

# **COMPANY UPDATE**

Adherium Limited (**Adherium** or the **Company**) (ASX:ADR), a global leader in digital health technologies, is pleased to release a company update presentation which is attached to this announcement. The presentation will be used for a series of non-deal roadshows over the coming month.

#### **INVESTMENT HIGHLIGHTS**

- Commercialisation stage digital health company with a clear path to profitability
- Valuable intellectual property portfolio, with a 15 year investment in one of the world's largest databases of respiratory medication data
- Exciting opportunity to leverage proprietary Big Data into new healthcare applications, positioning Adherium for scalable growth
- Focus on growing market share via existing AstraZeneca agreement and accessing new provider and payor markets
- Large unmet market opportunity of approximately U\$\$50 billion across respiratory smart inhalers, other chronic diseases and global healthcare Big Data
- Significant Founder and Board ownership aligns incentives with global institutional ownership
- Strong balance sheet with cash of A\$31.8 million to fund exciting growth opportunities
- De-risked investment proposition revenue-stage with proprietary technology already developed and cleared for market

Garth Sutherland, Founder and CEO, said: "We are encouraged by the strong growth and performance across our Smartinhaler™ platform. The next 6 to 12 months represents an exciting period for the Company as we continue to grow Adherium's market share through our existing agreement with AstraZeneca, and a focus on other partnership opportunities. We are also actively assessing how to monetise our proprietary databases."





#### **ABOUT ADHERIUM**

Adherium (ASX:ADR) is an Australian Securities Exchange listed company which develops, manufactures and supplies digital health technologies which address sub-optimal medication use and improve health outcomes in chronic disease.

Adherium operates globally from bases in the USA, Europe and Australasia. Adherium is a provider of digital health solutions to patients, pharmaceutical companies, healthcare providers and contract research organizations. The Company's proprietary Smartinhaler™ platform has been independently proven to improve medication adherence and health outcomes for patients with chronic respiratory disease. Adherium has the broadest range of "smart" medication sensors for respiratory medications globally.

The Smartinhaler™ platform has so far been used in more than 65 projects (clinical, device validation or other) and has been referenced in 56 peer reviewed journal articles. Clinical outcomes data has proven that the Smartinhaler™ platform can improve adherence by up to 59% in adults and 180% in children and reduce severe episodes by 60% in adults, leading to improved quality-of-life and demonstrating a substantial gain over current best practice treatment. The Company has received FDA 510(k) notifications for clearance to market and CE Marks for its devices and software, which allows it to sell these devices into international markets.

#### Websites:

www.adherium.com www.smartinhaler.com

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# Adherium®

Company Update
October 2016



## **INVESTMENT HIGHLIGHTS**

# Adherium provides valuable exposure to the rapidly growing digital health sector

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# **OVERVIEW**

# Adherium is a global provider of digital health solutions focused on growing revenues and market share

# **About Adherium**

Adherium designs, develops, manufactures and supplies digital health solutions which address suboptimal medication use in chronic disease

# Leading technology for disease management

Adherium's Smartinhaler™
platform is the leading range of
medication sensors for inhaled
medicines used in the treatment of
chronic respiratory diseases

# Clinically proven performance

Smartinhaler™ has been supplied to >65 clinical trials, with 30 new clinical trials ongoing/underway. Independent clinical evidence shows that Smartinhaler™ significantly improves patient outcomes

# Positioned for growth

Adherium is leveraging valuable data from the Smartinhaler™ platform to target other chronic disease areas to achieve its vision of being the largest global provider of digital health solutions





### STRATEGIC VISION

# Long term strategy is to become a global leader in digital health solutions



Increase standard of care by providing medication use data to empower patients, healthcare professionals, and payers in the effective management of chronic disease across the world



#### Market share growth

Grow market share through managed care organisations, payors and new commercial supply agreements



#### Innovation

Invest in developing leading next-generation technology and software for new inhalers and flagship product ranges



#### Sales and distribution

Focus on signing new sales and distribution agreements within the US and EU to drive revenue and market share growth



#### **New markets**

Leverage R&D, market leadership and sales capabilities to drive new revenue streams in other chronic diseases and drug delivery modalities



#### **Big Data**

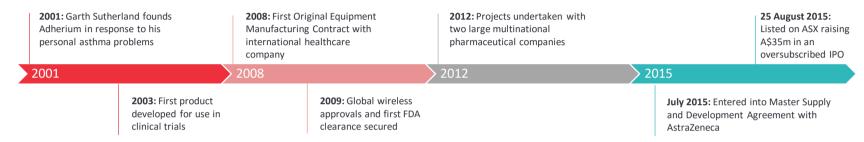
Leverage Adherium's substantial and growing data sets to realise value through data analytics and provision of reports to key channels to market



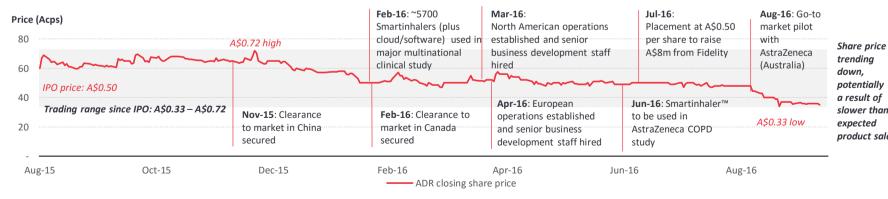
# HISTORICAL PERFORMANCE

# Adherium's share price is trading around all-time lows, despite the significant progress since IPO

#### **Pre-IPO milestones**



#### **Share price performance since IPO**



trending down. potentially as a result of slower than expected product sales



# **CORPORATE**

# Adherium's focus on revenue and market share growth in FY17 is enabled by a strong cash balance

#### FY 2016 financial highlights

**Total revenue** 

\$2.6m

2015: \$2.9m

down 10%

**Gross margin** 

49.1%

2015: 70.6%

down 22%

Cash<sup>1</sup>

\$27.2m

2015: \$3.5m

up 677%

Av. quarterly cash burn<sup>2</sup>

\$1.7m

2015: N/A (Company private)

**Devices sold** 

56,000

2015: 34,000

up 65%

**Devices activated** 

30,187

2015: 5,364

up 463%

#### **Financial information**

Enterprise value	A\$27.4m
Debt (30-Sep-16)	Nil
Cash (30-Sep-16)	A\$31.8m
Market capitalisation	A\$59.2m
Number of shares <sup>3</sup>	169.0m
Share price (25-Oct-16)	A\$0.35

#### Top shareholders4

One Funds Management Australian fund manager	14.2%
Fidelity International Global investment manager	9.7%
I.G. Investment Management Ltd Canadian investment manager	7.1%
Garth Sutherland Founder & CEO	6.7%
K One W One New Zealand venture capital firm	6.5%
Regal Funds Management Australian fund manager	6.1%

<sup>1</sup> Cash was A\$31.8m as at 30 September 2016

<sup>2</sup> Average of last 3 quarters (post-IPO)

<sup>3</sup> As at 30 September 2016, includes escrowed securities

<sup>4</sup> AstraZeneca holds 4.8% via an early investment of US\$3.0 million at IPO

### **BOARD OF DIRECTORS**

# Entrepreneurial founder supported by an experienced Board and management team

#### **Founder of Adherium**



# **Garth Sutherland** *Founder and Group CEO*

- Garth founded Adherium (then Nexus6) in response to his personal asthma management problem
- Prior to founding Adherium, Garth spent 20 years in technology development and commercialization (formerly at Microsoft)
- Secured the first and only global agreement with a multinational pharmaceutical company
- Garth continues to oversee
   Adherium's growth and strategic
   direction as it becomes a global
   provider of digital health solutions
   for chronic disease management

#### **Independent Non-Executive Chairman**

#### **Thomas Lynch**

Mr Lynch has extensive capital markets experience and the internationalisation in the healthcare sector. He was the chair of Icon plc for 22 years, one of the world's largest clinical research companies, and has been involved in listing numerous companies

Appointed 1 September 2016

#### **Non-Executive Directors**

#### **Jeremy Curnock Cook**

Mr Cook was formerly head of the life science private equity team at Rothschild AM in the UK. *Appointed on 17 April 2015* 

#### Prof. John Mills AO

Professor Mills is an internationally-regarded physician, scientist and biotechnology businessman. Appointed on 20 July 2015

#### **Bruce McHarrie**

Mr McHarrie has over 20 years' experience in health and life sciences. *Appointed on 20 July 2015* 

#### **Dr William Hunter**

Dr Hunter is a co-founder of Angiotech Pharmaceuticals and led it through its TSX and NASDAQ listings. He is currently CEO and President of Cardiome Pharma Corp and has an impressive history of commercialising medical device technologies.

Appointed on 17 December 2015

# Bryan Mogridge

Mr Mogridge has been a successful public company director for over 30 years. He currently sits on the Board of Bupa ANZ.

Appointed on 20 July 2015



# THE ADHERIUM TEAM

# Highly credentialed and well-aligned management team with ~8.0% shareholding



Garth Sutherland
Founder & Group Chief
Executive Officer

Garth has spent the past 20
years working for some of
the world's top technology
companies in Europe, North
America and Australasia
including Microsoft and
Gallagher Group



**Rob Turnbull**Chief Financial Officer

Rob has over 20 years' corporate experience, starting his career with PricewaterhouseCoopers where he worked in Auckland, Toronto, and London; and has over 10 years' experience with technology and life-sciences companies.



Ross Bradding Chief Operating Officer

Ross has over 25 years'
experience with international,
top tier banks including
Goldman Sachs, Credit Suisse,
First Boston, and First NZ
Capital. Prior to joining
Adherium, Ross was Chief
Operating Officer (Securities)



Julia Chambers Head of Corporate Development

Julia has over 20 years' experience in the global life science industry, working in sectors such as pharmaceuticals and biotechnology. Julia has worked at Eli Lilly, Genzyme and Callaghan Innovation.



Nigel Devine
Vice President
Product and Development

Nigel has 30 years' experience in the consumer electronics, aerospace and defence sectors and previously worked internationally for companies such as Dyson, Boeing and Next Window



# ADHERIUM'S SMARTINHALER™ PLATFORM

# Proprietary technology and databases support a differentiated product range with proven results

#### Adherium's Smartinhaler™ platform

#### Proprietary electronic measurement device for respiratory market

- Substantial technology advantage
- Easy-to-use hardware device that fits over current prescription inhaler
- Records date and time of inhaler use, and reminds patients when they have missed a dose of medication

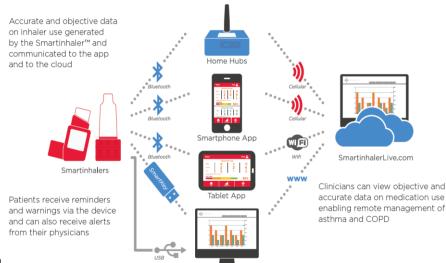
#### Platform architecture drives data-sharing efficiencies and better outcomes

- Data is transmitted from devices into cloud-based servers
- Physicians can remotely monitor and manage patient's adherence, improving patient outcomes
- Patients can monitor their own adherence using smartphone app

#### Data-driven advantage

- Smartinhaler™ solution provides a means of collecting respiratory medication data
- Pharma companies can use Smartininhaler™ data to boost product differentiation and brand loyalty in the face of generic competition
- Smartininhaler™ data helps payors/providers reduce healthcare costs and accelerate healthcare strategy while also improving patient outcomes

#### Smartinhaler™ digital health solution



Patients, parents and caregivers can track their own performance using the Company's proprietary app or via client company apps

Desktop computer



# PROPRIFTARY TECHNOLOGY

# Market proven proprietary technology positioning Adherium for scalable growth

#### Robust clinical outcomes data

Adherium's Smartinhaler<sup>™</sup> platform is the only product available for the digitisation of respiratory medication that can point to robust, independent clinical outcomes data that demonstrates a significant improvement in patient health outcomes

59%个	Improved mean adherence in adults <sup>1</sup>
180%个	Improved mean adherence in children <sup>2</sup>
61%↓	Severe exacerbations <sup>3</sup>

Baseline asthma morbidity score<sup>4</sup>

#### Intellectual property

Adherium has a valuable IP portfolio, comprising international patents and registered designs

- Cost effective, targeted IP strategy, driven by product demand
- Patents currently granted or filed in 5 key jurisdictions (NZ, Australia, US, EU and China
- Designs registered globally in NZ, Australia, USA, EU and China

Patents	10 granted (incl. 2 in USA) 22 pending (incl. 3 provisional)
Registered designs	>70 registered 16 pending



Chan et al (2015, Auckland)

Forster et al (2014, Sydney) – Exacerbations refer to an asthma flare-up, when asthma symptoms start or get worse than usual (requiring treatment)





# **MARKET OPPORTUNITY**

# Adherium is at the forefront of a large unmet market opportunity across multiple verticals

### **Chronic respiratory disease** First target market

- Adherium first target market is the chronic respiratory disease treatment and management sector
- Market for digital dose inhalers estimated to be US\$3.6bn in 2024<sup>1</sup>
- Global sales revenue of US\$22bn (asthma) and US\$14.4bn (chronic obstructive pulmonary disease)<sup>2</sup>
- Adherium is perfectly positioned to meet the needs of this large and growing market with its Smartinhaler™ platform

Other chronic Respiratory Big Data (smart inhalers) diseases US\$30.0bn US\$3.6bn US\$15.0bn

#### **Future market opportunities**

Adherium is also able to leverage its leadership in respiratory disease, and its valuable and growing database to scale into other growing sectors:

#### Other chronic diseases

US\$15bn³ commercial opportunity globally from the application of digital health technologies to other chronic diseases

#### **Big Data**

The impact of data on the global healthcare system is forecast to be a commercial opportunity of US\$30bn 4

<sup>1</sup> Mobi Health News July 2016

<sup>2</sup> Adherium Prospectus (2015)

<sup>3</sup> Goldman Sachs Global Investment Research (June 2015)

<sup>4</sup> Goldman Sachs Global Investment Research (June 2015)

### STRATEGY DRIVERS

# The agreement with AstraZeneca highlighted Adherium's focus on growing market share

## Partnerships and acquisitions following Adherium-AstraZeneca partnership

- In July 2015, AstraZeneca (NYSE:AZN) partnered with Adherium
- AstraZeneca's partnership with Adherium has changed the market landscape
- Global pharma companies with respiratory operations started investing heavily to gain exposure to the lucrative digital respiratory space
- Adherium is focused on new supplementary agreements with pharma companies, while it continues to target the provider and new payor markets as key revenue drivers











#### ASTRAZENECA PARTNERSHIP

# Validating technology through initial commercial partnership with AstraZeneca

#### Partnership with AstraZeneca

In July 2015, Adherium entered into a long term partnership with international pharmaceutical leader AstraZeneca

AstraZeneca is a global biopharmaceutical company listed in the US with a market capitalisation of US\$78.7 billion<sup>1</sup>

AstraZeneca produces Symbicort, the third highest selling respiratory drug globally, with global revenues from Symbicort and Pulmicort of US\$4.4 billion<sup>1</sup>

The partnership is a world-first commercial arrangement combining digital health technology with blockbuster inhaler medications

#### AstraZeneca product development and supply agreement

- AstraZeneca currently purchases Adherium's products through a Master Supply and Development Agreement
- 10 year term (with rolling 12 month extensions)
- Each party retains its respective intellectual property
- Non-exclusive, giving Adherium the discretion to supply its products to other multinational pharmaceutical companies
- Adherium has the right to analyse data derived from the use of AstraZeneca's product in combination with Adherium technology and provide reports/recommendations based on this analysis

~50%

Proportion of revenue contributed by commercial supply agreement with AstraZeneca (with remainder from clinical trials)

463%

Increase in the number of patients using the Smartinhaler  $^{\text{TM}}$  from April 2015 to June 2016, largely as a result of AstraZeneca agreement



## COMMERCIALISATION STRATEGY

# Commercialisation strategy allows Adherium to capitalise on multiple revenue streams to drive growth

#### **Clinical trials**

Provides valuable proof of concept, and a high margin revenue stream

- 89,000 devices sold
- Access to a wide range of potential customers and industries while also generating satellite income



# Pharmaceutical commercial supply agreements Adherium selling the Smartinhaler™ to global pharmaceutical and medical device companies

- Increased adherence drives more sales for the existing products of the pharma and medical device companies
- Smartinhaler™ technology enables product differentiation, helping to increase market share for these companies (especially in the face of generic competition), thereby reducing the impact of any 'patent cliff'



Adherium selling the Smartinhaler™ to healthcare providers (e.g. hospitals and disease management organisations)

- Strong demand from healthcare providers for Adherium's technology
- Access to clinically proven digital health technology is central to helping providers to accelerate health strategy, drive revenue and win market share



#### **Payors**

Adherium to start selling the Smartinhaler™ to US and EU healthcare payors

- Growing demand for preventative electronic monitoring devices to assist in reducing overall healthcare costs, while improving patient outcomes
- Enables transition to SaaS revenue model



# PHARMACEUTICAL COMMERCIAL SUPPLY AGREEMENT MODEL

# Focus on additional agreements, expected to have shorter timelines

Pathway to commercialisation with a large pharma company is now well understood:



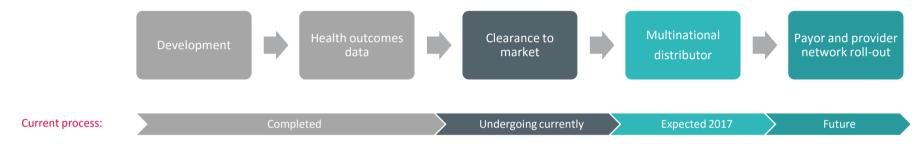
DevelopmentResearch, development, prototyping, testing and validationClearance to marketRegulatory approvals and certificationsClinical trialInitial deployment in a clinical trial setting as a platform for electronic capture of accurate medication use dataSoft commercial launchInitiate commercial roll out in one country to identify and assess the best methods for scaling upExpansion major marketsLaunch in major pharmaceutical markets such as Europe, North America and ChinaGlobal deploymentSmartinhaler™ becomes embedded into the product suite of the customer and is deployed globally



## PAYOR AND PROVIDER DISTRIBUTION MODEL

# Focus on scalable manufacturing and distributor relationships to facilitate global deployment

Well positioned to capitalise on the immediate and growing demand from payors and providers



**Development** Research, development, prototyping, testing and validation

**Health outcomes data** Independent, real world, health outcomes data

Clearance to market Regulatory approvals and certifications

Multinational distributor Partner with leading global distributor to manage payor and provider relationships

Payor and provider network roll-out SmartInhaler™ is deployed in payor and provider disease management programs globally



# POSITIONING ADHERIUM FOR COMMERCIALISATION

# Adherium is now well positioned for rapid commercialisation and growth

#### **Future milestones**

# Payor/provider roll-out Relationship commencement

- Negotiate and sign agreement with leading global distributor partner
- Sign full contract with US hospital network and fully integrate SmartInhaler™ products during FY2017
- Transition to "Software as a Service" (SaaS) revenue model

# **AstraZeneca partnership** *Upcoming developments*

- US COPD study expected to be a precursor to progressive roll-out of Smartinhalers in the US (FDA 510k application filed, targeting FDA approval by end 2016)
- Major product launches targeted for FY2017

# Pharmaceutical partnership opportunities Potential new partners

- Potential new agreements with international pharmaceutical/medical device companies
- Commercialisation projects with new pharmaceutical/medical device partner during FY2017

# Continued R&D Improved technology

- Development of improved next generation miniaturised devices for new inhalers and embedded devices, with enhanced features and sensor functionality to increase data collection
- Embedded design prototype completed in FY2017

# **Big Data**Significant marke

- Opportunity to monetise increasingly valuable data from Smartinhaler™ platform
- Internet of Things pilot device completed by end of FY2017
- Continue developing one of the world's biggest databases of respiratory medication data



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