governance & risk management



**DIANNE ANGUS**  
NON-EXEC DIRECTOR

- Over 20 years in Australian & US listed Biotechnology companies



Presented by:

**Isaac J. Bright, MD**

Chief Executive Officer

[Isaac.bright@imaginationbio.com](mailto:Isaac.bright@imaginationbio.com)

[imaginationbiosystems.com](http://imaginationbiosystems.com)

ASX:IBX