

# A transformative, predictive cancer diagnostics technology company

Initial Product Aim = ColoSTAT®
the early detection of colorectal
cancer using a simple, accurate &
low-cost blood test, designed for
global mass-market screening.

Investor Presentation 21 December 2020

**ASX: RHY** 



#### **Important Notice**

- This presentation has been prepared by Rhythm Biosciences Limited (Rhythm) and is provided for general information purposes only. No party other than Rhythm has authorised or caused the issue of this document, or takes responsibility for, or makes any statements, representations or undertakings in this presentation.
- This presentation is not intended to be relied upon as advice to investors or potential investors and does not take into account the investment objectives, financial situation or needs of any particular investor. Rhythm makes no warranty or representation (express or implied) as to the accuracy, reliability or completeness of the information contained in this presentation. Specifically, several matters referred to in the presentation remain under investigation and are subject to change or even elimination, depending on further research and investigation. Further, any opinions (including any forward-looking statements) expressed in this presentation are subject to change without notice. Rhythm and its directors, officers, employees, advisers and agents shall have no liability (including liability to any person by reason of negligence or negligent misstatement) for any statements, opinions, information or matters (express or implied) arising out of, contained in or derived from or for any omissions from this presentation, except liability under statute that cannot be excluded.
- This presentation, including the information contained in this disclaimer, does not form part of any offer, invitation or recommendation in respect of shares, or an offer, invitation or recommendation to sell, or a solicitation of any offer to buy, shares in the United States, or in any other jurisdiction in which, or to any person to whom, such an offer would be illegal.
- This presentation may include forward-looking statements. Forward-looking statements are only predictions and are subject to known and unknown risks, uncertainties and assumptions, many of which are outside the control of Rhythm. Actual values, results or events may be materially different to those expressed or implied in this presentation depending on a range of factors. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements. No representation or warranty (express or implied) is made by Rhythm or any of its directors, officers, employees, advisers or agents that any forecasts, projections, intentions, expectations or plans set out in this presentation will be achieved.



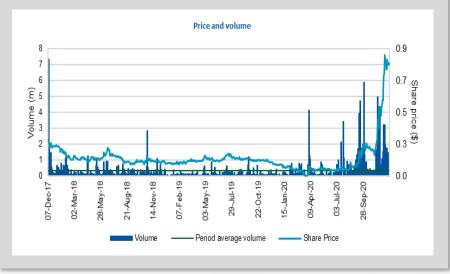
#### **Corporate Overview**

#### **Rhythm Biosciences (ASX: RHY)**

# A transformative, predictive cancer diagnostics technology company

- ✓ RHY is a new-generation / disruptive cancer diagnostics technology developer focused on building a global diagnostics business.
- ✓ ColoSTAT® is the first product in development, representing a transformative diagnostic tool, to more accurately detect colorectal cancer, via a simple, accurate, low-cost blood test, aimed at global mass-market screening.
- ✓ Used as a primary screening or secondary triage test, ColoSTAT® could play an important role in reducing the global healthcare burden of colorectal cancer.

Financial Information	
ASX Code:	RHY
Share Price (18 December 2020)	\$0.805
12-Month Range	\$0.041 - \$0.95
Shares on Issue	~201.496m
Unlisted Options on Issue	8.150m
Market Capitalisation	~\$164.21m
Cash on hand (30-Sep-20)	~\$6.169m
Enterprise Value (18-Dec-20)	~\$156.035m



## **Board and Management**

# A strong and industry experienced board and management team, with a pedigree of building successful businesses.













OTTO BUTTULA	GLENN GILBERT	TREVOR LOCKETT	LOU PANACCIO	DAVID WHITE	EDUARDO VOM
Chairman	Chief Executive Officer	Technical – Executive-Director	Non-Executive Director	Non-Executive Director	Non-Executive Director
<ul> <li>Extensive financial services and biotech experience</li> <li>Co-Founder and CEO of IWL (ASX: IWL); Founder / former CEO of Investors Mutual</li> <li>Formerly a Director of Imugene (ASX: IMU) and Chairman of Investorfirst, now HUB (ASX: HUB)</li> </ul>	<ul> <li>Former Head of Global Sales, Marketing and BD at Medical Developments Int. (ASX: MVP)</li> <li>Strong international business experience</li> <li>Strong Legal, IP &amp; operational management</li> <li>Various leadership positions at CSL</li> </ul>	<ul> <li>Former Theme Leader Colorectal Cancer and Gut Health CSIRO</li> <li>Leader – Personalised Health Group CSIRO</li> <li>Inventor on seven commercially- licensed patent families</li> </ul>	<ul> <li>Chairman Avita         Medical (ASX: AVH)</li> <li>Director Sonic         Healthcare (ASX:         SHL)</li> <li>Chairman NeuralDX</li> <li>Non-executive         Director Unison         Housing</li> <li>Former CEO Melb         Pathology &amp;         Monash IVF</li> </ul>	<ul> <li>US BD&amp;C, Bluechiip (ASX: BCT)</li> <li>US Business Development, Planet Innovation</li> <li>Molecular Sales, GenMark Dx</li> <li>Group Marketing Manager, Advanced Staining, Leica Biosystems</li> </ul>	<ul> <li>Co-Founder &amp; Executive Director Planet Innovation</li> <li>Director Atmo Biosciences</li> <li>Former VP Innovation, Genetic Technologies</li> <li>Various senior leadership positions Vision BioSystems</li> </ul>

## **Key Investment Highlights**

As a simple, accurate & low-cost blood test, Rhythm's ColoSTAT® has potential to substantially increase global mass market screening

- ✓ Transformative Diagnostic Company: Focused on early detection of colorectal cancer (CRC) using a simple, low-cost blood test that could revolutionise colorectal cancer detection & mass-market screening.
- ✓ Significant Opportunity: Mass-market screening marketplace worth \$38+bn p.a. in the US, EU, CH, JP & AU of 50-74 year old alone. Market wants (& needs) change in colorectal cancer detection & screening.
- ✓ Scalable & Capital Light Commercial Model: Lean business structure. Scalable & flexible implementation by market & segment.
- ✓ Experienced Team: Long tenure with successful history in both diagnostic & healthcare sectors and importantly in building sizeable, successful businesses.

## **Key Investment Highlights**

# As a simple, accurate & low-cost blood test, Rhythm's ColoSTAT® has potential to substantially increase global mass market screening

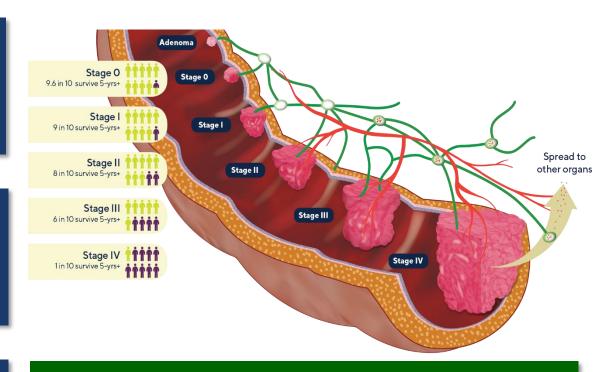
- ✓ **Sound technology:** 13 years of R&D pioneered by CSIRO<sup>^</sup> combined with 3 years RHY, giving confidence in the biomarkers selected.
- ✓ Key Lead Biomarker a potential Platform Technology: Known to be highly expressed in a range of cancers, offering Rhythm a potentially deeper pipeline targeting other indications.
- ✓ Product differentiation: Patient preference for a simple blood test vs faecal test. Significant unmet need.
- ✓ Simple Business Model: ColoSTAT® test designed to integrate with existing pathology infrastructure & instrumentation (no additional capital spend, can reduce labour and will be equipment agnostic).

#### Colorectal Cancer – Mass-Market Screening Is Critical

Colorectal cancer is the second largest cause of cancer-related deaths in the industrialised world with over 850,000 deaths annually.

Curable in over 90% of cases if detected early. This drops to circa 10% if detected late and once the cancer has spread.

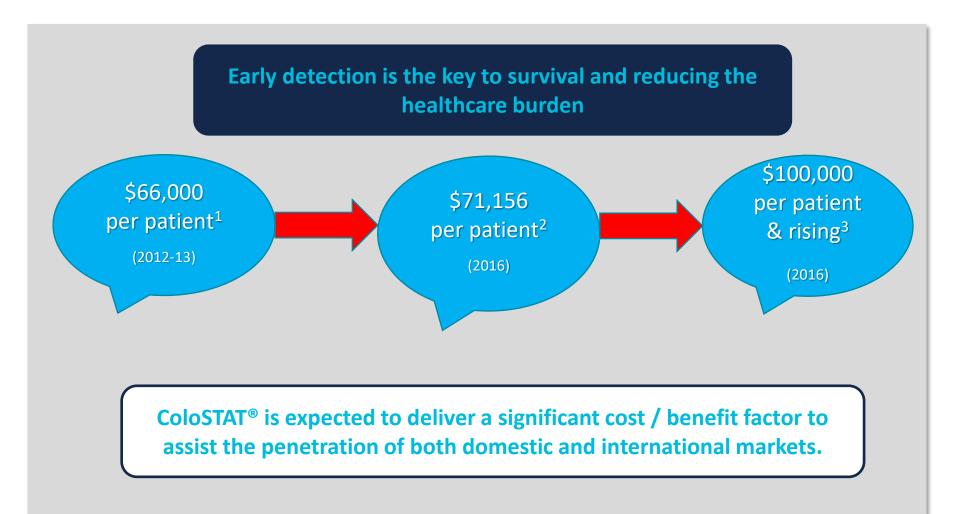
The current standard diagnostic screening test is the Faecal Immunochemical Test (FIT), which only detects blood in the faeces.



RHY's ColoSTAT® detects protein biomarkers in the blood that are indicative of an <u>increased likelihood of presence of colorectal cancer</u> via a simple, mass-screening blood test.



### Late-Stage Bowel Cancer Treatment Costs Are Increasing



<sup>1.</sup> Cancer Council, Pre-budget submission 2012-2013 2. Ananda et al, Asia-Pacific Journal of Clinical Oncology, Vol. 12, Issue 1, pages 33-40; March 2016) 3. St John & Grogan, Asia-Pacific Journal of Clinical Oncology 2016; 12: 7–9)



#### ColoSTAT® - What Is It? How Does It Work?

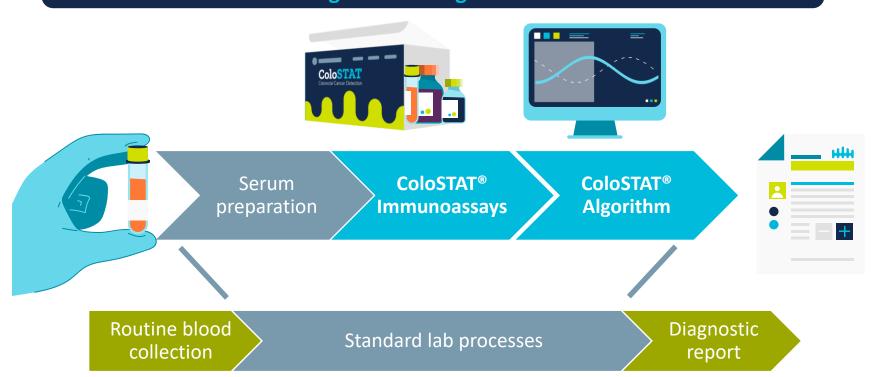
## A simple, accurate, low cost blood test for the early detection of colorectal cancer designed for the global mass market

- Detects protein biomarkers in the blood that are indicative of an increased likelihood of presence of colorectal cancer. (accurate)
- Blood collected via a simple, routine and standard blood draw. (patient friendly)
- ColoSTAT® could be added to the standard panel of referred tests a GP completes for routine and annual check ups. (simple)
- ColoSTAT® will analyse & consolidate individual biomarker results simultaneously, using its developed algorithm, to provide an indication of the likelihood of presence of colorectal cancer. (innovative)
- The result is sent to the patient's healthcare practitioner for review & assessment if further diagnosis is required i.e., colonoscopy. (improved GP/patient relationship)
- ➤ Low cost assay format is designed to integrate with existing pathology lab infrastructure / equipment agnostic. (suitable for the global mass market)



#### ColoSTAT® - What Is It? How Does It Work?

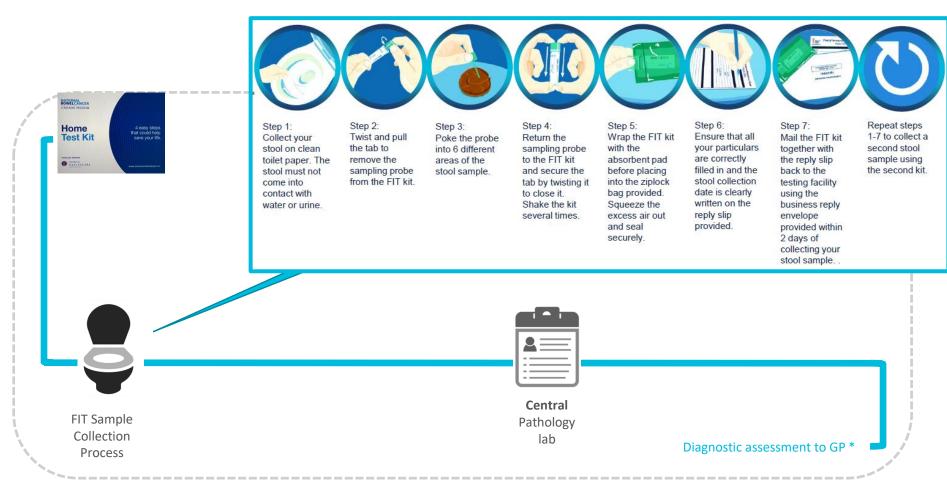
A simple, accurate, low cost blood test for the early detection of colorectal cancer designed for the global mass market



Technology designed to fit with existing pathology infrastructure



### **Current FIT Pathway - Cumbersome And Not Well Adopted**



Multi step faecal collection, packaging over at least 2 days then posting sample back to a central laboratory. Obligation on patient to sample and label correctly and to follow up the result with a GP. Patient can determine if they will have a follow up colonoscopy.

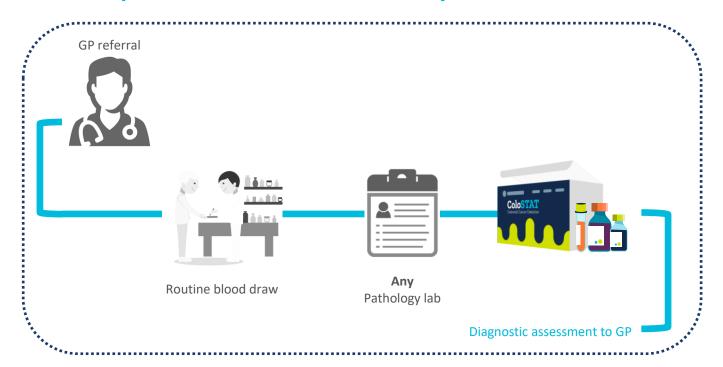


<sup>\*</sup> If the test is completed as part of the NBCSP the result is also sent to the patient.

## ColoSTAT® - Patient Friendly - Increased Compliance

"83% of unscreened participants preferred a blood test over a faecal test" \*

#### Simple & Routine Patient Journey With ColoSTAT®



✓ ColoSTAT® - has the potential to increase screening compliance, saving more lives and benefitting the health system overall. Improves doctor/patient relationship.

<sup>\*</sup> Source: 9. Osborne, J., Wilson, C., Moore, V., Gregory, T., Flight, I. and Young, G. (2012) Sample preference for colorectal cancer screening tests: Blood or stool?. Open Journal of Preventive Medicine, 2, 326-331. doi: 10.4236/ojpm.2012.23047.

### **ColoSTAT®'s - Competitive Advantage**



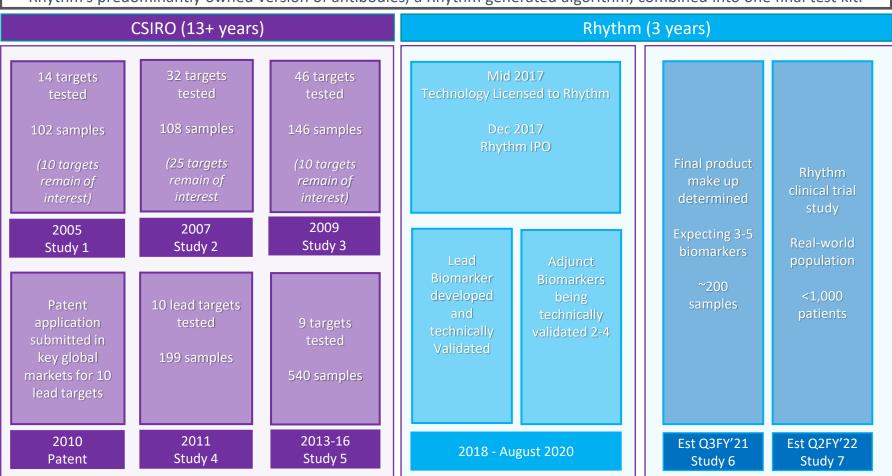
ColoSTAT®'s combination of advantages can potentially drive higher compliance to screening and ultimately save more lives



<sup>\*</sup> ColoSTAT® blood test can be completed at GP clinic during a regular visit

## **ColoSTAT® - Development History**

- ColoSTAT® relies on detecting biomarkers in blood that indicate an increased likelihood of presence of colorectal cancer.
- For over 13 years CSIRO investigated over 68 potential biomarkers until a panel of 10 lead targets remained, using individually sourced commercial test kits.
- Rhythm licensed these 10 targets and began the work necessary to turn ColoSTAT® into a viable asset by validating Rhythm's predominantly owned version of antibodies, a Rhythm generated algorithm, combined into one final test kit.



## Clinical Trial (Study 7) – Performance In A Clinical Setting

detection of CRC relative to	Trial Study Design	End Points
<u>Cohort 2:</u> Participants referred for colonoscopy by their physician to colonoscopy for: ➤ Advanced adenomas.	multicentre clinical trial.  Two cohorts:  Cohort 1: Patients with a diagnosis of CRC who are progressing to surgery.  Cohort 2: Participants referred for colonoscopy by their physician.  Each patient to provide:  ColoSTAT® blood test  Faecal (FIT) test	Performance of ColoSTAT® for detection of CRC relative to colonoscopy (Sensitivity and Specificity).  Secondary: ColoSTAT® performance relative to colonoscopy for:  Advanced adenomas.  Clinically actionable neoplasia.

#### ColoSTAT® Clinical Trial to confirm:

- Performance translates to a clinical setting.
- ✓ Works at least as well as FIT head-to-head.
- ✓ Suitable for mass population screening.

#### Key Recruitment Challenge:

Hospitals maintaining motivated key trial staff members to identify, consent and recruit suitable patients.

COVID-19 exacerbated timelines for ethics approvals, site assessments, hospital governance processes.

#### Improvements:

- Review of protocol and made changes to streamline process.
- Closer relationship with the trial sites.
- ✓ Non-Victorian sites appointed.
- ✓ Strategic move to include more private clinics.
- COVID restrictions softening.
- Newly appointed sites actively recruiting.



### **Study 7 – New Trial Sites Motivated To Recruit**

"The burden of colorectal cancer and the benefits of early detection have been well recognised. The risk of colorectal cancer increases dramatically over 50 years of age, yet the majority of people in this age group remain unscreened. A blood-based diagnostic tool such as ColoSTAT® would likely enable more people to participate in screening and thereby could have a significant beneficial impact on colorectal cancer survival rates." said Professor Clingan OAM, Illawarra Health & Medical Research Institute

"We are excited to be partnering with Rhythm on the clinical trial of ColoSTAT®. A simple blood test like ColoSTAT® is the change the world needs both socially and economically, for colorectal cancer detection. The number of lives that could be saved with this test is significant, especially as it would significantly increase patient compliance and overall screening rates. We are excited to be a part of this journey" commented Jeff Wall, CEO of Northern Beaches Clinical Research.



### **Confidence In Performance Moving Forward**

- ✓ ColoSTAT® **prototype test-kit complete** using Rhythm's proprietary algorithm that continue to improve.
- ✓ Preliminary results from the prototype test-kit **outperform current market standard** (faecal test) and previous CSIRO test work.
- CE Mark application may be submitted post Study 6 (prior to Study 7 completion), subject to data and manufacturing requirements.
- ✓ The clinical trial (Study 7) will fulfil the compulsory requirements for some regulatory approvals (such as in Australia) and support clinical evidence in global markets. It will also provide some head to head data vs FIT.

### **Key Achievements - Delivered In 2020**

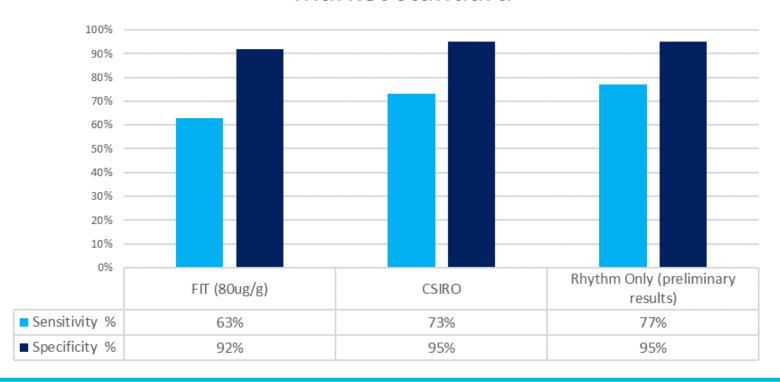
- Technically validated the key lead and four adjunct biomarkers.
- ✓ Appointed additional clinical trial (Study 7) sites.
- ✓ ISO13485 Quality Management System certification maintained.
- Completed reagent development program.
- Commenced high-volume manufacturer selection process.
- ✓ Granting of China divisional patent.
- ✓ Granting of ColoSTAT® trademark in the USA.
- Strengthened Board and aligned management incentive program.
- ✓ Completed approx. \$6m capital raise.
- ✓ Received \$1.1m FY20 R&D tax incentive.
- Commenced design transfer of the prototype test-kit to a high-volume manufacturer.
- Granting of USA patent.

#### None more important than...

- ✓ ColoSTAT® prototype test-kit complete.
- ✓ Preliminary results demonstrate superior performance to faecal immunochemical test (FIT) and prior CSIRO test work.

### **Key Achievements - ColoSTAT® Performance**

# Prototype test-kit results outperform current global market standard



**Sensitivity** is the ability of the test to correctly identify those patients with colorectal cancer, that is, the percentage of people with colorectal cancer who are correctly identified as having illness.

**Specificity** is the ability of the test to correctly identify people who do not have colorectal cancer, that is, the percentage of people without colorectal cancer who are correctly identified as not having cancer.

Source: Fung et al. Blood-based protein biomarker panel for the detection of colorectal cancer. PLoS One (2015) 10 3.

Source: Morikawa et al., Gastroenterology (2005); 129: 422-428



#### **Market Opportunity – Global Screening Numbers**

#### **Screening compliance & opportunity by market**



## Market Likely To Expand Significantly

#### Colorectal Cancer is also prevalent in younger segments of the population

- ✓ Colorectal cancer is the leading cause of cancer related deaths for 30-to-35-year-olds in both males and females in Australia.
- ✓ It is also the leading cause of cancer related deaths for 45-to-49-year-olds in males in Australia.
- ✓ USA Preventative Services Task Force recommends Colorectal Cancer Screening to commence at age 45. Five years younger than it previously recommended, adding circa 20 million patients to the screening population in the USA alone.
- ✓ Reduction of screening age under 50 years of age is expected to occur in all major global markets.



### Where Could ColoSTAT® Value Be Derived From

## Who are the potential payers?

Government – National Screening Program

Government – National/Regional reimbursement

Hospital / Pathology Lab payers

**Private Health Insurers** 

**Patients** 

#### **Simplified Value Story**

ColoSTAT®



**Increased CRC screening rates** 

Because the vast majority of patients prefer a blood test vs tests involving faecal handling



Increased rates of early diagnosis

Greater screening levels equates to greater early detection



**Decreased rates of late stage CRC detection** 

Early diagnosis prevents disease progression in the majority of cases



**Increased survival rates** 

Early diagnosis equates to a survival rate of 90%, this drops to 10% when detected at advanced stages

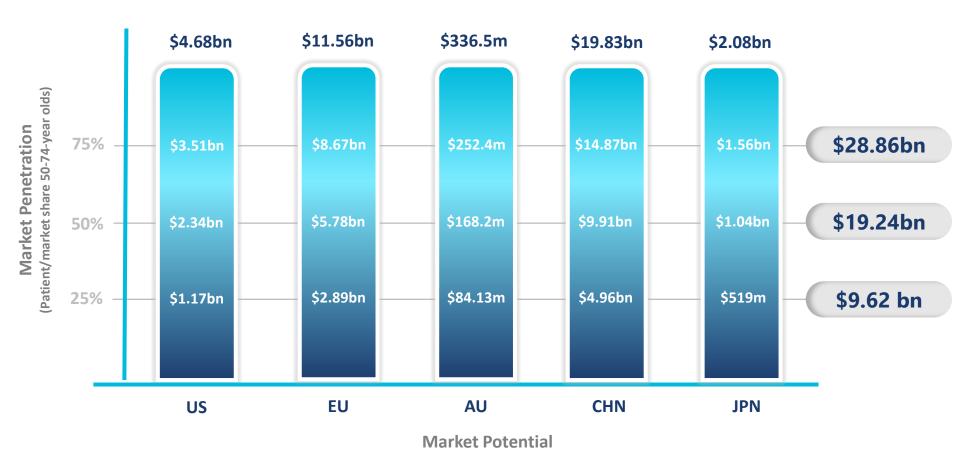


Decreased government / private healthcare expenditure

Late stage CRC involves ultra-high cost treatments



## Potential ColoSTAT® Total Market Size (50-74yr old only)



The colorectal cancer screening market (50-74 population)# across US/EU/AU/CHN/JPN \$38.49bn



<sup>\*</sup>Assumption of \$50 AUD per test. RHY revenue may vary to this estimate #Total screening market = all 50-74 year olds x \$50 AUD

### **Go To Market Options**

# Multiple avenues and market segments reduce risk and support a flexible and scalable business model

#### National Screening Program/MBS Reimbursed

 With its effectiveness and affordability, ColoSTAT® is well suited to mass market screening as a complement / direct replacement for global National Screening Programs led by Government, Health Insurers or GP's.

#### **Private Market**

- ColoSTAT® can be used by GP's or in Hospitals as a diagnostic
- Led by Private Health Insurers, GP's, Hospitals.



#### **Secondary Triage**

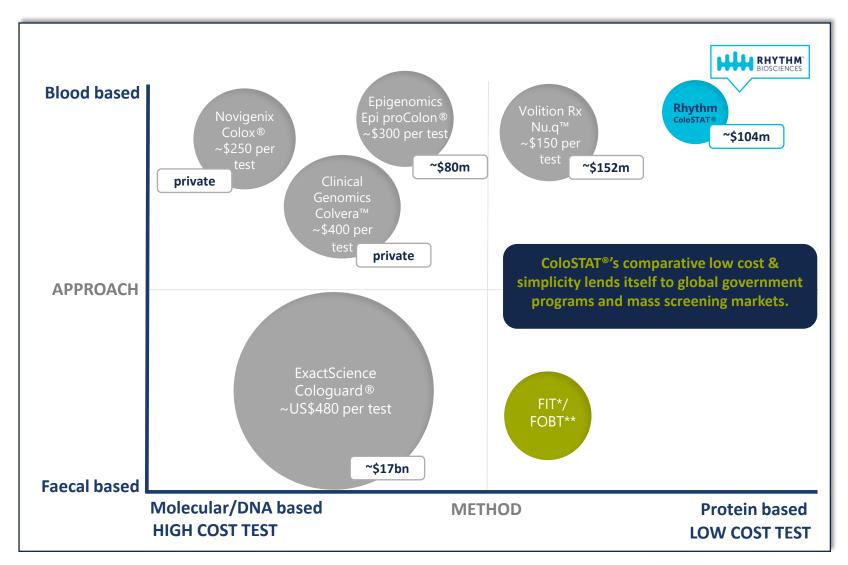
As a transition, ColoSTAT® could be used as a follow up secondary test for those that return a positive FIT test prior to invasive & costly colonoscopy, potentially reducing unnecessary colonoscopies and wait times.

#### **Global Partnerships**

 Partnership & licensing opportunities, joint-venture, market/channel specific deals.
 Co-development potential.



## Competitive Landscape – ColoSTAT®'s Unique Advantage



<sup>•</sup> FIT = Faecal Immunochemical Test



<sup>\*\*</sup> FOBT = Faecal Occult Blood Test

#### IP – Patents Filed In All Major Target Markets

- Licensed from CSIRO
- Worldwide exclusive licence
- Patent wholly owned by Vision Tech Bio Pty Ltd\*
- Expires 2031
- Methods for detecting colorectal cancer covering the combinations of 10 biomarkers
- Additional patents applications and patent extensions expected to be submitted in 2021

Gra	Pending	
<b>United States</b>	France	Brazil
Australia	Germany	India
China (x2)	Italy	
Japan	Luxembourg	
United Kingdom	Netherlands	
Europe	Norway	
Austria	Spain	
Belgium	Sweden	
Denmark	Switzerland & Liechtenstein	
Finland		

<sup>\*</sup>Vision Tech Bio Pty Ltd is a 100% owned subsidiary of Rhythm Biosciences Ltd

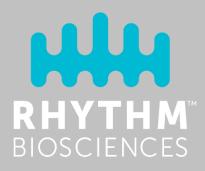


#### Future Value Inflection Points – 2020-2021

With R&D significantly de-risked, anticipated near-term value inflection points on the path to towards commercialisation include:

- > Further clinical trial sites to be appointed to accelerate recruitment.
- Complete design transfer of the ColoSTAT® prototype test-kit and core technology to a high-volume manufacturer.
- > Series of cancerous & healthy blood sample tests on third-party kits (Study 6) on track for completion Q3FY'21.
- Biomarker panel finalisation on track for completion Q3FY'21.
- Clinical trial on track for recruitment completion in 2021.#
- CE Mark application.\*#
- Identify key sales, distribution & diagnostic companies for partnering.





Glenn Gilbert
CEO, Rhythm Biosciences
glenn.gilbert@rhythmbio.com

+61 3 8256 2880

Thank you

www.rhythmbio.com