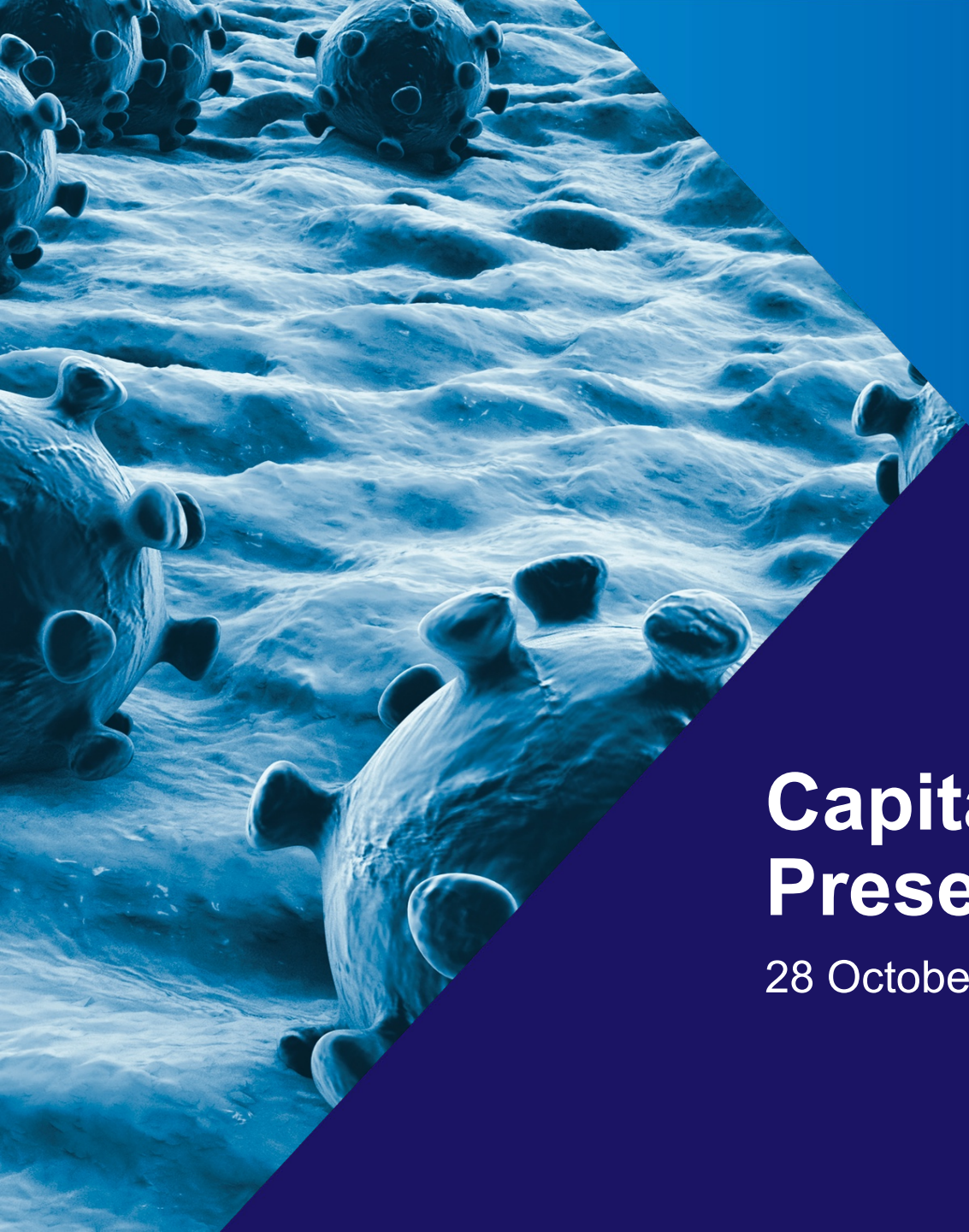

Genetic Signatures

Transforming Molecular Diagnostics

Capital Raising Presentation

28 October 2019

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Executive summary

Genetic Signatures ("GSS") is a molecular diagnostic company in rapid commercialisation phase globally	• Three approved diagnostic tests for sale in over 30 countries utilising the company's proprietary **3base™** technology platform under the *EasyScreen*™ brand • Initial approved tests targeting pathogens in gastroenteritis, respiratory and antibiotic resistant superbugs • Over 500,000 patients have already been tested with a GSS product • FDA submission Enteric Protozoan (gastro) expected by end Q2 CY2020 • Approximately 5.5 million Enteric Protozoan tests undertaken p.a. in US[1]; GSS targeting 10%-15% market share in 3 years
Large global market, with high margins and sticky annuity type revenue	• Global market for first 3 approved tests estimated at US$820m p.a[2] • 65%+ gross margins per test • Tests become embedded in diagnostic lab workflow – 100% customer retention since 2016 • 3-5 year contracts with set pricing and predictable volume • New customers have high "bottom line" impact • "Printer and Cartridge" model – customer installations funded for annuity style consumable revenue (high ROI)
Experiencing rapid organic growth in revenue and expanding pipeline of new customers / tenders	• Tests have high sensitivity and specificity leading to more infections detected – better patient outcomes • Tests have faster throughput and quicker result times – better financial outcome for customers
Proprietary 3base™ technology is well established following significant R&D and IP investment	• 9 patent families in 20 countries – main patent expiring 2031 • All large key markets covered by patent – US, China, UK, Australia etc. • Over $24m and 9 development years spent on R&D and IP costs • Diagnostic companies with multiplex panels/assays have been a focus of recent M&A activity

Notes:
1. Howe Sound Research
2. Kalorama + company estimates

Executive summary

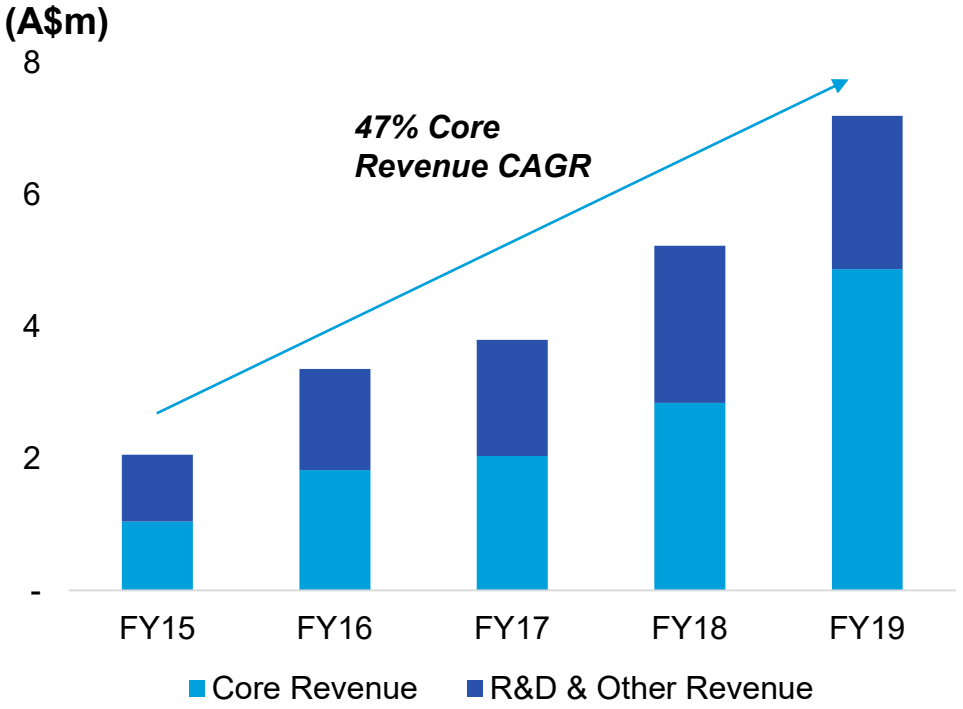
Significant news flow and catalysts pending	• Moving from 3 to 5 registered products
	  – TGA registration to begin selling STI / Genital kits in Australia – targeting early 2020
	  – TGA registration to begin selling Flavi / Alpha Kits in Australia – targeting early 2020
	  – CE registration to begin selling STI / Genital kits in Europe – targeting early 2020
	  – CE registration to begin selling Flavi / Alpha Kits in Europe – targeting early 2020
	• First material customer win in Europe – targeting early / mid 2020
	• First material ASR contract in US – targeting early / mid 2020
	• Ongoing announcements of key contract wins
	• FDA submission for Enteric Protozoan test – targeting mid 2020
	• FDA clearance for Enteric Protozoan test – 90+ days post submission
	• Announcement of first US Enteric Protozoan sales – targeting 2H 2020
	• GS-Call software launched 1H 2020
	• Planning additional FDA submissions
	• Ongoing quarterly revenue and operations reports

GSS is raising up to A$37m at A$0.98 to support the significant pipeline of global growth	• A$10m to fund expanded global sales force for 2+ years. Increase from 13 to 36 sales and technical support. Recruitment and training of US staff for anticipated clearance • A$5m to fund new customer installations – high ROI / underpins significant long-term revenue growth • A$6m to fund clinical trials and costs for 3 new FDA clearances • A$7.5m to fund R&D and development of new generation hardware exclusive to 3base technology for future markets • A$8.5m for working capital
Fully funded post capital raising, with significant operating leverage	• Funded to cash flow positive and profitability • FY20 revenue growth expected to exceed historical CAGR of 47%[1]

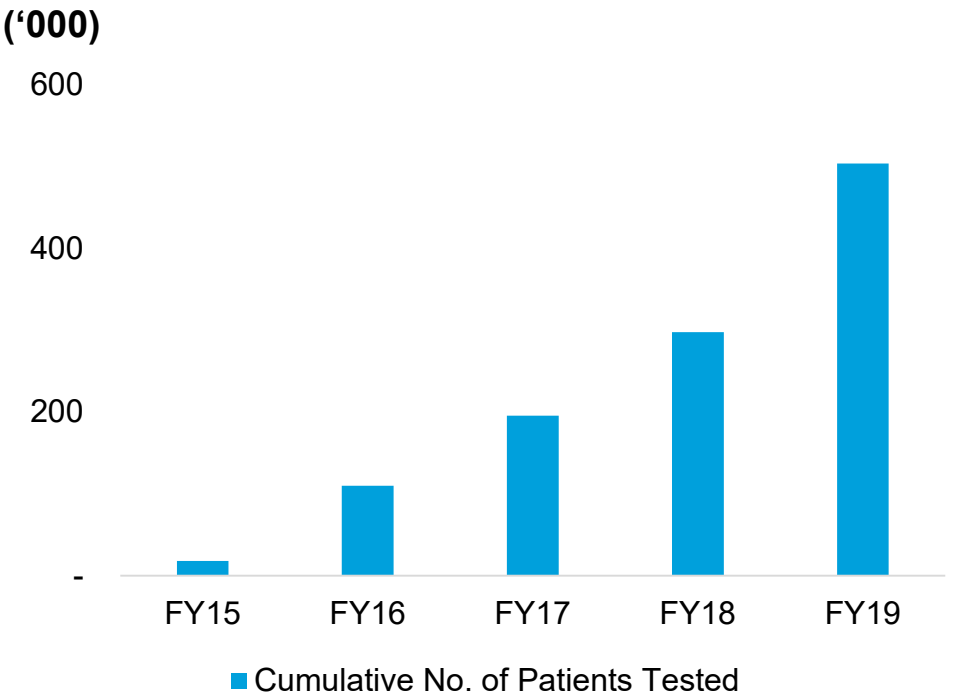
Notes:
1. Core Revenue CAGR FY15 to FY19

Significant growth in revenue and patients

Statutory revenue



Cumulative patients tested using GSS kits



- ~97% of FY19 core revenue was generated in Australia (small proportion of global market) - highlights commercialisation success in a competitive market
- Sales pipeline in EU is expanding with a number of customer trials / tenders nearing completion. First material sales in EU anticipated in 2H FY20
- First material sales in US anticipated in 2H FY20
- **FY20 revenue growth expected to exceed historical CAGR of 47%[1]**

Notes:
1: Core Revenue CAGR FY15 to FY19

Product portfolio

3 products selling in Australia and EU. Major new registrations and product launches imminent in US and EU

Approved and commercializing | Imminent approval and sales

EasyScreen™ portfolio	Test type	Global market size[1]	Australia	Europe	North America
Enteric Detects 20+ gastroenteritis pathogens (e.g. Salmonella and Cryptosporidium)	Stool	A$573m p.a	**TGA registered. Commercial sales**	**CE-IVD Marked. Sales just beginning. First material sales anticipated in 2H20**	**Targeting FDA submission mid 2020. Material sales anticipated in FY21**
Respiratory Detects 14 common respiratory infections (e.g. Influenza A & B, Rhinovirus, pneumonia)	Throat Swab	A$627m p.a	**TGA registered. Commercial sales**	**CE-IVD Marked. Sales anticipated in FY20**	
ESBL & CPO Identifies antibiotic resistant 'superbugs'	Stool / Urines / Swabs	Emerging market, ripe for molecular disruption	**TGA registered. Commercial sales**	**CE-IVD Marked. Sales anticipated in FY20**	
STI / Genital Detects 12 of the most common sexually transmitted infections (e.g. Chlamydia, Gonorrhoea, Syphilis)	Swab / Urines	A$1,891m p.a	**TGA registration anticipated early 2020. First sales to exempt customers.**	**CE-IVD Mark anticipated early 2020. First sales to exempt customers.**	
Flavivirus / Alphavirus Detects viruses primarily spread by insects causing widespread morbidity (e.g. Dengue Fever)	Blood	A$69m p.a	**TGA registration anticipated early 2020. First sales to exempt customers.**	**CE-IVD Mark anticipated early 2020. First sales to exempt customers.**	
Meningitis Detects life-threatening infection surrounding the brain and spinal cord	Blood	A$156m p.a	**Advanced stages of development**		
Atypical Respiratory Simultaneous detection of leading causes of bacterial respiratory infection	Swab / Sputum	See Respiratory	**In development**		

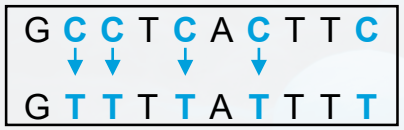
1. World Market for Molecular Diagnostics, 5th. Edition (Infectious Disease, Oncology, Blood Screening, Pre-Natal and Other Areas) Kalorama Information, Published: 1/9/2013 & company estimates

The 3base™ technology behind our *EasyScreen*™ tests

World-first, proprietary platform technology significantly simplifies genetic detection of microbial organisms in current urine, blood or stool tests

1. **3base™** platform technology converts original 4-base microbial genome to 3-base
2. Conversion occurs during standard procedures with no additional steps for the technician
3. **3base™** MDx can identify a wider array of patient infections and provide greater testing accuracy by reducing complexity

1,048,576 combinations for a 10 digit number with 4-base



59,049 combinations for a 10 digit number with 3-base

Benefits for patients

- ✓ 83% more infections detected than current tests[1]
- ✓ Results in 1 day instead of 4 days – quicker path to treatment

Benefits for labs / hospitals

- ✓ Cost saving for labs – less time spent evaluating samples
- ✓ More results per patient specimen
- ✓ Reduced complexity in molecular testing

Benefits for government

- ✓ Reduced hospital stays from more accurate infection detection
- ✓ Faster turnaround speeds up costly treatment and reduces risk of spread of disease
- ✓ Reduced repeat doctor visits

1. See slide 21 of the appendix for further details. Diagnostic Microbiology and Infectious Diseases 78(2): 149-152, February 2104. St Vincent's Hospital (SydPath) *EasyScreen*™ vs traditional methods

Genetic Signatures revenue model

Products

- The **3base™** kits are platform agnostic, although GSS hardware (GS1) is utilised by most customers
- Consumable revenue model - price per test
- ~65% gross margin

GS1 Instrument

***EasyScreen™* Kit**

Customers

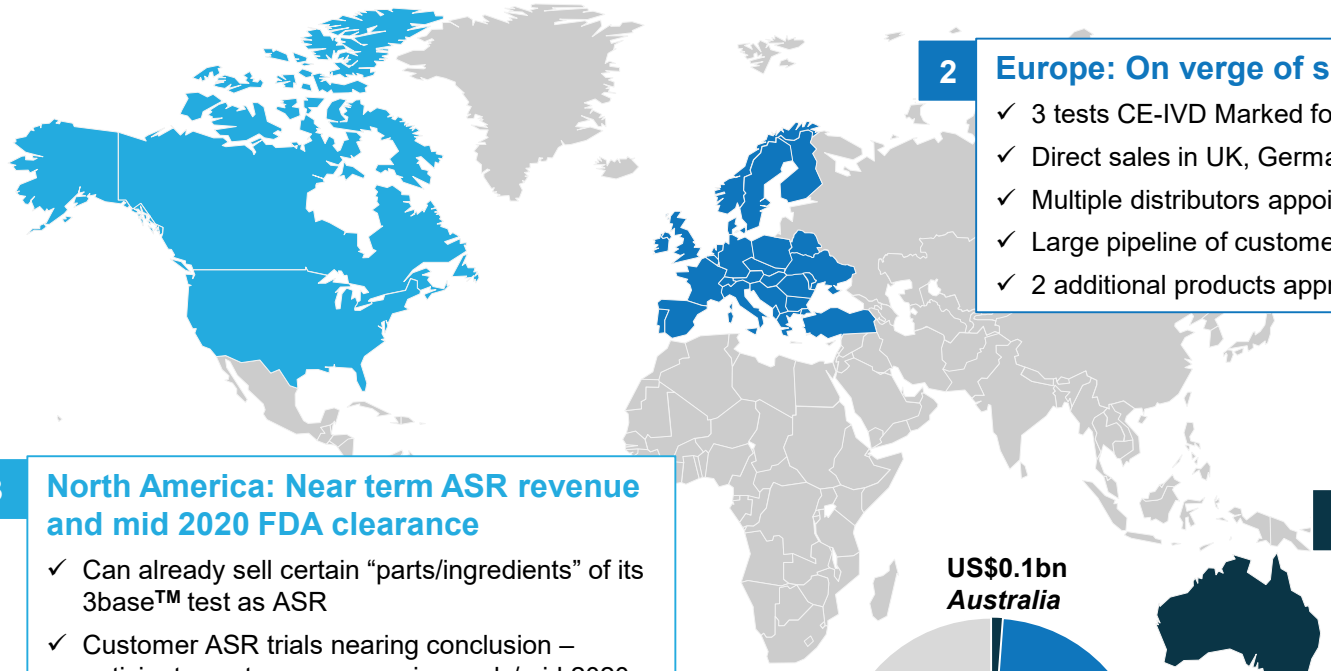
- Customers are large pathology groups, hospitals or government run programs – depending on country
- Customers purchase kits from GSS – then reimbursed by the government or insurers
- To speed up customer acquisition, GSS may fund new customer installations, particularly offshore
  - High ROI – will recoup a multiple of initial outlay via long term consumable revenue

Contracts

- Customers sign a 3-5 year contract securing price and expected volumes
- Volumes are relatively predictable with good visibility
- Monthly orders with fast payment terms – quick cashflow and low working capital
- Tests become embedded in diagnostic lab workflow – 100% customer retention since 2016

Executing a global strategy for commercialisation

GSS remains focused on growth in 3 major markets



2 Europe: On verge of significant revenue

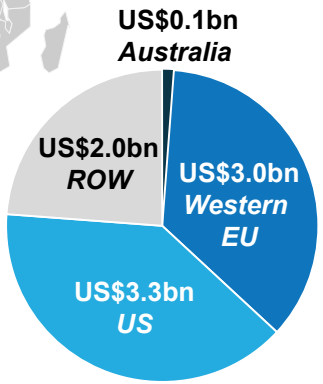
- ✓ 3 tests CE-IVD Marked for sale in the EU
- ✓ Direct sales in UK, Germany
- ✓ Multiple distributors appointed or to be appointed for other countries
- ✓ Large pipeline of customers / tenders. Customer trials in progress
- ✓ 2 additional products approaching CE approval

3 North America: Near term ASR revenue and mid 2020 FDA clearance

- ✓ Can already sell certain "parts/ingredients" of its 3base™ test as ASR
- ✓ Customer ASR trials nearing conclusion – anticipate customer conversion early/mid 2020
- ✓ FDA submission for first Enteric test in mid 2020
- ✓ Aspire to capture 10-15% of market for Enteric test within 3 years, total available market estimated 5.5m tests p.a

1 Australia: Continued rapid growth

- ✓ 3 tests registered for sale
- ✓ Already have 1 of the 3 major pathology customers
- ✓ Winning significant market share
- ✓ 2 additional products approaching TGA registration



Infectious disease MDx market size (2018)[1]

Source:

1. Bell Potter Securities Estimates (Initiation of Coverage Report) and World Market for Molecular Diagnostics, 5th. Edition (Infectious Disease, Oncology, Blood Screening, Pre-Natal and Other Areas) Kalorama Information, Published: 1/9/2013.

Australia

Commercialisation success in Australia. More growth via customers and new products

Market Dynamics

- Market comprises private centralised labs, government and hospital networks
- Private labs dominated by 3 large pathology groups (Sonic, Healius, Australian Clinical labs) - ~58% of total test market
- We estimate market size to be A$47m p.a across our 3 currently registered tests[1]

Regulatory approvals

✓	Enteric range (bacterial, viral, protozoan)
✓	Respiratory
✓	ESBL & CPO (antibiotic superbugs)
Exp. 2020	STI / Genital
Exp. 2020	Flavivirus / Alphavirus

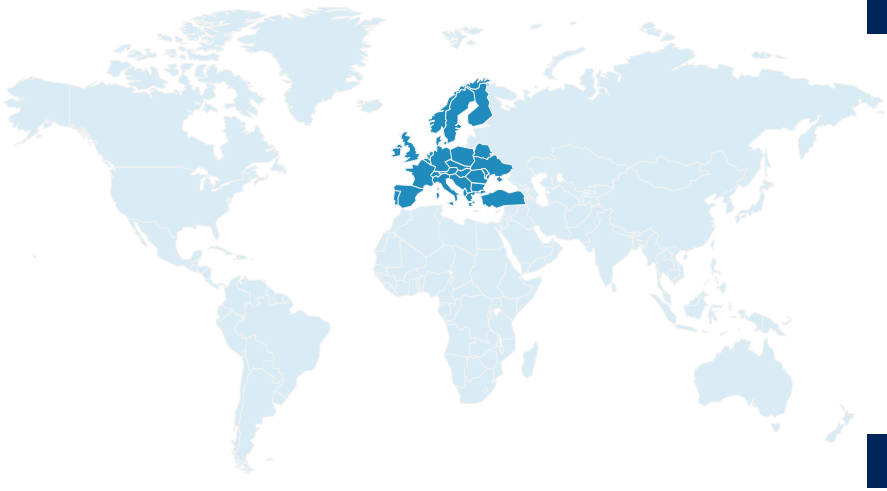
Growth drivers and commentary

- Currently generating 90%+ of group core revenue
- Significant volumes from 1 of top 3 centralised labs
- Leverage current **strong foothold in the Australian market**
- **Continue growth** of the domestic business in FY20
- Launch **two new products in 2020** – STI/Genital and Flavi/Alpha
- Develop & release new higher throughput systems and next generation platform
- Develop new 3base™ test kits – not yet disclosed
- Significant IP and learnings from early sales efforts that will accelerate our growth in offshore markets

1. http://medicarestatistics.humanservices.gov.au/statistics/mbs_item.jsp and company estimates. Australia is more advanced in its adoption of MDx test than other countries.

Europe

European Union and United Kingdom represents ~35% of global molecular diagnostics market[1]



Market Dynamics

- Focus on selling direct in UK & Germany
- 85% of testing in UK managed under NHS – mixed between Public Health England labs (7 centralised labs) and hospital trusts
- Germany dominated by 5 large pathology groups with some smaller university clinics
- Remaining countries – distributor model

Regulatory approvals

✓	Enteric range (bacterial, viral, protozoan)
✓	Respiratory
✓	ESBL & CPO (antibiotic superbugs)
Exp. 2020	STI / Genital
Exp. 2020	Flavivirus / Alphavirus

Growth drivers and commentary

- Targeting first major sale in Europe early/mid 2020 – also becomes reference site for other potential customers
- **Increased investment into European sales** to coincide with regulatory improvements and expanding customer pipeline
- Further build **sales and technical team**
- Additional distributors and managed warehouse **allowing rapid delivery; expanding local footprint**

1. World Market for Molecular Diagnostics, 5th. Edition (Infectious Disease, Oncology, Blood Screening, Pre-Natal and Other Areas) Kalorama Information

North America

North America is the largest market opportunity globally, accounting for an estimated 40% of molecular diagnostics revenue[1]

Regulatory approvals

Exp. 2020 Enteric Protozoan anticipated in mid 2020.

Exp. 2020/1 Additional tests (not identified for competitive purposes)

Enteric (Protozoan) revenue potential p.a.[2]

Revenue per test	10% Market Share	15% Market Share	20% Market Share
A$22 (US$15)	A$12.1m	A$18.2m	A$24.2m
A$37 (US$25)	A$20.4m	A$30.5m	A$40.7m
A$51 (US$35)	A$28.1m	A$42.1m	A$56.1m

Market Dynamics

- Est. 5.5m Enteric Protozoan tests p.a
- Initial focus on largest 30 “high throughput” centralised labs
- Smaller decentralised labs more accessible with development of new testing hardware
- Whilst awaiting clearance GSS can sell “parts/ingredients” of 3base™kits to centralised labs under ASR program

Growth drivers and commentary

- First material ASR order anticipated in early/mid 2020 – becomes reference site for other potential customers
- Several **labs now trialling the ASR products**, which incorporate the Company’s proprietary **3base™** technology
- ASR trials presented at key conferences
- With customer relationships established and expanding sales force we are “game ready” for our first FDA regulatory clearance for Enteric Protozoan
- Aiming to win 10-15% of Enteric Protozoan market within 3 years
- Additional regulatory clearances for additional tests to drive growth

1. Bell Potter Securities Estimates (Initiation of Coverage Report) and World Market for Molecular Diagnostics, 5th. Edition (Infectious Disease, Oncology, Blood Screening, Pre-Natal and Other Areas) Kalorama Information, Published: 1/9/2013.
2. Assumes 5.5 million Enteric Protozoan tests undertaken p.a. in US

M&A activity in the diagnostic sector

Strong strategic interest from large diagnostic companies in multiplex panels/assays such as GSS *3Base*™ technology. M&A activity within the sector expected to continue

Date	2018	2018	2018	2017	2016	2011
Company	STATdx	Cepheid A better way.	Fast Track DIAGNOSTICS A Siemens Healthineers Company	EUROIMMUN a PerkinElmer company	FOCUS Diagnostics Part of DiaSorin Group	cellestis
	Private	*(NASDAQ:CPHD)*	*(Private)*	*(Private)*	*(NYSE:DGX)*	*(ASX:CST)*
Acquired by	QIAGEN	DANAHER	SIEMENS	PerkinElmer For the Better	DiaSorin	QIAGEN
	(NYSE:QGEN)	*(NYSE:DHR)*	*(ETR:SIE)*	*(NYSE: PKI)*	*(BIT:DIA)*	*(NYSE:QGEN)*
Transaction	Takeover	Takeover	Takeover	Takeover	Acquired molecular and immunoassay business	Takeover
Size	US$147m upfront US$44m milestone	US$4bn	Not disclosed	US$1.3bn	US$300m	A$400m

Notes:
Source: company announcements

Catalysts and newsflow

Expected to announce a significant amount of news flow and major catalysts by end of 2020

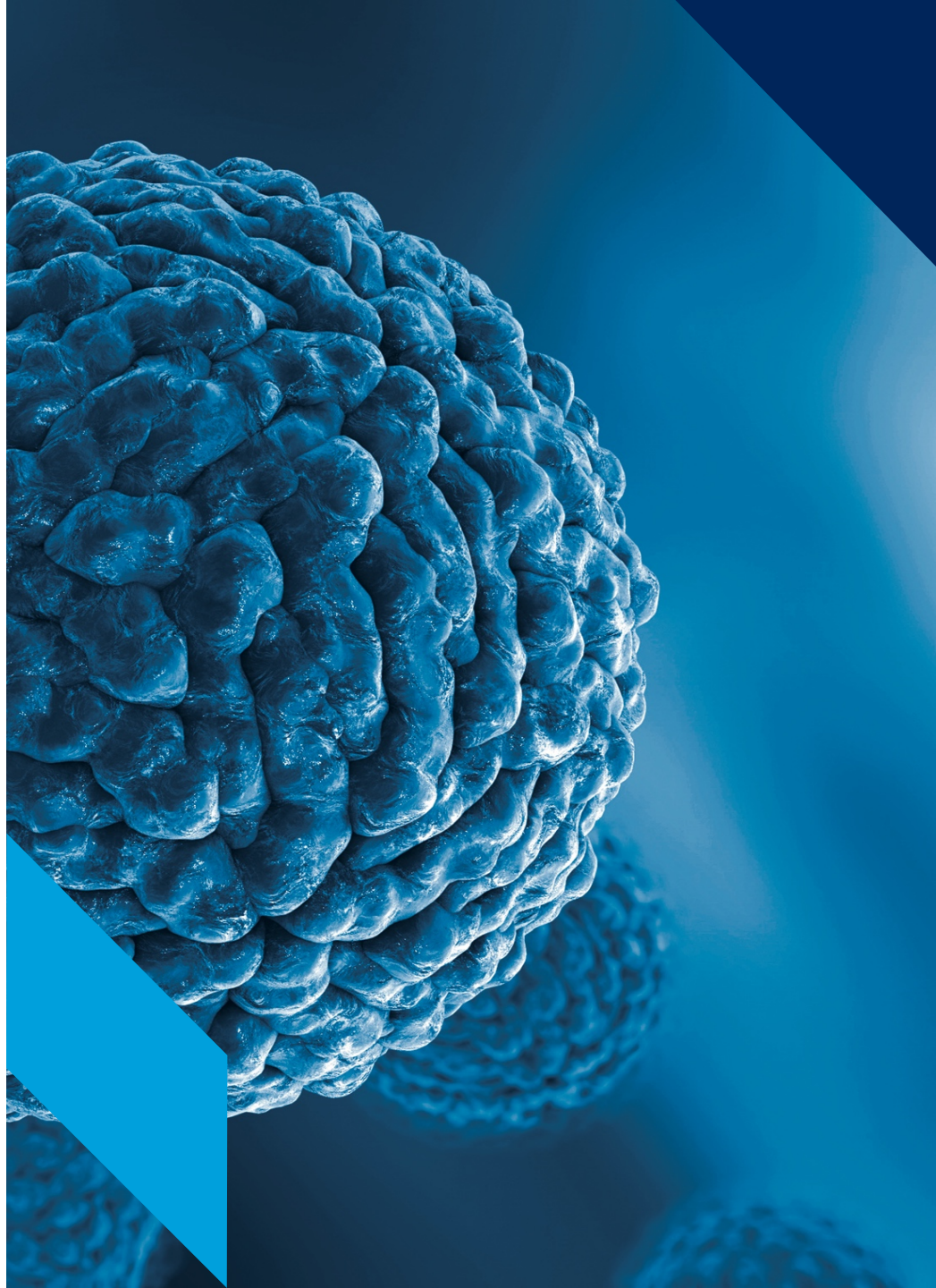
- TGA registration to begin selling STI / Genital kits in Australia – targeting early 2020
- TGA registration to begin selling Flavi / Alpha Kits in Australia – targeting early 2020
- Ongoing announcements of key contract wins

- CE registration to begin selling STI / Genital kits in Europe – targeting early 2020
- CE registration to begin selling Flavi / Alpha Kits in Europe – targeting early 2020
- First material customer win in Europe – targeting early/mid 2020

- First material ASR contract in US – targeting early/mid 2020
- FDA submission for Enteric Protozoan test – expected mid 2020
- FDA clearance for Enteric Protozoan test – 90+ days post submission
- Announcement of first US Enteric Protozoan sales – anticipated 2H 2020

- GS-Call software launched 1H 2020
- Planning additional FDA submissions
- Ongoing quarterly revenue and operations reports

Offer Details



Offer details

Two Tranche Placement of ~A$35m to institutional and sophisticated investors and A$2m Share Purchase Plan

Placement	Two Tranche Placement to institutions, sophisticated and professional investors to raise A$35.0 million via the issue of 35.7m shares: • Issue Price A$0.98 per share • Tranche 1 Placement of approximately A$15.3m under the company's existing 15% Placement capacity under ASX Listing Rule 7.1 • Tranche 2 Placement of up to A$19.7m subject to shareholder approval at an EGM on or around 9 December 2019
Pricing	The Offer Price of A$0.98 represents an approximate: • 9.3% discount to the closing price on 23 October 2019 • 12.2% discount to the 15-day Volume Weighted Average Price (VWAP) up to and including 23 October 2019
Share Purchase Plan	Genetic Signatures Limited intend to offer eligible shareholders an opportunity to subscribe for up to A$30,000 of new shares under a Share Purchase Plan (SPP) at the same price as the Placement. It is intended the SPP will be capped at approximately A$2 million.
Lead Manager	Bell Potter Securities Limited

Use of funds

Funds raised to rapidly grow global revenue and fully fund the Company through to profitability and breakeven

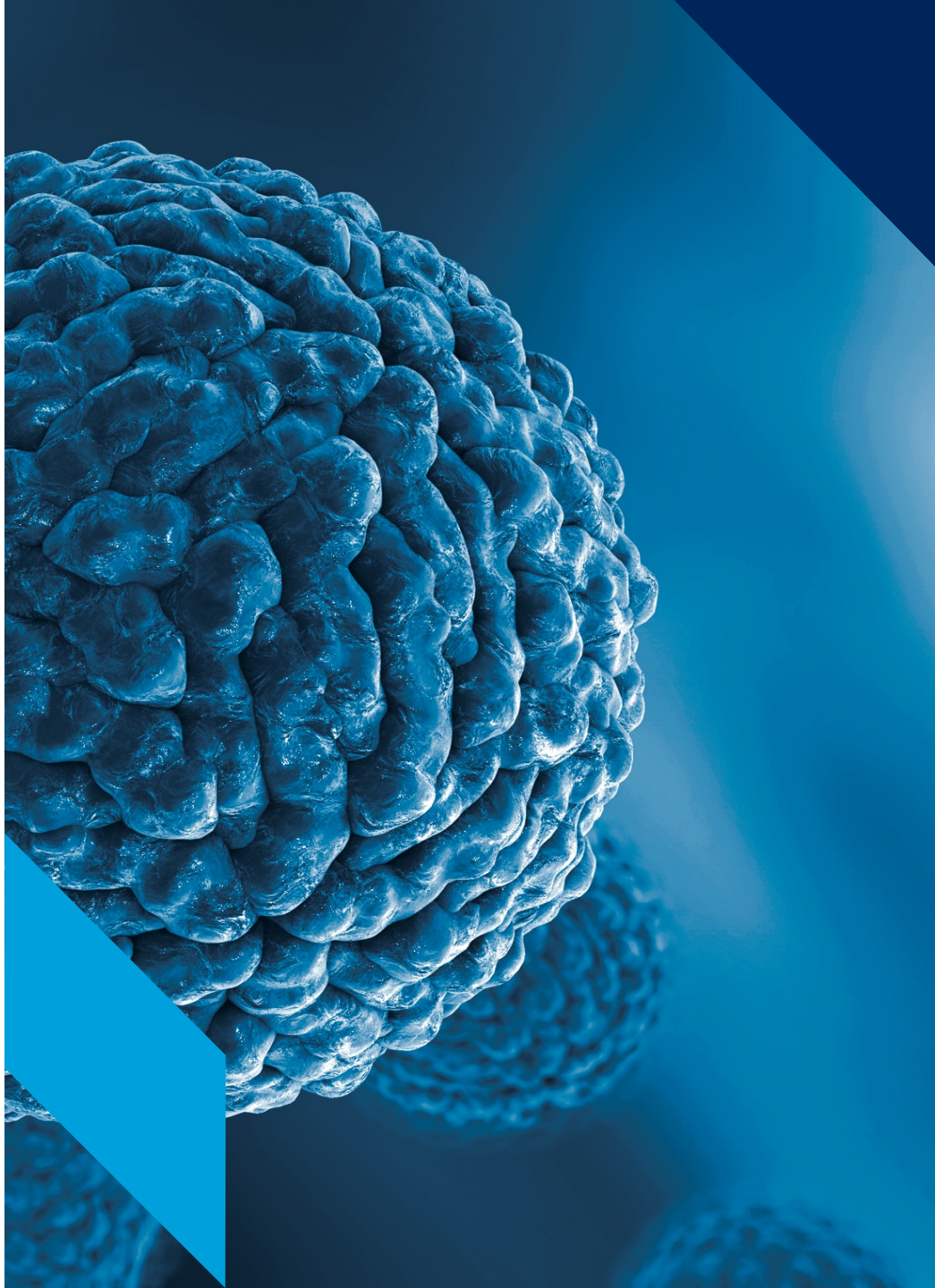
Increase sales and marketing team	• Expanding the global sales and support team towards 31 – 24 new sales, marketing and support staff across EU, US – Staged rollout over two years – Prepares the company for first FDA approved product	$10.0m
Additional regulatory approvals	• FDA product submissions – Clinical trials to support 3 further FDA submissions	$6.0m
Funding for new customer installations	• High ROI – will recoup a multiple of initial outlay via long term consumable revenue	$5.0m
R&D and development of new hardware	• New product development – Pipeline of new products to expand the portfolio • Development of a new hardware offering to broaden customer reach – Access to wide range of smaller, lower throughput clinics	$7.5m
	• Working capital and capital raising costs	$8.5m
	Total	**$37.0m**

Offer timetable

Trading halt	Thursday, 24 October 2019
Transaction announced & Company resumes trading	Monday, 28 October 2019
Placement Tranche 1 Settlement of new shares	Friday, 1 November 2019
Placement Tranche 1 Allotment of new shares	Monday, 4 November 2019
SPP opens	Monday, 4 November 2019
SPP closes	Friday, 15 November 2019
Special meeting of shareholders to consider resolution to approve the issue of Placement Tranche 2 new shares	On or around Friday, 6 December 2019
Placement Tranche 2 Settlement of new shares*	Week of Monday, 9 December 2019
Placement tranche 2 Allotment of new shares*	Week of Monday, 9 December 2019

This timetable is indicative only and subject to change by the Company and Lead Manager

Appendix



Corporate summary

Genetic Signatures Limited (ASX: GSS)

Financial information

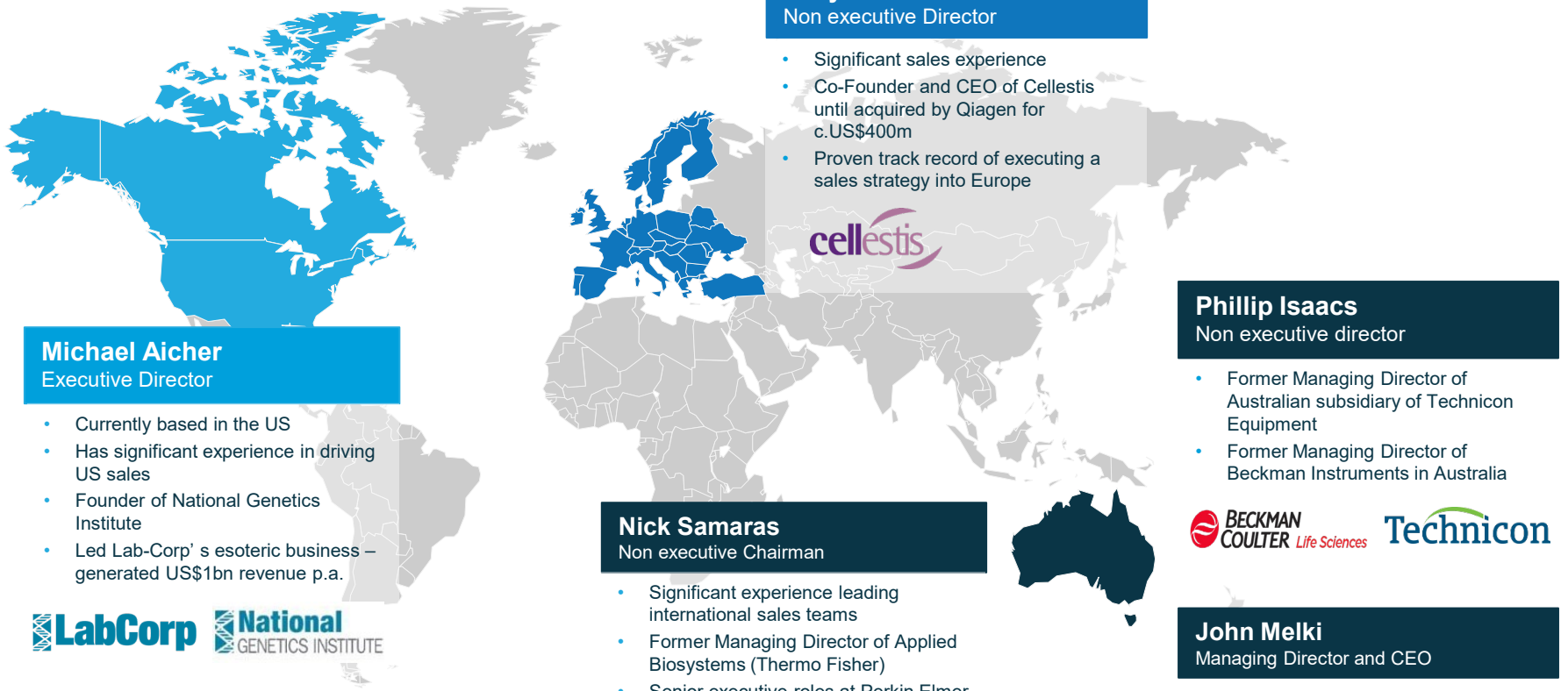
Share Price (23 October 2019)	A$1.08
Shares on issue (pre)	104.1m[1]
Market capitalisation (pre)	**A$112.4m**
Cash (pro-forma Sep-19 post offer)	A$41.9m
Debt	Nil

Top shareholders %

Asia Union and Christopher Abbott	36.4%
Karst Peak (HK-based investment manager)	18.2%
Directors, management & advisors	>6.0%

Notes:
1: Excludes 2.68m unquoted options (various expiration dates and prices)

Board of Directors have a track record of success



Tony Radford
Non executive Director

- Significant sales experience
- Co-Founder and CEO of Cellestis until acquired by Qiagen for c.US$400m
- Proven track record of executing a sales strategy into Europe

cellestis

Michael Aicher
Executive Director

- Currently based in the US
- Has significant experience in driving US sales
- Founder of National Genetics Institute
- Led Lab-Corp' s esoteric business – generated US$1bn revenue p.a.

LabCorp National GENETICS INSTITUTE

Nick Samaras
Non executive Chairman

- Significant experience leading international sales teams
- Former Managing Director of Applied Biosystems (Thermo Fisher)
- Senior executive roles at Perkin Elmer and AMRAD Corporation (CSL)

CSL ThermoFisher SCIENTIFIC PerkinElmer

Phillip Isaacs
Non executive director

- Former Managing Director of Australian subsidiary of Technicon Equipment
- Former Managing Director of Beckman Instruments in Australia

BECKMAN COULTER Life Sciences Technicon

John Melki
Managing Director and CEO

- Led global commercialisation efforts of GSS since 2011 and the product development team since 2003
- Led the commercialisation of two research products worldwide and seven diagnostic products in Australia and Europe

Powerful evidence of efficacy from clinical trials

Comparative studies confirm superior performance of Genetic Signatures' technology

Clinical trials demonstrate efficacy

- Evaluation study conducted at St. Vincent's Hospital, Sydney
- 221 patient samples tested and compared to traditional culture, microscopy, and antibody based tests
- Results highlight the efficacy of 3base™ technology and GSS' products
  - **Faster screening**: Generated results in 4 hours, compared to up to 120 hours for traditional testing methods
  - **Greater accuracy**: Identified 44 infections that existing testing missed

St Vincent's Hospital Evaluation Study results

Pathogen	Conventional Methods*	*EasyScreen*™
Campylobacter	7	9
Salmonella	8	9
Shigella	5	6
C. difficile	3	7
Yersinia	-	1
Cryptosporidium	-	1
Giardia	9	12
Dientamoeba fragilis	4	20
Blastocystis hominis	16	21
Entamoeba histolytica	1	1
Norovirus group 2	-	7
Adenovirus	-	1
Adenovirus 40/41	-	1
Sapovirus	-	1
Total	**53**	**97**

Significantly greater efficacy (+83% more infections detected)

Notes:
1 Diagnostic Microbiology and Infectious Diseases 78(2): 149-152, February 2014. St Vincent's Hospital (SydPath) Evaluation Study – *EasyScreen*™ versus traditional methods

Contact us

Dr John Melki

Genetic Signatures

Chief Executive Officer

P: +61 (0)2 9870 7580

E: john.melki@geneticsignatures.com

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