Genetic Signatures

Transforming Molecular Diagnostics

Bell Potter Healthcare Conference

November 2022

Disclaimer

This presentation has been prepared by Genetic Signatures Limited ACN 095 913 205 (the Company or GSS) and approved by the Board of Directors for release. It comprises written materials/slides for a verbal presentation concerning the Company and should be read in that context. This presentation is proprietary to GSS. It may not be reproduced, disseminated, quoted or referred to, in whole or in part, without express consent of GSS.

No representation or warranty, express or implied, is or will be made in relation to, and no responsibility or liability (whether for negligence, under statute or otherwise) is or will be accepted by the Company or by any of its officers, directors, shareholders, employees or advisers as to or in relation to the accuracy or completeness of the information, statements, opinions or matters (express or implied) arising out of, contained in or derived from this presentation or any omission from this presentation or of any other written or oral information or opinions provided now or in the future to any interested party or its advisers. In particular, no representation or warranty is given as to the achievement or reasonableness of any plans, future projections, management targets, prospects or returns and nothing in this presentation is or should be relied upon as a promise or representation as to the future.

The Company expressly disclaims all liability for any loss or damage of whatsoever kind (whether foreseeable or not) which may arise from any person acting on any information and opinions relating to the Company contained in this presentation or any information which is made available in connection with any further enquiries, notwithstanding any negligence, default or lack of care. In furnishing this presentation, the Company undertakes no obligation to provide any additional information.

Subject to any continuing obligation under applicable law or relevant listing rules of the ASX, the Company disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements in these materials to reflect any change in expectations in relation to any forward-looking statements or any change in events, conditions or circumstances on which any statement is based. Nothing in these materials shall under any circumstances create an implication that there has been no change in the affairs of the Company since the date of the presentation.

This presentation is for information purposes only and does not constitute or form part of any offer or invitation to acquire, sell or otherwise dispose of, or issue, or any solicitation of any offer to sell or otherwise dispose of, purchase or subscribe for, any securities, nor does it constitute investment advice, nor shall it or any part of it nor the fact of its distribution form the basis of, or be relied on in connection with, any or contract or investment decision. Without limiting the foregoing, this presentation does not constitute an offer to sell, or a solicitation of an offer to buy, any securities in the United States. The securities of Genetic Signatures have not been, and will not be, registered under the U.S. Securities Act of 1933, as amended (Securities Act) or the securities laws of any state or other jurisdiction of the United States, and may not be offered or sold in the United States except in compliance with the registration requirements of the Securities Act and any other applicable securities laws or pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and any other applicable securities laws.

The receipt of this presentation by any person and any information contained herein or subsequently communicated to any person is not to be taken as constituting the giving of investment advice by the Company or any other person to any such person. No such person should expect the Company or any of its officers, directors, shareholders, employees or advisers to owe it any duties or responsibilities and should take its own professional advice. The Recipient must rely solely on its own knowledge, investigation, judgement and assessment of the matters which are the subject of this presentation and to satisfy itself as to the accuracy and completeness

Investment highlights

- **Proprietary 3base® technology platform** that provides a revolutionary approach for molecular diagnostics
- **Dramatically simplifies multiple pathogen testing** from a single sample (multiplexing)
  - More informative – detect related pathogens/genes using fewer tests;
  - Simpler – fewer reagents with better matched, ideal reaction conditions.
- **Strong commercial adoption** in Australian market – expanding into European and US markets
  - 4 Diagnostic Test Kits cleared in one or more markets – 5 new kits completing development;
  - Strong continued revenue growth – FY22 revenue A$35.4 million (+25% yoy), cash flow positive ($6.7M) and profitable ($3.1M).
- **Multiple drivers for growth** – funded from anticipated future cash flow and existing balance sheet
  - Commercial expansion – into large international markets (Europe and US);
  - Product expansion – multiple new products completing development or registration;
  - Instrument expansion – embed 3base® technology in high-volume customers sites.

Company Snapshot

Financial information

Share price (4-Nov-22)	A$0.76
Shares on issue	143.4m
Market capitalisation	**A$108.9m**
Cash (30-Sep-22)	A$32.4m
Debt (30-Sep-22)	Nil
Enterprise value	**A$76.5m**

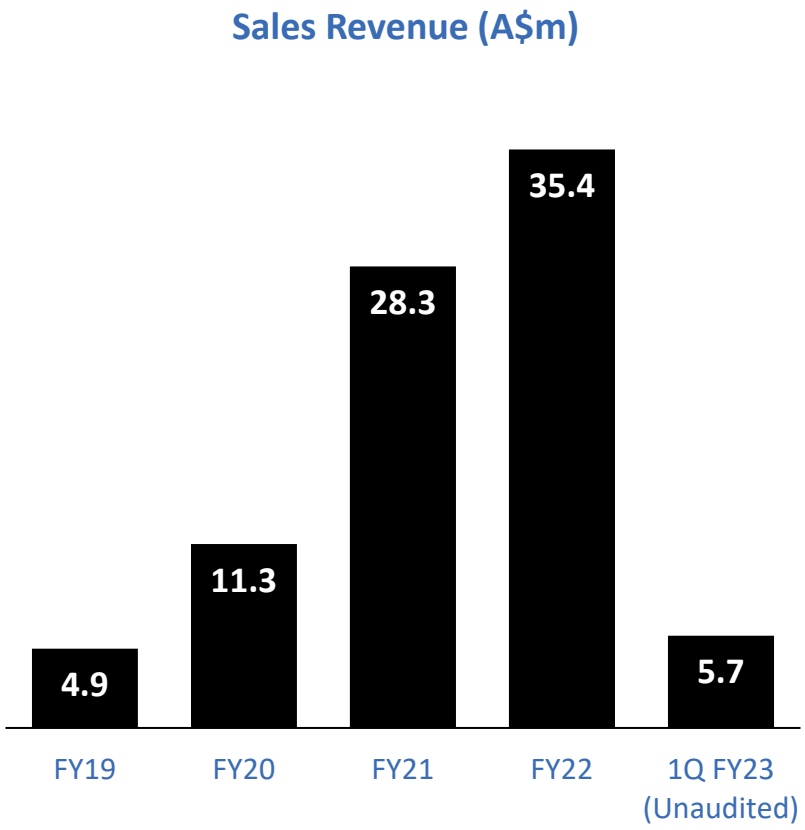
Top shareholders %

Asia Union (Chris Abbott private investment)	26.2%
Perennial Value Management	15.0%
Fidelity International	6.9%
Directors & management	3.0%

Research reports

	Target price
MST Access (28-Oct-22)	$1.45
Bell Potter (27-Oct-22)	$0.90

Track record of continued, strong revenue growth



- **Q1 FY23 sales up 16% from preceding quarter**
  - FY22 sales revenue of $35.4 million (+25% yoy, 89% 4yr CAGR)
- **Growing contribution from international sales**
  - Leveraging experience in Australian market;
  - European orders for non-Covid Syndromic Kits;
  - Significant US contributions to come once FDA clearance secured.
- **Strong demand for SARS-CoV-2 tests during FY21 & FY22**
  - Scale-back of molecular testing programs;
  - Growing contribution from other *EasyScreen*™ Kits;
  - Shifting from COVID only testing to Syndromic Respiratory.
- **Successful strategy of targeting high-volume customer groups**
  - High-throughput labs
  - Multi-hospital groups
  - Private pathology chains
  - Government-led programs

Financial Summary – Cashflow

A'000s	1Q FY23
Receipts from customers	7,848
Payments to suppliers and employees	(10,221)
Other	5
Net operating cashflow	**(2,368)**
Payment for plant & equipment	(840)
Payment for intangibles	(1,246)
Net investing cashflow	**(2,086)**
Principal elements of lease payments	(32)
Net financing cashflow	**(32)**
Net increase in cash and cash equivalents	**(4,486)**
Opening cash and cash equivalents	36,897
Effects of exchange rate changes on cash	8
Closing cash and cash equivalents	**32,419**

Planned investment in growth opportunities

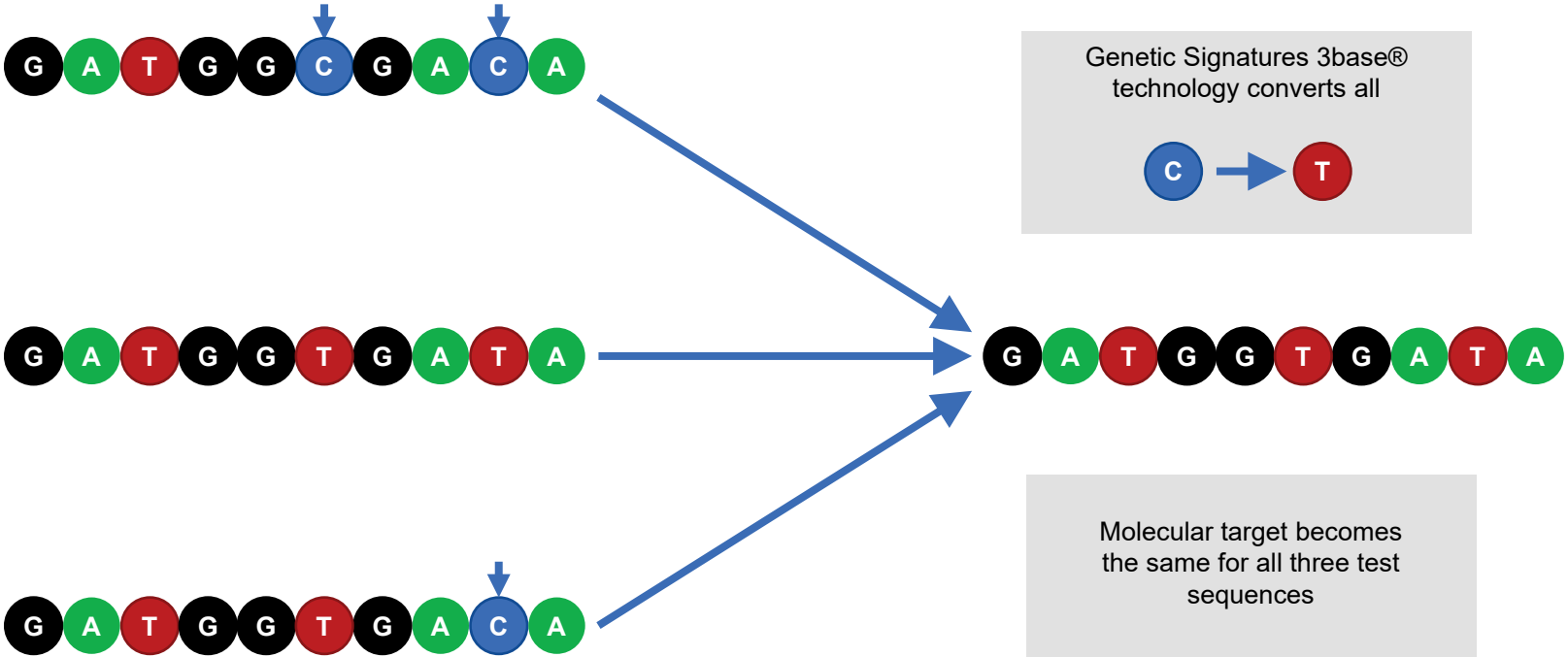
Funded from existing cash and anticipated future cash flows:

- International markets;
- New products;
- Regulatory clearances;
- Product launches;
- Internal capabilities (clinical, regulatory);
- Technology improvements;
- Sample-to-result instrument

3base® - a revolution in molecular diagnostics

- **Molecular diagnostic tests are based on DNA/RNA sequences**
  - DNA/RNA is unique to each organism.
- **Molecular diagnostic tests are recognised as the 'gold standard'**
  - Precisely targeted and highly specific – PCR tests;
  - Can be less effective when:
    - Need to detect multiple pathogens or genes;
    - New strains or subtypes of pathogens emerge.
- **Molecular diagnostic tests are often multiplexed**
  - Multiplexing refers to conducting multiple tests simultaneously
- **Genetic Signatures 3base®** makes multiplexing easier:
  - **More informative** – detect related pathogens/genes using fewer tests;
  - **Simpler** – fewer reagents with better matched, reaction conditions.

How 3base® simplifies molecular targets



* Human Papilloma virus sequences

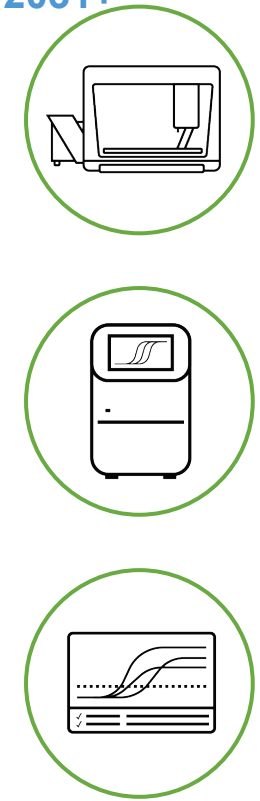
How 3base® tests are performed

Proprietary method - patented until 2031+

1. Extraction and Conversion
- *natural 4 bases to 3base®*

2. DNA Amplification (PCR)
- *uses 3base® DNA*

3. Detection (primers & probes)
- *uses 3base® DNA*



Benefits

- Rapid
- High throughput
- Informative
- Sensitive
- Specific
- Low manual involvement
- Reduced contamination risk

Equipment

- Run on standard equipment.
- Genetic Signatures' instruments further automate the process;
  - increase throughput
  - reduce labour.

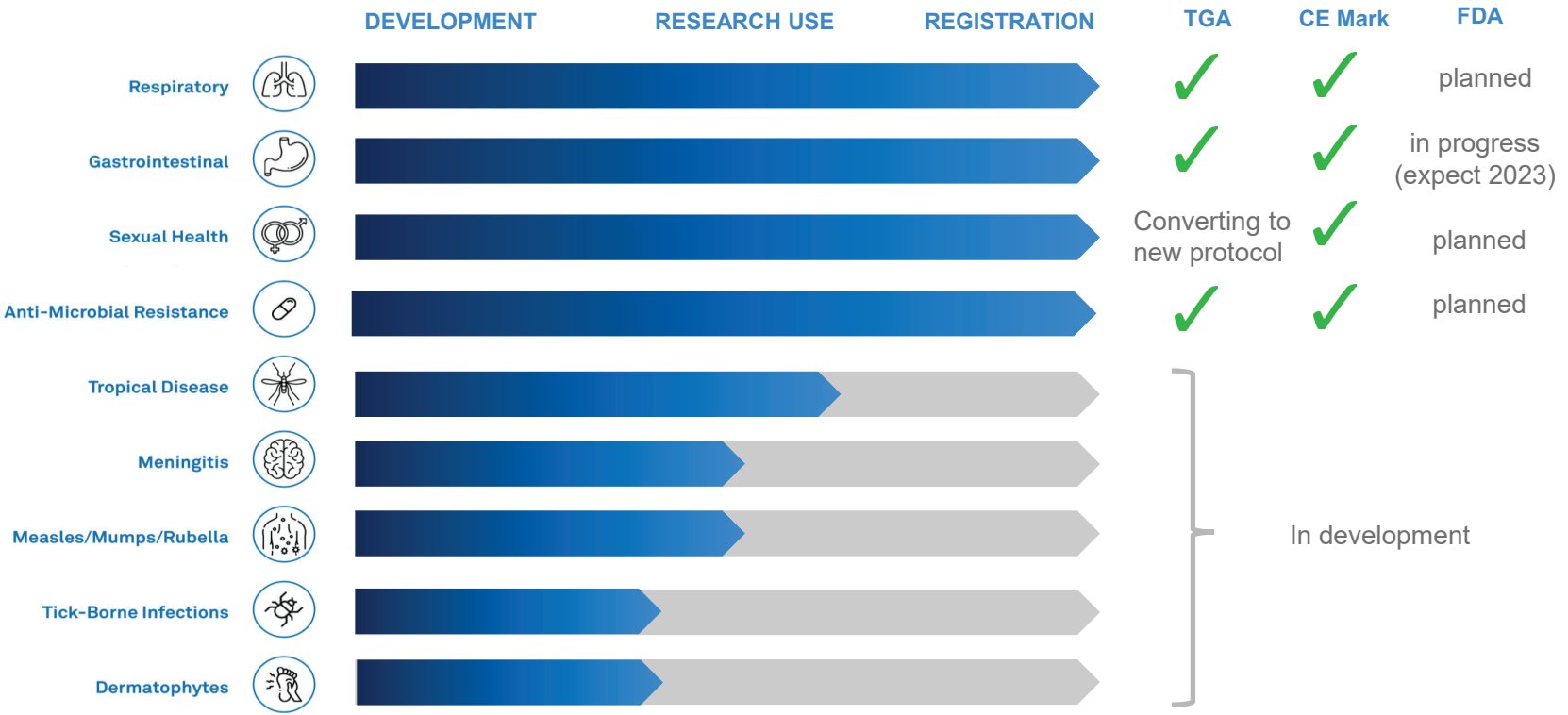
3base® simplifies Syndromic Testing – *EasyScreen*™ Kits

- **Syndromic testing:** simultaneously test for multiple pathogens that all can cause the same signs and symptoms
  - **Respiratory infections**: cough, runny nose, sore throat, headache, breathlessness;
  - **Gastrointestinal infections**: nausea, diarrhea, vomiting, abdominal cramps, fever.

- **Syndromic testing**
  - allows single test to determine the potential cause of a disorder;
  - avoids having to order separate tests for each possible pathogen.

- **Genetic Signatures' *EasyScreen*™ is ideal for Syndromic Testing**
  - Tests for over 100 different types of pathogens;
  - Able to detects variants (i.e. different strains or subtypes);
  - Combine tests to create *EasyScreen*™ Syndromic Detection Test Kits;
  - Detect >20 different pathogens from a single sample.

Robust pipeline with multiple products cleared for sale



Enteric Protozoan kit will provide entry to North America

North America accounts for 40% of the global molecular diagnostics market

- **High need for Enteric Protozoan Kit**
  - 5.5 million tests conducted in the US pa;
  - Primarily culture/microscopy: slow, labour intensive, unreliable;
  - Detects leading protozoan infections;
- **Enteric Protozoan Screening Kit**
  - Completed recruitment for 1,500 subject clinical trial;
  - Targeting 510(k) submission in Q4 CY2022;
  - First *EasyScreen*™ product for US;
  - Reimbursement code in place (CPT 87506 US$262.99).
- **US Market preparation activities underway**
  - KOL webinars;
  - Sales & marketing presence in US;
  - Warehousing facility in Los Angeles;
  - Initial focus on 30 high-throughput, centralised labs.
- **First 3base® product for the US**
  - Regulatory dossier relevant for other *EasyScreen*™ products.

Recent Events

- **US FDA clinical trial recruitment completed**
  - Targeting 4Q CY2022 application for clearance
- **3base® kit for antimicrobial resistance shows high detection rate**
  - Independent study[1] showed excellent biological performance for the 5 most common carbapenemases
  - WHO has declared AMR as one of the top 10 global public health threats facing humanity > 5m deaths pa[2]
- **GSS commences commercial sales in Western Australia**
  - Two new sites trialling respiratory & gastrointestinal targets; first sales into WA
- ***EasyScreen*™ Enteric Protozoan Detection Kit - Health Canada registration**
  - Canadian market ~2.5% of world IVD market
  - 3rd *EasyScreen*™ Detection Kit registered

[1] Gonzales, C et al, (2022), *Diagnostics* **2022**, *12*(9), 2223; **https://doi.org/10.3390/diagnostics12092223**
[2] Antimicrobial Resistance Collaborators (2022), The Lancet: https://doi.org/10.1016/ S0140-6736(21)02724-0

Growth initiatives

- **Leverage experience in Australian market to grow international sales**
  - Europe – drive adoption of other 3base® products;
  - US – build 3base® franchise once Protozoan Detection Kit is cleared.
- **Build and expand portfolio of commercially-available *EasyScreen*™ products**
  - Expand menu of 3base® tests;
  - Develop new *EasyScreen*™ Syndromic Test Kits;
  - Secure registration for new *EasyScreen*™ products.
- **Embed 3base® technology in high-value customer's workflow**
  - Increase adoption of *EasyScreen*™ kits for more applications;
  - Broader range of commercial arrangements with customers.

New products and instruments

- **Expand available *EasyScreen*™ Syndromic Kits**
  - 3 kits research use only (RUO) – tropical diseases, MMR & meningitis;
  - Other kits in development (tick-borne, skin infections, etc.);
  - Advance additional 3 products through the FDA process
- **Improve and enhance 3base® technology platform**
  - Saliva-based protocol for SARS-CoV-2 cleared by TGA;
  - Process improvements for amplification and time-to-result
- **Next-generation, "sample-to-result" instrument**
  - Highly automated, high-throughput;
  - Ideally suited for high-volume commercial users;
  - Embed use of 3base® with customers;
  - Facilitates different commercial models;

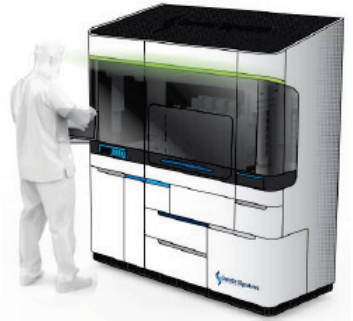


Image is concept only

Upcoming milestones – 12 months

- **US Enteric Protozoan Kit**
  - File 510(k) application by end of CY2022;
  - Launch product once clearance is granted.
- **Increase sales and presence in UK and European markets**
  - Contracts with new customers;
  - Direct sales force and distributor appointments.
- **Initiation of US clinical trial for next *EasyScreen*™ product**
- **R&D initiatives for new products**
  - New tests and *EasyScreen*™ kits;
  - Technology improvements;
  - Development of Next Generation instrument prototype.
- **Quarterly sales updates and progress reports**

Genetic Signatures
Transforming Molecular Diagnostics

Contact Us

Dr John Melki

Genetic Signatures Ltd

Chief Executive Officer

E: john.melki@geneticsignatures.com

P: +61 (0)2 9870 7580

Visit us

www.geneticsignatures.com

Follow us