Genetic Signatures
Transforming Molecular Diagnostics

Investor Update

September 2022

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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.
- **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 (2-Sep-22)	A$0.95
Shares on issue	143.4m[1]
Market capitalisation	**A$136.2m**
Cash (30-Jun-22)	A$36.9m
Debt (30-Jun-22)	Nil
Enterprise value	**A$99.3m**

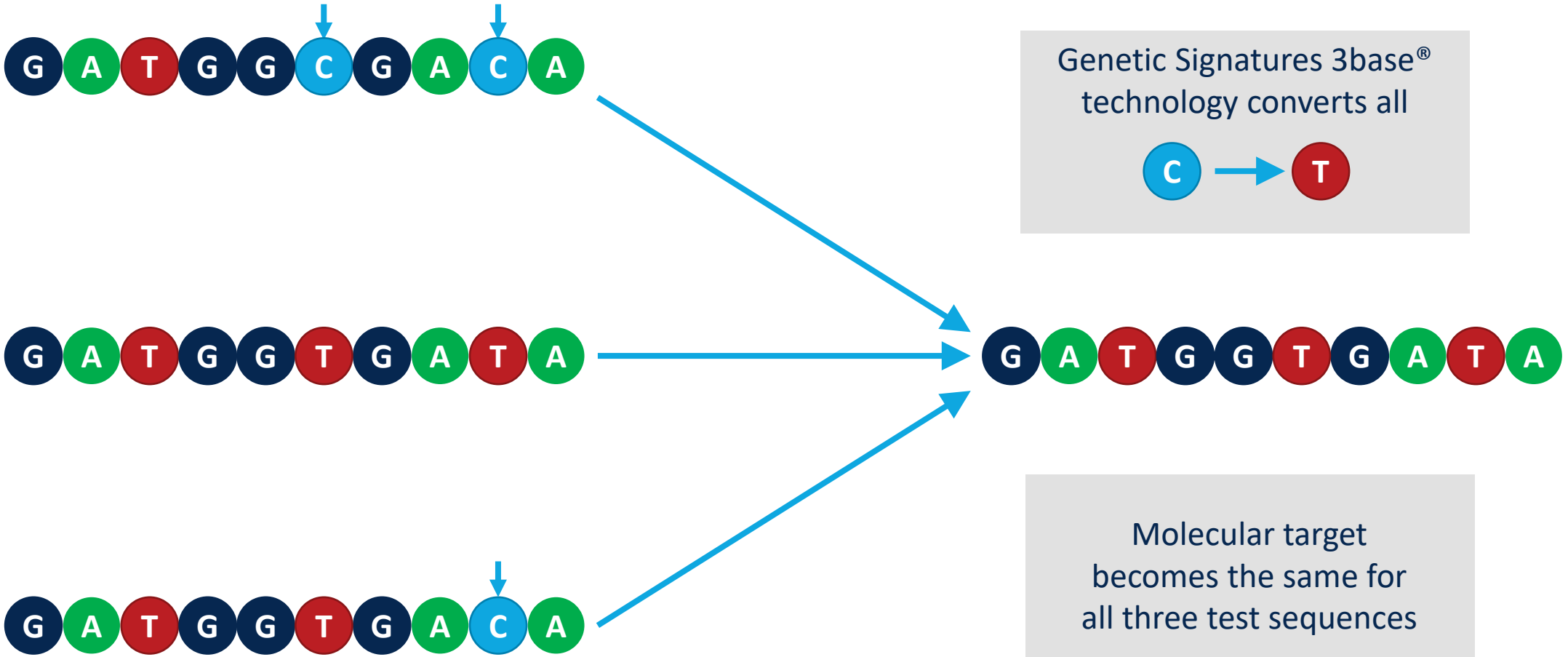
Top shareholders %

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

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

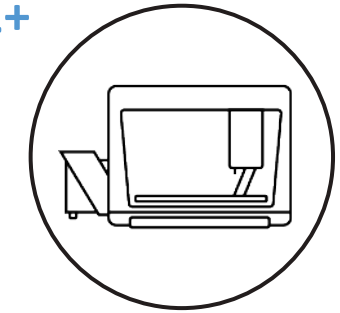


* Human Papilloma virus sequences

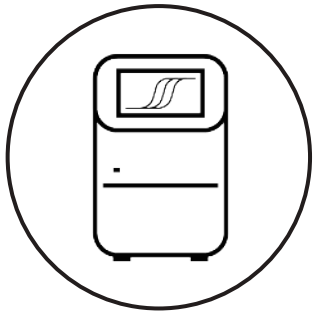
How 3base® tests are performed

Proprietary method - patented until 2031+

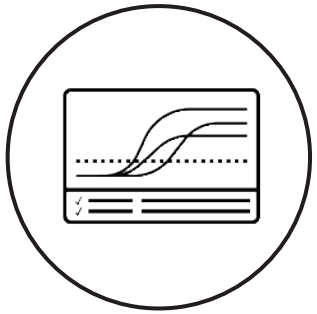
1. Extraction and Conversion
- *natural 4 bases to 3base®*



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.

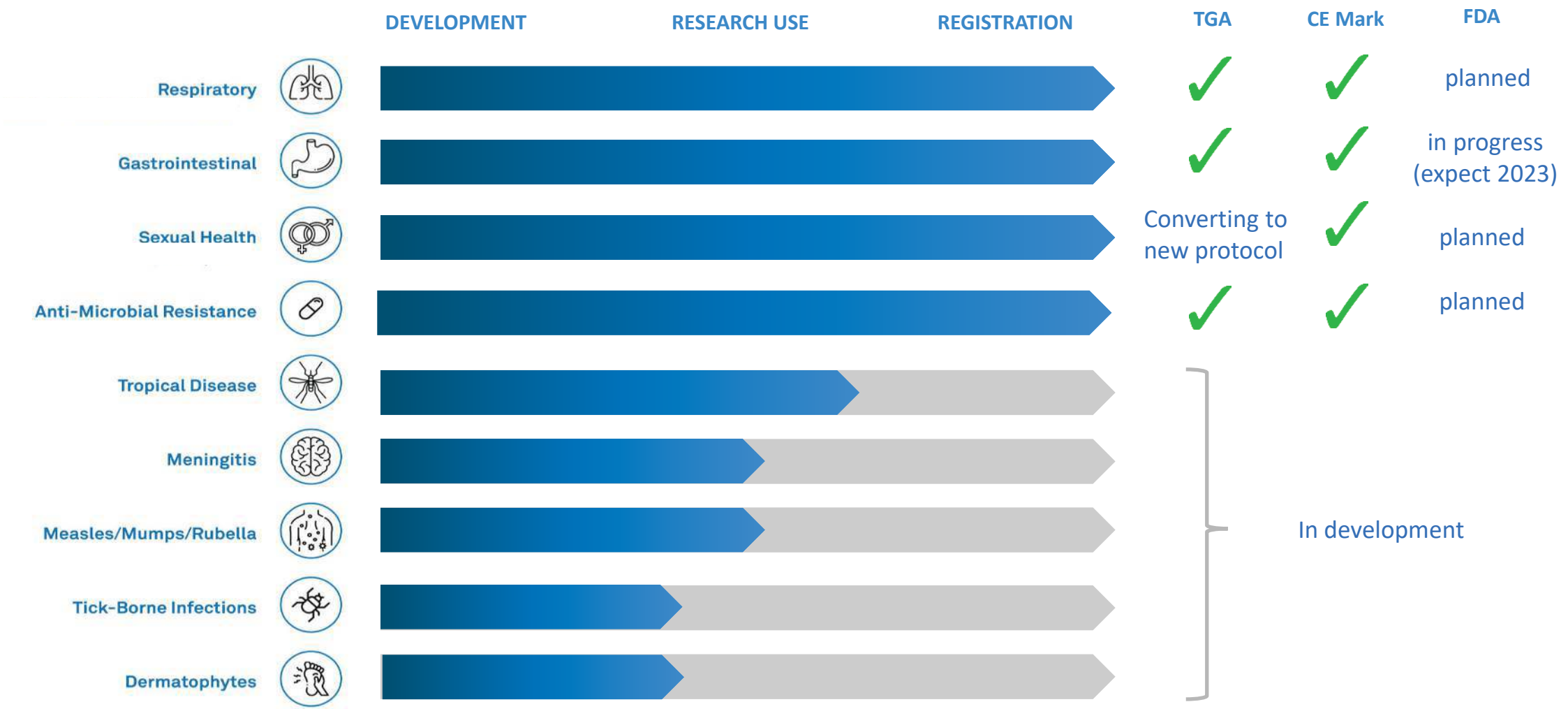
3base® simplifies Syndromic Testing – *EasyScreen™* Kits

- **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.

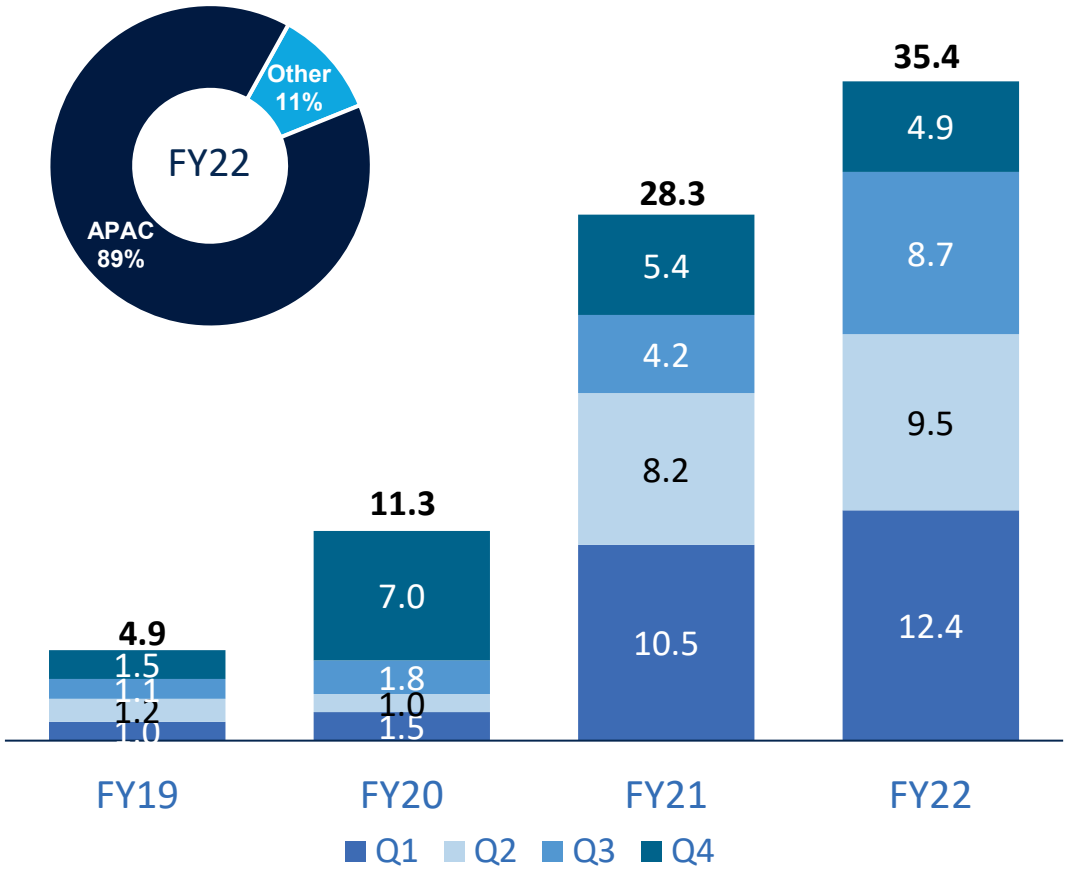
- **Genetic Signatures' *EasyScreen*™ is ideal for Syndromic Testing**
  - Tests for over 100 different types of pathogens;
  - Able to detects variants (i.e. different strains or subtypes);
  - Combine tests to create *EasyScreen*™ Syndromic Detection Test Kits;
  - Detect >20 different pathogens from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

Robust pipeline with multiple products cleared for sale



Track record of continued, strong revenue growth

Sales Revenue (A$m)



- **FY22 sales revenue of $35.4 million (+25% yoy, 93% 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 to Syndromic Respiratory.
- **Successful strategy of targeting high-volume customer groups**
  - High-throughput labs
  - Multi-hospital groups
  - Private pathology chains
  - Government-led programs

Profitable and funded for growth

A$'000s	FY22	FY21
Sales revenue	35,421	28,284
Cost of materials & freight	(11,989)	(9,804)
Gross profit	**23,432**	**18,480**
Employee benefits expense	(11,948)	(10,423)
Scientific consumables & clinical	(3,133)	(2,761)
Other expenses	(3,889)	(2,550)
EBITDA	**4,462**	**2,746**
Depreciation & amortisation	(1,616)	(1,425)
EBIT	**2,846**	**1,321**
Other income	217	435
Profit before tax	**3,063**	**1,756**
Income tax expense	-	-
Net income	**3,063**	**1,756**
Net cash inflows/(outflows)	**6,776**	**(1,055)**
Cash balance (30 June)	**36,897**	**30,121**

- **Profitable, cash flow positive with accelerated sales growth**
  - Sales revenue up 25% yoy;
  - Cash flow positive during FY22;
  - Gross margin on materials of 70%.

- **Strong balance sheet** – 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.

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.

Enteric Protozoan kit will provide entry to North America

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

- **Enteric Protozoan Screening Kit**
  - Completed recruitment for 1,500 subject clinical trial;
  - Targeting 510(k) submission in Q4 CY2022;
  - First *EasyScreen*™ product for US
- **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;
- **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.

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

News flow and 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**

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