BARD1

LIFE SCIENCES LIMITED

Early cancer detection to save lives

COMPANY PRESENTATION

19 November 2018

DISCLAIMER

This presentation has been prepared by BARD1 Life Sciences Limited ("BARD1" or the "Company") based on information available to it as at the date of this presentation. This presentation contains general and background information about the Company's activities current as at the date of the presentation and should not be considered to be comprehensive or to comprise all the information that an investor should consider when making an investment decision and does not contain all information about the Company's assets and liabilities, financial position and performance, profits and losses, prospects, and the rights and liabilities attaching to the Company's securities necessary to make an investment decision. The information in this presentation should be read in conjunction with The Company's other periodic and continuous disclosure announcements lodged with the Australian Securities Exchange, available at www.asx.com.au. The information in this presentation is based on the Company's own information and estimates and has not been independently verified. The Company is not responsible for providing updated information and assumes no responsibility to do so. Any investment in the Company should be considered speculative and there is no guarantee that they will make a return on capital invested, that dividends would be paid, or that there will be an increase in the value of the investment in the future.

This presentation is not a prospectus, product disclosure document or other offering document under Australian law (and will not be lodged with ASIC) or any other law. This presentation is for information purposes only and should not be considered as, an offer or an invitation to acquire securities in the Company or any other financial products and neither this document nor any of its contents will form the basis of any contract or commitment. This presentation must not be disclosed to any other party and does not carry any right of publication. Neither this presentation nor any of its contents may be reproduced or used for any other purpose without the prior written consent of the company.

This presentation is not financial product, investment advice or a recommendation to acquire the Company's securities and has been prepared without taking into account the objectives, financial situation or needs of individuals. Before making an investment decision prospective investors should consider the appropriateness of the information having regard to their own objectives, financial situation and needs, and seek legal, taxation and financial advice appropriate to their jurisdiction and circumstances. The Company is not licensed to provide financial product advice in respect of its securities or any other financial products. Cooling off rights do not apply to the acquisition of the Company's securities. Each investor must make its own independent assessment of the Company before acquiring any securities in the Company.

Although reasonable care has been taken to ensure that the facts stated in this presentation are accurate and that the opinions expressed are fair and reasonable, no representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this presentation. To the maximum extent permitted by law, none of BARD1 its officers, directors, employees and agents, nor any other person, accepts any responsibility and liability for the content of this presentation including, without limitation, any liability arising from fault or negligence, for any loss arising from the use of or reliance on any of the information contained in this presentation or otherwise arising in connection with it. In particular, this presentation does not constitute, and shall not be relied upon as, a promise, representation, warranty or guarantee as to the past, present or the future performance of the Company.

The information presented in this presentation is subject to change without notice and BARD1 does not have any responsibility or obligation to inform you of any matter arising or coming to their notice, after the date of this presentation, which may affect any matter referred to in this presentation.

The distribution of this presentation may be restricted by law and you should observe any such restrictions.

This presentation contains "forward-looking statements" and "forward-looking information", including statements and forecasts relating to the Company. Often, but not always, forward-looking information can be identified by the use of words such as "plans", "expects", "is expected", "is expecting", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes", or variations (including negative variations) of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might", or "will" be taken, occur or be achieved. Such information is based on assumptions and judgements of management regarding future events and results. The purpose of forward-looking information is to provide the audience with information about management's expectations and plans. Readers are cautioned that forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company and/or its subsidiaries to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information.

Forward-looking information and statements are based on the reasonable assumptions, estimates, analysis and opinions of management made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors that management believes to be relevant and reasonable in the circumstances at the date such statements are made, but which may prove to be incorrect. The Company believes that the assumptions and expectations reflected in such forward-looking statements and information are reasonable. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. The Company does not undertake to update any forward-looking information or statements, except in accordance with applicable laws.

Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward looking statements or other forecast. To the full extent permitted by law, BARD1 and its directors, officers, employees, advisers, agents and intermediaries disclaim any obligation or undertaking to release any updates or revisions to information to reflect any change in any of the information contained in this presentation (including, but not limited to, any assumptions or expectations set out in the presentation).

BARD1 Life Sciences

Medtech company focused on developing and commercialising non-invasive diagnostics for early detection of cancer to save lives

FINANCIAL INFORMATION	
Ticker	ASX:BD1
Share Price (@16/11/18)	A$0.023
Ordinary Shares	828.66m
Market Capitalisation (@16/11/18)	A$19.06m
52w H/L Range	A$0.075-0.006
Cash (@30/9/18)	A$1.13m
Average Daily Volume (3mo)	47.53m

TOP SHAREHOLDERS (16/11/18)	# SHARES	% HOLDING
Irmgard Irminger-Finger	108,252,420	13.06%
Peter Gunzburg	29,835,004	3.60%
Tony Walker	26,501,626	3.20%
Universite de Geneve	12,500,000	1.51%
Top 20 Holders	**266,489,434**	**32.16%**
TOTAL	**828,662,398**	**100.00%**

SHARE PRICE PERFORMANCE

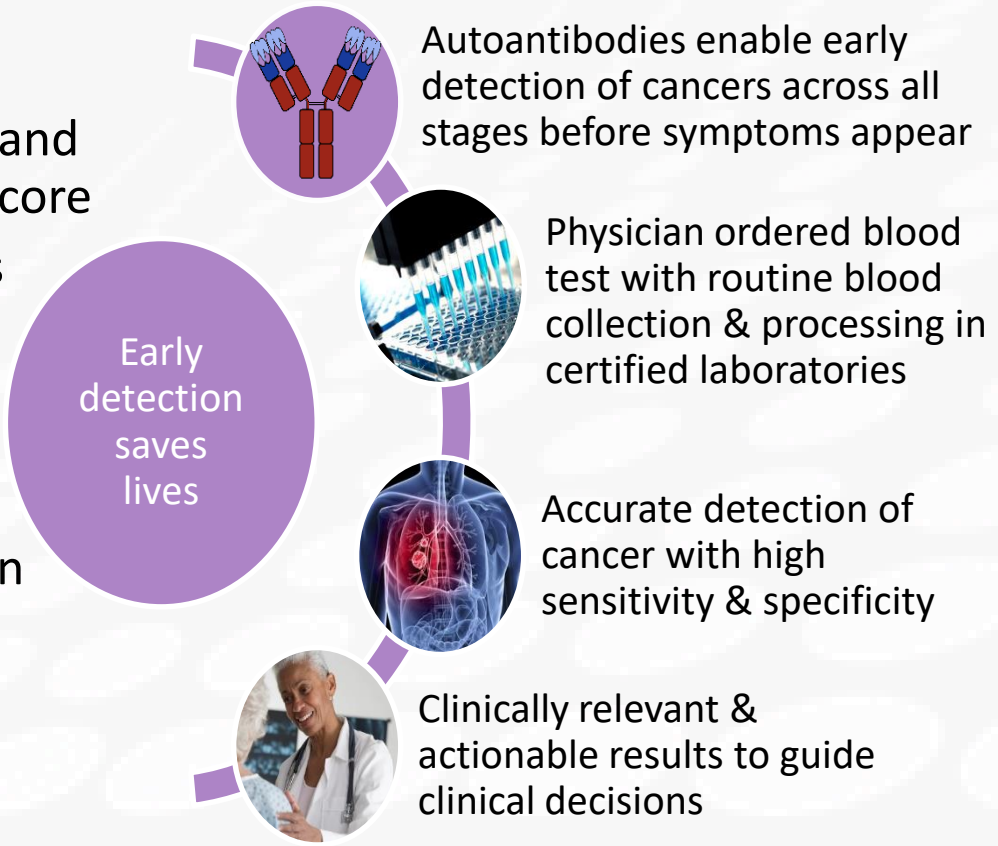
Investment Highlights

- Medtech company focused on developing non-invasive diagnostics for early detection of cancer to save lives
- Proprietary tumour marker platform with strong IP protecting biomarkers, methods and use
- Targeting unmet needs in burgeoning US$101B global cancer diagnostics market
- Case-control studies showing accuracy of BARD1 autoantibody panels for detection of breast, ovarian and lung cancers with high sensitivity & specificity
- Assay development underway to transfer, develop & validate BARD1 tests on Luminex® instrumentation
- Focus on commercializing BARD1-Ovarian and new BARD1-Breast cancer tests to take advantage of synergies in women with HBOC*
- Clinical studies expected to commence in 2H19 and market launch by 1H21
- Pipeline includes BARD1-Lung the world's deadliest cancer
- Exploring multiple partnering and corporate opportunities to deliver shareholder value
- Value-adding milestones and news flow expected in next 6-12 months

*Hereditary Breast and Ovarian Cancer (HBOC) syndrome

Behind BARD1's diagnostic success

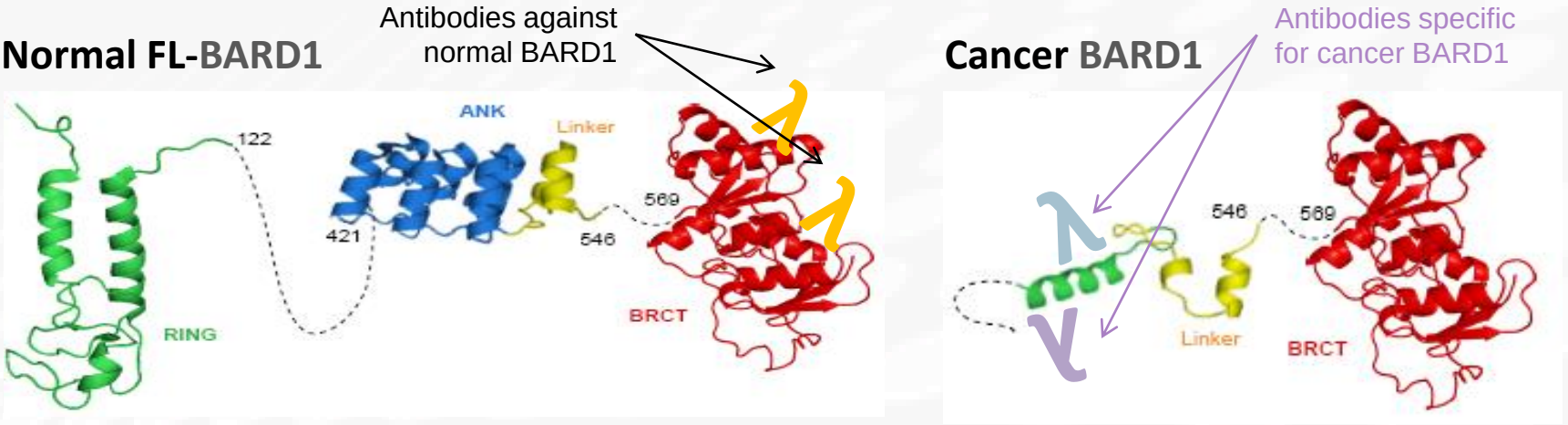
- Proprietary tumour marker platform and diagnostic approach
- BARD1 blood tests measure autoantibodies to BARD1 proteins and use an algorithm to give a cancer score
- Autoantibodies indicate the body's early immune response to cancer, present in early stages before symptoms appear
- Existing blood tests often detect tumour-associated antigens, high in late stages after symptoms appear
- Targeting unmet need for early detection of cancer
- Early detection enables earlier treatment, improves patient outcomes, save lives and reduces healthcare costs



BARD1
LIFE SCIENCES LIMITED

Proprietary BARD1 tumour marker platform

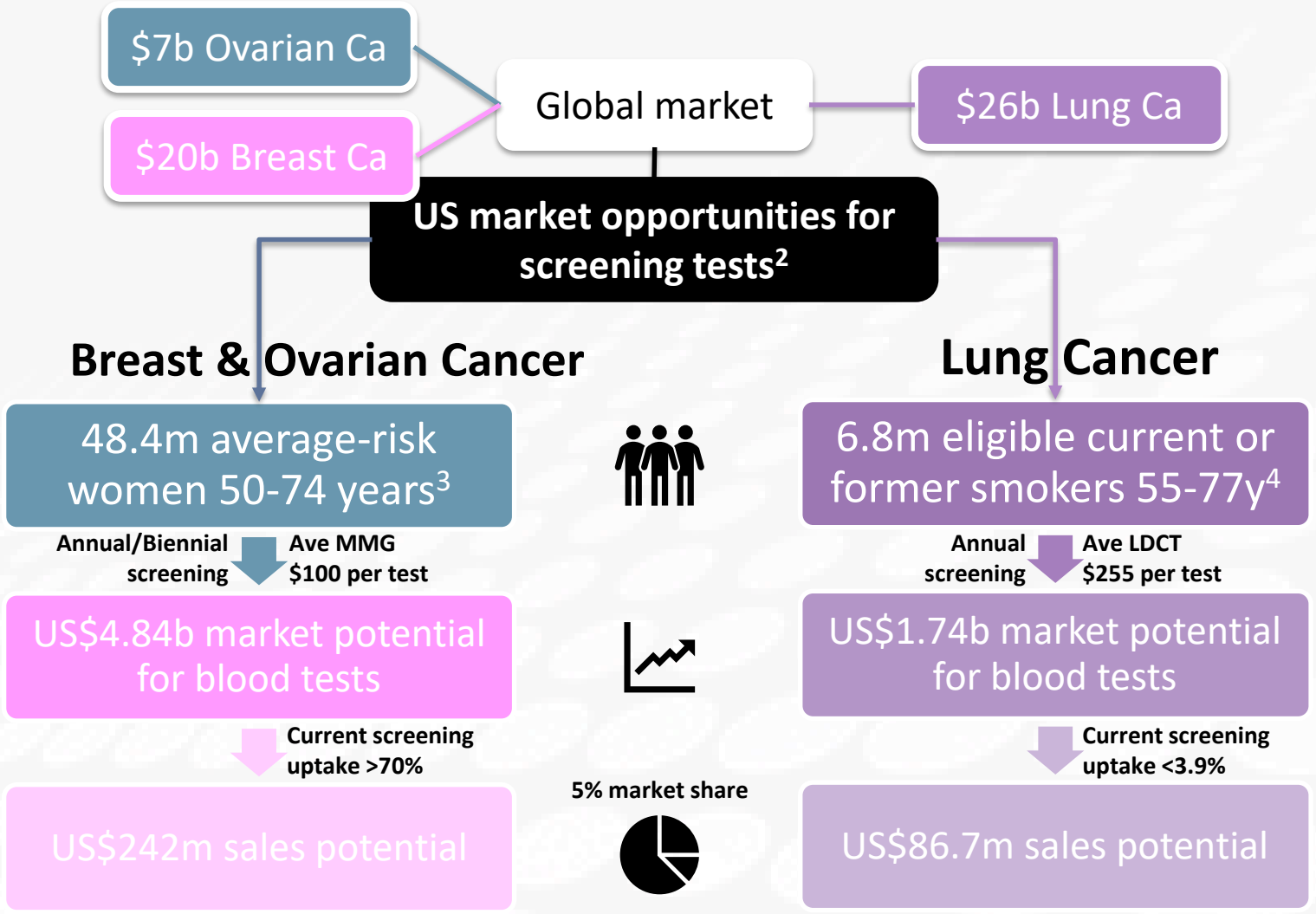
- Normal cells express **BARD1 protein** (FL) that functions as a *tumour suppressor* to prevent cancer
- Cancer cells express variant **BARD1 isoforms** that drive *tumour formation* and are correlated with cancer progression and poor prognosis
- BARD1 isoforms are immunogenic and induce **BARD1 autoantibodies** reflecting the early *immune response to cancer*



- **BARD1 platform** has potential applications across multiple cancers including ovarian, breast, lung, colorectal and prostate cancers
- **Strong IP** protecting biomarkers, methods and use

BARD1 LIFE SCIENCES LIMITED

Focused on unmet needs in Global Cancer Diagnostics Market of US$101b[1]



1. Transparency Market Research 2014; 2. Company estimates; 3. Statista 2017; 4. ACS 2017

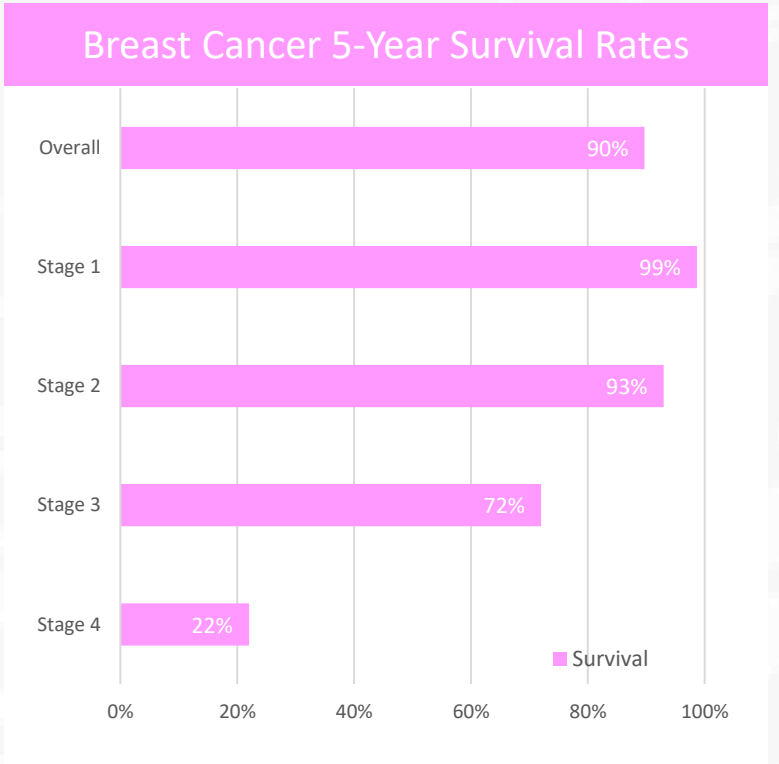
BARD1 LIFE SCIENCES LIMITED

Breast Cancer is the biggest cancer killer of women

- Breast Cancer is the **most common cancer in women** worldwide
  - World: 2.1m new cases & 627k deaths pa
  - US: 266k new cases & 41k deaths pa
- **Risk factors** include age >55 years (69%), family history (<15%), and BRCA1/2 mutations (5-10%)
- **Life-time risk**

Ave-risk	Family	BRCA1	BRCA2
12.4%	24%	72%	69%

- **Good overall 5-year survival** of 90% due to screening, awareness and treatments
- **Screening** recommended with mammograms in *average-risk asymptomatic women* aged 45+ years, annual MRI/ mammogram in *high-risk* women aged 30+
- **No blood test** approved for early detection



Source: https://www.cancer.org/cancer/breast-cancer/understanding-a-breast-cancer-diagnosis/breast-cancer-survival-rates.html

BARDI LIFE SCIENCES LIMITED

BARD1-Breast a world-first solution

Blood test in development for early detection of breast cancer

- **Measures** BARD1 autoantibodies in the blood to give a breast cancer score
- Breakthrough case-control study in 174 samples shows **86% accurate for early detection of breast cancer** in women across common subtypes and all stages with 70% sensitivity & 88% specificity
- **Accurately distinguishes malignant and benign lesions** with 85% sensitivity & 76% specificity enabling risk assessment of malignancy following a suspicious mammogram

Study	n (cancer:normal)	Model AUC	Test AUC	Sensitivity	Specificity
BC-001a (model)	123 (61:64)	0.94	0.86	70%	88%
BC-001b (benign)	110 (61:49)		0.84	85%	76%

AUC is the accuracy of the test; Sensitivity is the % of people with cancer that correctly test positive; Specificity is the % people without cancer that correctly test negative.

- **Same autoantibody test method and Luminex® instrumentation** as BARD1-Ovarian enabling fast development & parallel clinical testing
- Clinical studies expected to commence 2019 to evaluate clinical performance as a **screening test for early detection of breast cancer in average-risk asymptomatic women**
- Potential to detect breast cancer early, increase screening uptake, improve survival and reduce healthcare costs

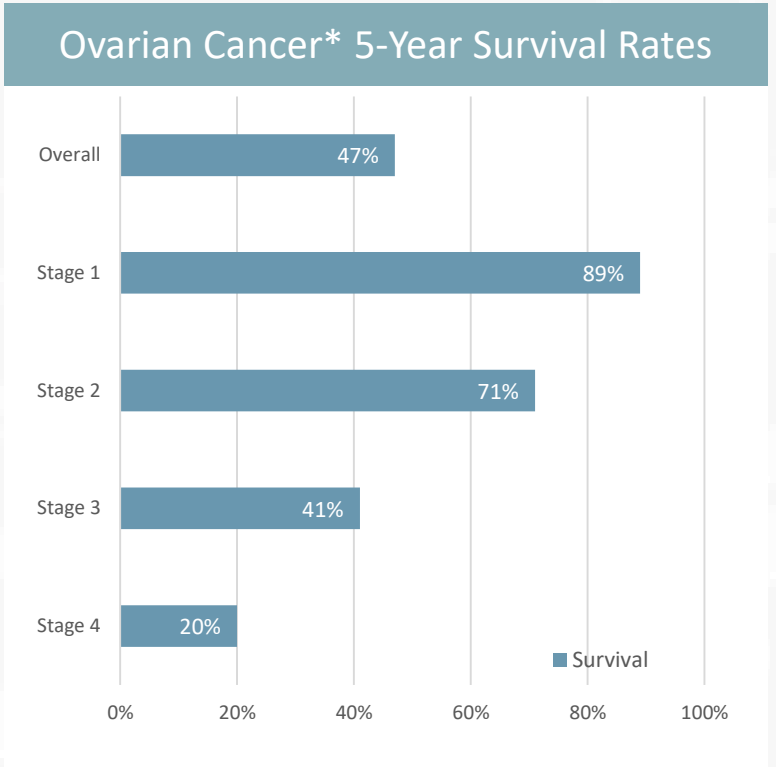
BARD1 Breast

Ovarian Cancer continues to devastate

- Ovarian Cancer is the **leading cause of gynecological cancer deaths**
  - World: 295k new cases & 185k deaths pa
  - US: 22k new cases & 14k deaths pa
- **Risk factors** include age >55 years (70%), family history (<10%), and BRCA1/2 mutations (5-10%)
- **Life-time risk**

Ave-risk	Family	BRCA1	BRCA2
1.3%	4-7%	35-70%	10-30%

- **Low overall 5-year survival** of 47% since 65% diagnosed at late-stage since no screening program
- **Early-detection saves lives** increasing survival to 89%
- **Screening** not recommended with TVUS or CA125 in *average-risk asymptomatic women,* whereas screening with TVUS and CA125 may be offered in *high-risk* women
- **No blood test** approved for early detection



*All Epithelial subtypes (90% of all cases)
Source: https://onlinelibrary.wiley.com/doi/full/10.3322/caac.21456

BARD1 LIFE SCIENCES LIMITED

BARD1-Ovarian changes the landscape

Blood test in development for early detection of ovarian cancer

- **Measures** BARD1 autoantibodies and CA125 in the blood to give an ovarian cancer score
- **7 case-control studies** in 743 samples show excellent diagnostic accuracy of AUC 0.95 for early detection of ovarian cancer across all stages
- **Industry leading results in average-risk women** with addition of CA125 biomarker achieving 88% sensitivity & 93% specificity
- **97% accurate in high-risk women** with family history of breast/ovarian cancer or carrying *BRCA1/2* mutations achieving 89% sensitivity & 97% specificity

Study	n (cancer:normal)	Model AUC	Test AUC	Sensitivity	Specificity
OC-CA125	400 (200:200)	0.98	0.95	88%	93%
OC-R001	261 (127:134)	0.99	0.97	89%	97%

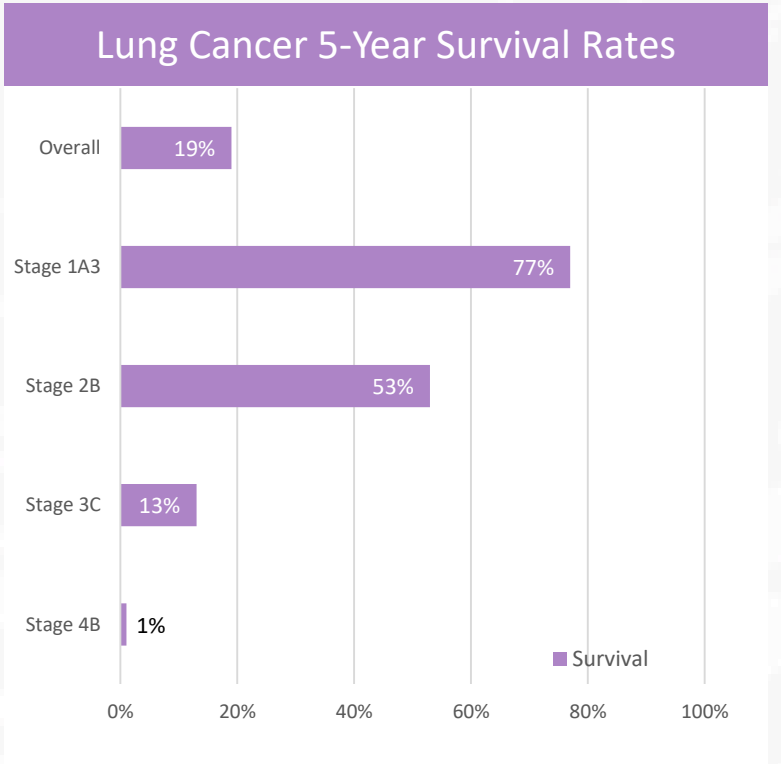
AUC is the accuracy of the test; Sensitivity is the % of people with cancer that correctly test positive; Specificity is the % people without cancer that correctly test negative.

- Assay development by Thermo Fisher underway to transfer test to **Luminex® instrumentation**
- Clinical studies expected to commence 2019 to evaluate clinical performance as a **monitoring test for early detection of ovarian cancer in high-risk women with HBOC**
- Potential to detect ovarian cancer early, save women's lives and avoid unnecessary surgery

BARD1 Ovarian

Lung Cancer remains the biggest cancer killer

- Lung Cancer is the **leading cause of cancer deaths** worldwide
  - World: 2.1m new cases & 1.8m deaths pa
  - US: 234k new cases & 154k deaths pa
- **Risk factors** include age >55 years (91%) and smoking (>80%)
- **Poor overall 5-year survival** of 18.6% since over 57% diagnosed at late-stage
- **Early-detection saves lives** increasing survival to over 77%
- **Screening** recommended with annual CT scan in *high-risk asymptomatic adults aged 55-80 years with >30 pack-year smoking history* (USPSTF 2014)
- **No blood test** approved for early detection



Source: https://www.cancer.org/cancer/non-small-cell-lung-cancer/detection-diagnosis-staging/survival-rates.html

BARDI LIFE SCIENCES LIMITED

BARD1-Lung test

Blood test in development for early detection of lung cancer

- **Measures** BARD1 autoantibodies in the blood to give a lung cancer score
- **2 case-control studies** in 628 samples shows high accuracy for early detection of lung cancer with up to 80% sensitivity and 77% specificity, and promising results for gender-specific algorithms with model AUC=0.91 in males and AUC-0.89 in females

Study	n (cancer:normal)	Model AUC	Test AUC	Sensitivity	Specificity
LC-POC	187 (94:93)	0.96	0.86	80%	77%
LC-600	628 (395:233)	0.85	0.80	80%	68%

AUC is the accuracy of the test; Sensitivity is the % of people with cancer that correctly test positive; Specificity is the % people without cancer that correctly test negative.

- **Publication** of POC results and diagnostic method in peer-reviewed journal *PloS ONE*
- **Assay development** planned for 2H19 to optimise and validate test on Luminex® instrumentation using additional biomarkers & gender-specific algorithms
- Clinical studies required to evaluate clinical performance as a **screening test for early detection of lung cancer in high-risk asymptomatic individuals**
- Potential to detect lung cancer early, save lives and reduce healthcare costs

BARD1 Lung

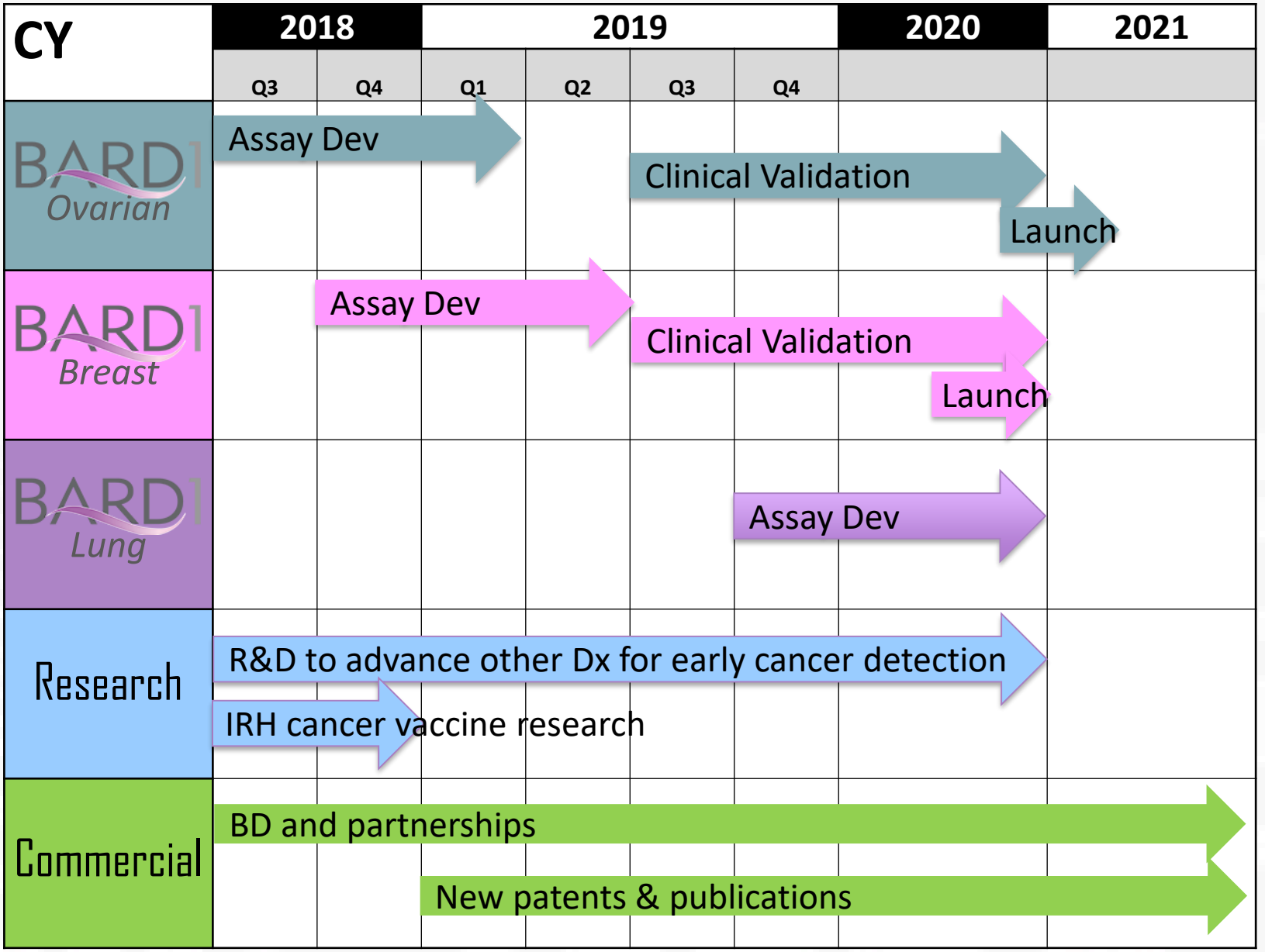
BARD1-Vaccine

Exploratory research program for a potential cancer vaccine

- **OBJECTIVE:** POC study to evaluate BARD1 peptide vaccine formulations for cancer prevention and/or treatment in murine cancer models to assess in vivo effectiveness for reducing tumour size, inhibiting tumour growth and/or inducing an effective immune response
- **PRELIMINARY RESULTS:**
  - Malignant mesothelioma: Encouraging initial results showing delayed tumour growth
  - Lung and colon cancers: Analysis incomplete
- **ONGOING ANALYSIS:**
  - Breast cancer
  - Tumour inflammatory cell profile
- **FINAL RESULTS:** Expected in Dec-18
- **FUTURE RESEARCH:**
  - Determine methods to improve immune response
  - Determine effectiveness of BARD1-Vaccine in combination with therapies

BARD1 Vaccine

BARD1 Key Milestones



Timelines subject to change according to clinical and regulatory advice

BARD1 LIFE SCIENCES LIMITED

Commercialisation Strategy

Research	Assay Development	Clinical Validation	Marketing/ Approval
✓**POC** studies completed validating biomarker platform in breast, ovarian& lung cancers ✓Multiple **case-control studies** completed demonstrating high sensitivity & specificity for early detection of cancer	✓**Product development** underway to standardise BARD1 autoantibody test on Luminex® platform	• **Clinical testing** planned for 2H19 to demonstrate clinical sensitivity and specificity of both BARD1-Breast and BARD1-Ovarian in patient populations	• **Product launch** of BARD1-Breast/ Ovarian anticipated by 1H21 • **Market** first as Laboratory Developed Test (LDT) to achieve early revenues and gain real-world product validation • **Secure** regulatory approval later as In Vitro Diagnostic (IVD) in US, EU and AU to drive clinical adoption • **Commercialise** through partnering LDTs with certified laboratories and IVDs with key distributors or trade sale

BARD1 LIFE SCIENCES LIMITED

BARD1's Intellectual Property Portfolio

- 5 patent families covering various BARD1 DNA & protein sequences, methods of diagnosis & treatment, and use in multiple cancers

Patent Family 5	Title	Granted 10	Pending 19	Expiry
PCT/FR01/02731	Truncated BARD1 protein and its diagnostic and therapeutic uses	US, JP		2021
PCT/IB2011/053635	BARD1 isoforms in lung and colorectal cancer and use thereof	US, JP, JP (div), IL, CN, CN div, AU	US (divisional), EP, CA, BR, SG, HK	2031*
PCT/IB2011/054194	Kits for detecting breast or ovarian cancer in a body fluid sample and use thereof	US	EP	2031*
PCT/EP2014/073834	Lung Cancer Diagnosis		US, EP, CA, JP, IL, CN, AU, SG, KR, HK	2034*
EP14002398.7	Novel non-coding RNA, cancer target and compounds for cancer treatment		US	2035*

*Plus any extension of term in the US due to prosecution delay

Significant Achievements 2018

Date	Announcements
9/1/18	✓ OC-400 results showing 82% sensitivity and 79% specificity for detection of ovarian cancer
2/2/18	✓ JP Divisional Patent granted providing broader protection for lung & colorectal cancer
6/3/18	✓ OC-400V results showing 89% sensitivity and 82% specificity in independent test set
21/3/18	✓ IL Patent granted covering BARD1-Lung
22/3/18	✓ Capital Raising of $1.3m to institutional and professional investors
18/5/18	✓ Contract Development Agreement signed with TF to transfer research assay to Luminex® instrumentation
19/6/18	✓ OC-125 results with addition of CA125 showing 88% sensitivity and 93% specificity in average-risk women
12/7/18	✓ US Patent granted covering BARD1-Ovarian & BARD1-Breast
6/9/18	✓ OC-R001 results showing 89% sensitivity and 97% specificity in high-risk women
23/10/18	✓ NEW BC-001 results showing high accuracy of BARD1-Breast for detection of breast cancer with 70% sensitivity and 88% specificity
24/10/18	✓ Chinese Divisional Patent granted covering BARD1-Lung

Expected news flow in next 12 months

BARD1-Ovarian

- Complete Assay Development and technical validation on Luminex® instrumentation – 1Q19
- Commence clinical studies for BARD1-Breast and BARD1-Ovarian for early detection of breast and ovarian cancers – 2H19

Pipeline

- ✓Results from research studies for other cancers (breast) – 4Q18
- Results from BARD1-Vaccine mouse studies – 4Q18
- Initiate further product development for BARD1-Lung – 2H19

Commercial

- Additional patents and publications – 1H19
- Progress corporate and partnering discussions – 1H19
- Strengthen Board and management – 1H19

Peer Valuations| BD1 has significant growth potential

NASDAQ:VRML US$37.7m
FDA-cleared IVDs OVA1® & Overa® for risk assessment of ovarian cancer with up to 92% sens & 69% spec.

ASX:BD1 A$19.06m
Development-stage blood tests for early detection of breast, ovarian and lung cancers.

AIM:ONC £59.5
Marketed LDT 2009 & CE-IVD 2017 *Early*CDT®-Lung with 41% sens & 93% spec. Jan-18 license with Genostics for China 8-12.5% royalties + £10m equity investment @49% premium. May-18 launch *Early*CDT-Liver.

XETRA:ECX €76.0
FDA-approved & CE-IVD mark Epi proColon® for detection of colorectal cancer in US, EU & China. Jul-17 failed takeover offer by Summit Hero Holding for shares @49.2% premium to 3mo VWAP.

ASX:RHY A$15.1m
Development-stage ColoSTAT™ blood test for early detection of colorectal cancer.

ASX:SDX A$22.5m
Marketed Class 1 IVD for detection of hTERT in urothelial cells (bladder cancer) in US, EU & AU.

Yahoo Finance 16/11/18

Leadership Team

PETER GUNZBURG BCom | Chairman

Public company director, stockbroker & technology investor, with 20+ years corporate advisory, capital raising, transaction & business management experience. Currently Chair of the Institute for Respiratory Health at UWA. Previously Director of Resolute Ltd, Australian Stock Exchange Ltd, Eyres Reed Ltd, CIBC World Markets Australia Ltd and Fleetwood Corporation Ltd.

DR IRMGARD IRMINGER-FINGER PhD | Executive Director & Chief Scientific Officer

Founder and co-inventor of BARD1 and its technology, European Woman Entrepreneur Award finalist 2014, and internationally recognised expert in tumour biology with over 100 publications, several patents, and multiple international collaborations and keynote conference presentations. Currently Adjunct Prof at UWA. Former Privat Docent at UNIGE, Executive Director and founder of BARD1AG SA.

BRETT MONTGOMERY | Non-Executive Director

Public company director with extensive experience in leadership, mining company management, corporate governance and risk management. Currently Non-Executive Director of Tanami Gold NL. Previously Managing Director Kalimantan Gold NL, and Director of Magnum Gas and Power Ltd, Grants Patch Mining Ltd and EZA Corporation Ltd.

DR LEEARNE HINCH BVMS MBA | Chief Executive Officer

Accomplished public company CEO and biotechnology consultant with extensive leadership, strategy, fundraising, operational, business development and commercial experience across drugs, devices, diagnostics and animal health. Currently MD of commercialisation advisory Ingeneus Solutions Pty Ltd and former CEO Eustralis Pharmaceuticals Ltd, CEO Immuron Ltd, COO OBJ Ltd, GM Holista CollTech Ltd, and CMO Chemeq Ltd.

BARD1 LIFE SCIENCES LIMITED

Investment Summary

Large Markets	Early cancer diagnostics targeting unmet needs in US$101B global market
Compelling Results	Industry leading results for BARD1-Breast & BARD1-Ovarian for early detection of breast & ovarian cancers with high sensitivity & specificity
Development Underway	BARD1-Ovarian development & validation underway for early detection of ovarian cancer, with expected launch by 2021
Diagnostic Advantages	Potential to enable earlier treatment, improve patient outcomes, save lives and reduce healthcare costs
Future Pipeline	Pipeline of cancer diagnostics for early detection of other cancers - BARD1-Breast and BARD1-Lung
Solid IP	Granted & pending patents covering biomarkers, methods and uses
Strong News Flow	Multiple value-adding milestones expected over next 6 - 12 months

Contacts

BARD1 Life Sciences Ltd
Ground, Tempo Building, 431 Roberts Rd
Subiaco WA 6008 Australia
P +61 8 9381 9550 | **E** info@bard1.com | **W** www.bard1.com

Peter Gunzburg | Chairman
E peter@bard1.com

Dr Leearne Hinch | CEO
E leearne@bard1.com
M 0400414418