

adherium 

Hailie®

One of the leading technically
advanced Digital Adherence
Monitoring Systems in the
World



Disclaimer and forward-looking statement

The material contained herein is of a general nature & has only been prepared as a presentation aid. This presentation does NOT contain all of the information that may be required for evaluating Adherium Limited ACN 605 352 510 (Adherium or the Company), its assets, prospects or potential opportunities.

This presentation may contain budget information, forecasts & forward-looking statements in respect of which there is NO guarantee of future performance & which of themselves involve significant risks (both known & unknown). Actual results & future outcomes will in all likelihood differ from those outlined herein.

Forward-looking statements are statements that are not historical facts. Words such as "expect(s)", "feel(s)", "believe(s)", "will", "may", "anticipate(s)" & similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to, statements regarding market size, future results, regulatory approvals, production targets, sales, staffing levels etc.

All of such statements are subject to risks & uncertainties, many of which are difficult to predict & generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information & statements.

These risks & uncertainties include, but are not limited to:

- a. the possible delays in & the outcome of product development
- b. risks relating to possible partnering or other like arrangements
- c. the potential for delays in regulatory approvals
- d. the unknown uptake & market penetration of any potential commercial products &
- e. other risks & uncertainties related to the Company's prospects, assets products & business strategy. This is particularly the case with companies such as Adherium which operate in the field of developing & commercializing medical devices & related services. You are cautioned not to place undue reliance on these forward- looking statements that speak only as of the date hereof, & we do not undertake any obligation to revise & disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.

References to patient number targets to achieve a cash flow positive financial position are aspirational in nature. Additionally, there are a number of factors, both specific to Adherium & of a general nature, which may affect the future performance of Adherium. There is no guarantee that Adherium will achieve its stated objectives/milestones, that any of its forecasts will be met or that forward-looking statements will be realised.

Investment Highlights



Advanced product portfolio

Global leader in the provision of integrated digital health solutions and connected respiratory medical device. **12 US FDA (510K)¹** cleared inhalation sensors on market



Market size

Asthma costs the US healthcare system **US\$82B²** and COPD **US\$31.3 billion³** per annum – with vast, measured improvements in patient exacerbations with the use of Adherium's technology.

- > Total 20-year direct costs associated with uncontrolled asthma are estimated to be **US\$300B⁴**
- > Projections of national medical costs attributable to COPD are reported to increase to **US\$60.5B⁵** in 2029.



US Market Penetration

Focused plan to scale up manufacturing, and sales via established pharmaceutical and payor groups (hospitals, medical groups). Drug-agnostic sensors with broad coverage of top **20⁵** US inhaler brands.



Credentialed team

Operations team includes respected global leaders in the development and sales of respiratory health products, supported by a world-class Board of Directors.

adherium 

1. FDA 510(k) searchable database

2. Nurmagambetov, T, et al. The Economic Burden of Asthma in the United States, 2008-2013. Annals of the American Thoracic Society 2018 Mar 1. doi: 10.1513/AnnalsATS.201703-259OC

3. Mannino, David M. et al. National and Local Direct Medical Cost Burden of COPD in the United States From 2016 to 2019 and Projections Through 2029. CHEST, Volume 0, Issue 0 - In-press

4. Yaghoubi M, et al. The Projected Economic and Health Burden of Uncontrolled Asthma in the United States. Am J Respir Crit Care Med. 2019 Nov 1;200(9):1102-1112. doi: 10.1164/rccm.201901-0016OC. PMID: 31166782; PMCID: PMC6888652.

5. IQVIA US Data - Top 20 US 2021

Unmet Medical Need

Technology-led drug adherence, measured
benefits in respiratory health outcomes

adherium 



Unmet Medical Need Asthma and Chronic Obstructive Pulmonary Disease (COPD) Patients*



Asthma **\$82B¹**
cost on Healthcare
system, COPD **\$ 31.3B²**



21M³ American
adults have asthma
and **4.8M⁴** children:
(total 25.8M)



4.9M¹¹ asthma
doctor visits/yr
15.4M⁹ COPD doctor
visits/yr



939,000¹¹ asthma
ER visits/yr
1.5M⁹ COPD ER
visits/yr



94,560¹² asthma
hospitalizations/yr
726,000⁹ COPD
hospitalizations/yr



Biologics **\$6.2 billion**
in 2022 projected by
2031 to be **\$19.2**
billion⁵



US Center for
Disease Control:
10 people die of
asthma each day⁶
in the United States



COPD 3rd leading
cause of death
in the world, **over**
9,000 people die of
COPD each day⁷



14.8M⁸ people
diagnosed with
COPD, another
12m undiagnosed



There is **no cure¹⁰** for
COPD or Asthma



Unmet Need

Factors contributing to suboptimal adherence in asthma and COPD



Medication

- > Complex regimen
- > Multiple inhalers
- > Inhaler technique
- > Efficacy/time to onset
- > Side effects (and fear of)
- > Cost



Unintentional

- > Age-related factors
- > Forgetfulness
- > Misunderstood directions
- > Comorbidities
- > Health literacy



Intentional

- > Perception of treatment/illness
- > Denial/anger about disease
- > Inappropriate expectations
- > Dissatisfaction with HCPs
- > Cultural/religious issues



Specifically, **high adherence $\geq 80\%$** to asthma controller therapy, significantly reduced risk of exacerbations, ER visits and hospitalizations, and positive impacts on asthma-related mortality^{2, 6, 7, 8, 9}

Feb. 27, 2023 / Cleveland Clinic
How smart inhaler technology can help people with asthma and COPD¹

In one of the first-of-its-kind outcome studies, Cleveland Clinic researchers found that the use of electronic inhaler monitoring, in combination with a disease management program, is associated with reduced healthcare utilization in patients with chronic obstructive pulmonary disease (COPD).

35% reduction in hospitalizations¹

Reduced hospitalizations
(\$7,500/visit)²

726,000 COPD hospitalizations/yr³


Equivalent to **\$5.4B**

Potential savings of **\$1.9B**
(35% reduction)

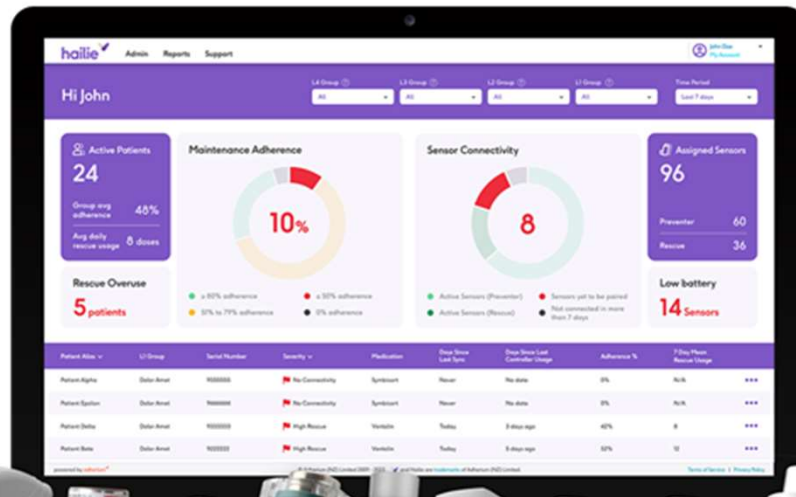


1. How Smart Inhaler Technology Can Help People With Asthma and COPD. [Link](#)
2. Overview of Hospitalizations among Patients with COPD, 2008 (ahrq.gov)
3. May SM, et al. Burden of chronic obstructive pulmonary disease: healthcare costs and beyond. Allergy Asthma Proc. 2015 Jan-Feb;36(1):4-10. doi: 10.2500/aap.2015.36.3812. PMID: 25562549; PMCID: PMC5554331. [Link](#)





Drug agnostic sensors (12¹ Hailie Adherence Devices)



Hailie Adherence device covers **90% of US top 20** inhaler medications



Solution

Adherium's Digital Adherence Monitoring System (ADAMS)



1. FDA 510(k) searchable database

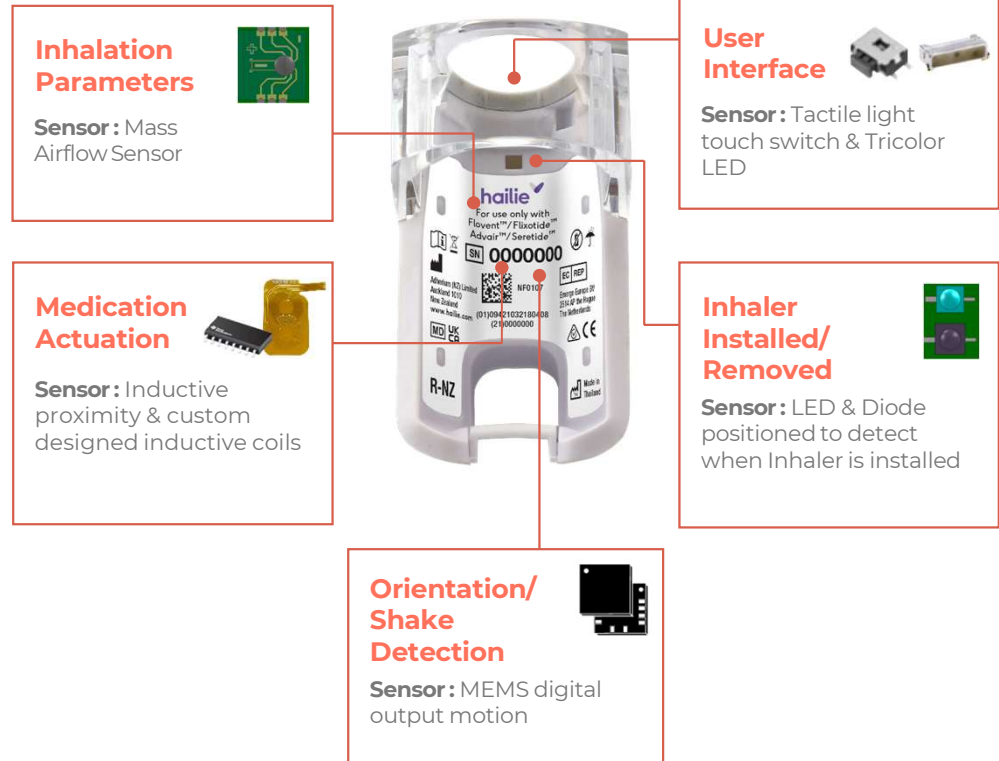
Confidential ©Adherium 2024

What makes us one of the leading technically advanced Digital Adherence Monitoring Systems in the world

Our Sensors

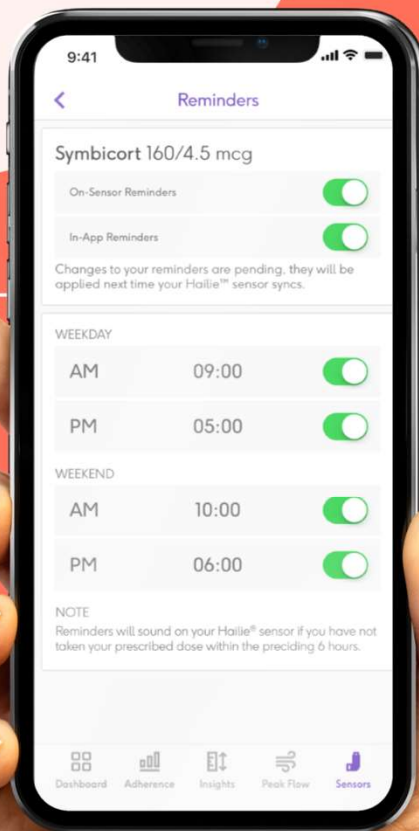


Hailie® Sensor includes the following



Along with Hailie® standard parameters including time/date stamp

Hailie® App



Dashboard



Adherence

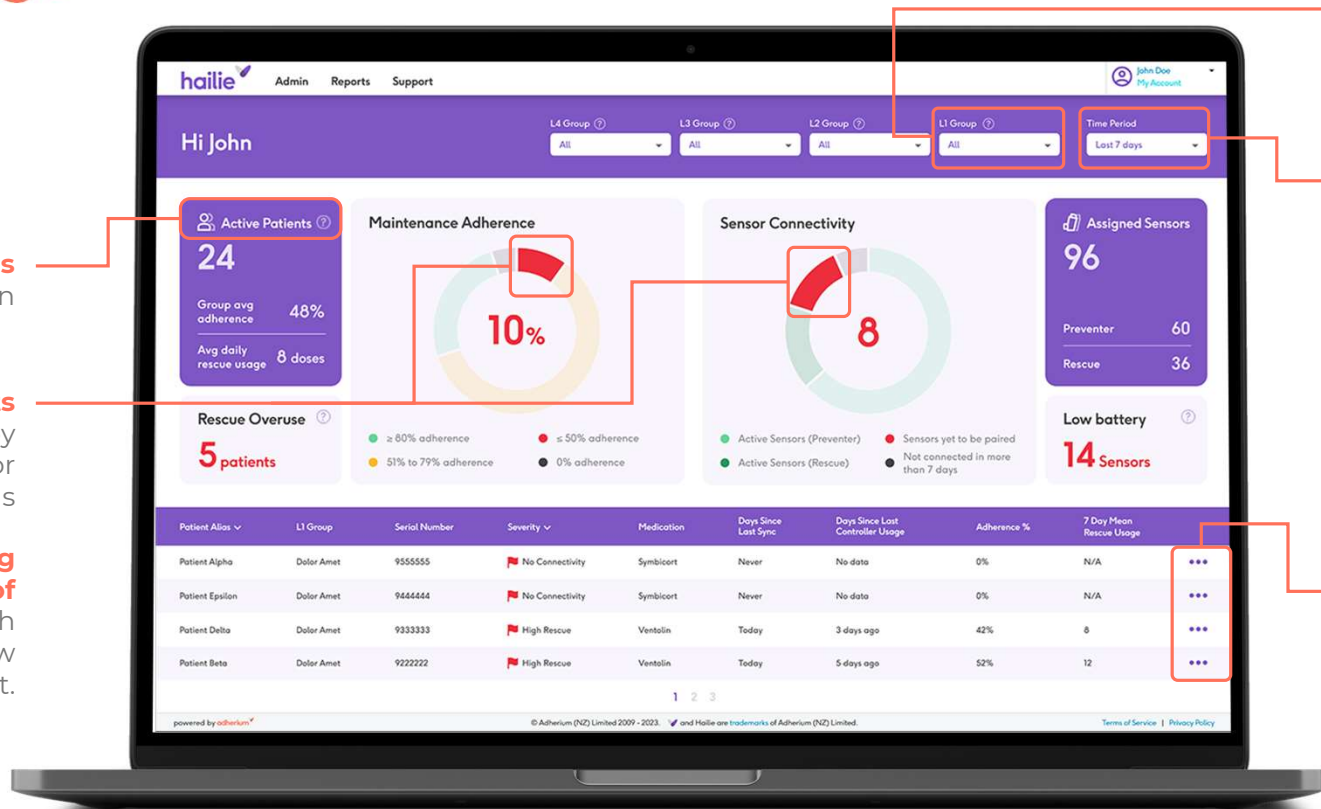


Insights



Reminders settings

Hailie® Portal Patient Triage Dashboard



Click on the **info icons** for a description

Click on the **hotspots** to filter patients by medication use or sensor status

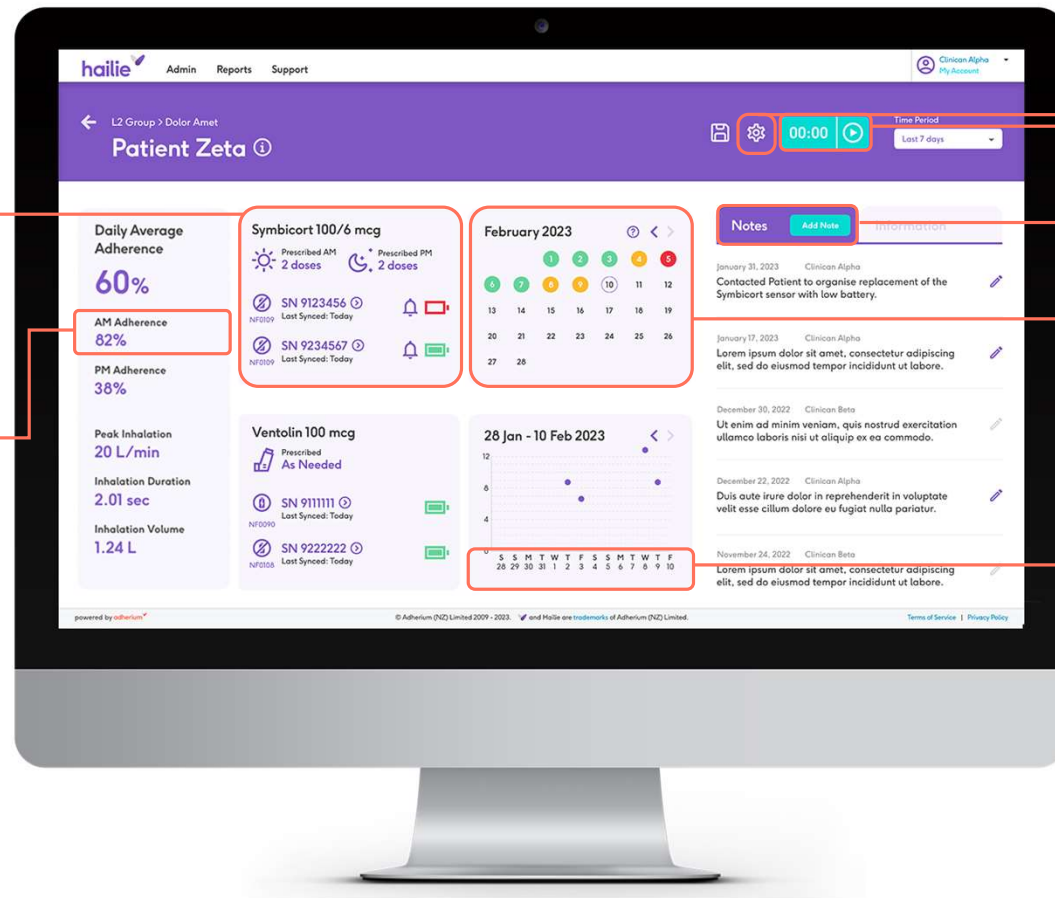
Automatically **sorting of patients in terms of risk**. Patients with high rescue use and low adherence feature first.

Choose the **clinical group** of interest

Choose the **time-period** of interest

Click on the **patient of interest** to view and manage the patient

Hailie® Portal Patient Management Dashboard



Prescription and
sensor status

Medication use and
inhalation data

Click to edit
patient details

Timer logs
clinical time

Notes tab
to capture
clinical notes

Adherence
Calendar

Rescue
daily totals

US Market Penetration Strategy

Experienced team,
primed for growth

adherium 



Improving health
outcomes and **quality
of life for patients**

adherium 



Targeted channels in stages Phase 1: Where we were

•○○



Clinical trials

- > Pharmaceutical industry
- > Clinical Research Organizations

Development of the adherence **sensor systems**
for Pharmaceutical Company's Clinical Trials



Targeted channels in stages

Phase 2: Where we are

○○○



Medical groups

- > Allergy & Immunology Practices
- > Pulmonary Practices
- > Primary Care Practices



Hospital Systems

- Large US hospital networks
- > Commercial
 - > Not-for-profit
 - > Government

Allergy Partners¹

ALLERGY PARTNERS[®]

- > Largest US allergy & asthma practice based in North Carolina
- > Over 300,000 asthma patients across 140 sites in 20 states
- > First patients³ onboarded Sep'23
- > Hailie platform deployed to enable scaling

SENTA Partners²



- > Major premier medical asthma & allergy specialty practice based in Georgia
- > 71 locations in 6 states
- > 100,000 asthma patients
- > First patients⁴ onboarded Nov'23



3,800 physicians

9,300 affiliated physicians

Covers **1 million** people

33 hospital systems

59,000 employees

Standard of care



1. Allergy Partners PLLC: About | LinkedIn
2. SENTA News & Video (sentapartners.com)
3. www.adherium.com/investors/#announcements 25 September 2023

4. www.adherium.com/investors/#announcements 22 November 2023
5. About (intermountainhealthcare.org)

Hear from our customers and patients

Patient testimonial

Our 8-year-old daughter had **two exacerbations in the year before we started using Hailie**. We've been using Hailie for nearly a year and a half now, and **we haven't had any exacerbations.**

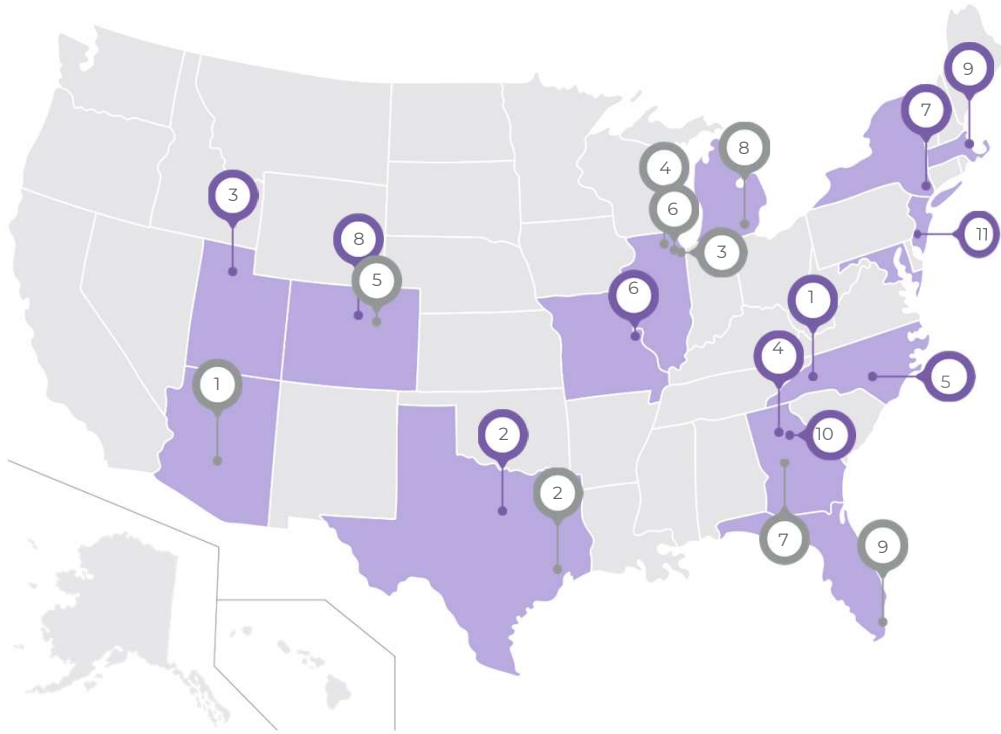
John G.

Dr. Bill McCann

Allergy Partners
Chief Medical Officer



Hailie® Partnerships



Source: ADR management

Partners already using Hailie

- | | |
|---|--------------------------|
| 1 ALLERGY PARTNERS | 7 Montefiore |
| 2 SENTA | 8 National Jewish Health |
| 3 Intermountain Healthcare | 9 NUVOAIR |
| 4 rimidi | 10 Alliance TECH MEDICAL |
| 5 UNC HEALTH. | 11 DULCIAN HEALTH. |
| 6 Washington University in St. Louis SCHOOL OF MEDICINE | |

Current discussions with prospective partners include

- | | |
|--|---|
| 1 ALLERGY ASTHMA & IMMUNOLOGY ASSOCIATES, LTD | 6 Endeavor Health. |
| 2 THE ALLERGY CLINIC HOUSTON ALLERGY AND ASTHMA CLINIC | 7 LANGFORD ALLERGY, LLC |
| 3 Ann & Robert H. Lurie Children's Hospital of Chicago | 8 MICHIGAN MEDICINE UNIVERSITY OF MICHIGAN |
| 4 UNIVERSITY OF ALLERGY AND ASTHMA BUSINESS CENTER | 9 UHealth UNIVERSITY OF MIAMI HEALTH SYSTEM |
| 5 Children's Hospital Colorado | |

Adherium's Hailie® Platform enables utilisation of RPM and RTM CMS reimbursement code sets

For Illustrative Purposes Only for Eligible Patients



One-time initial set-up and patient education

RPM #99453

RTM #98975

\$19.65



Device supply and data transmitted from device (billable monthly)

RPM #99454

RTM #98976

\$46.50



Clinical staff review (20min; billable monthly)

RPM #99457

RTM #98980

\$48.13



Clinical staff review (additional 20min; billable monthly up to 3 times)

RPM #99458

RTM #98981

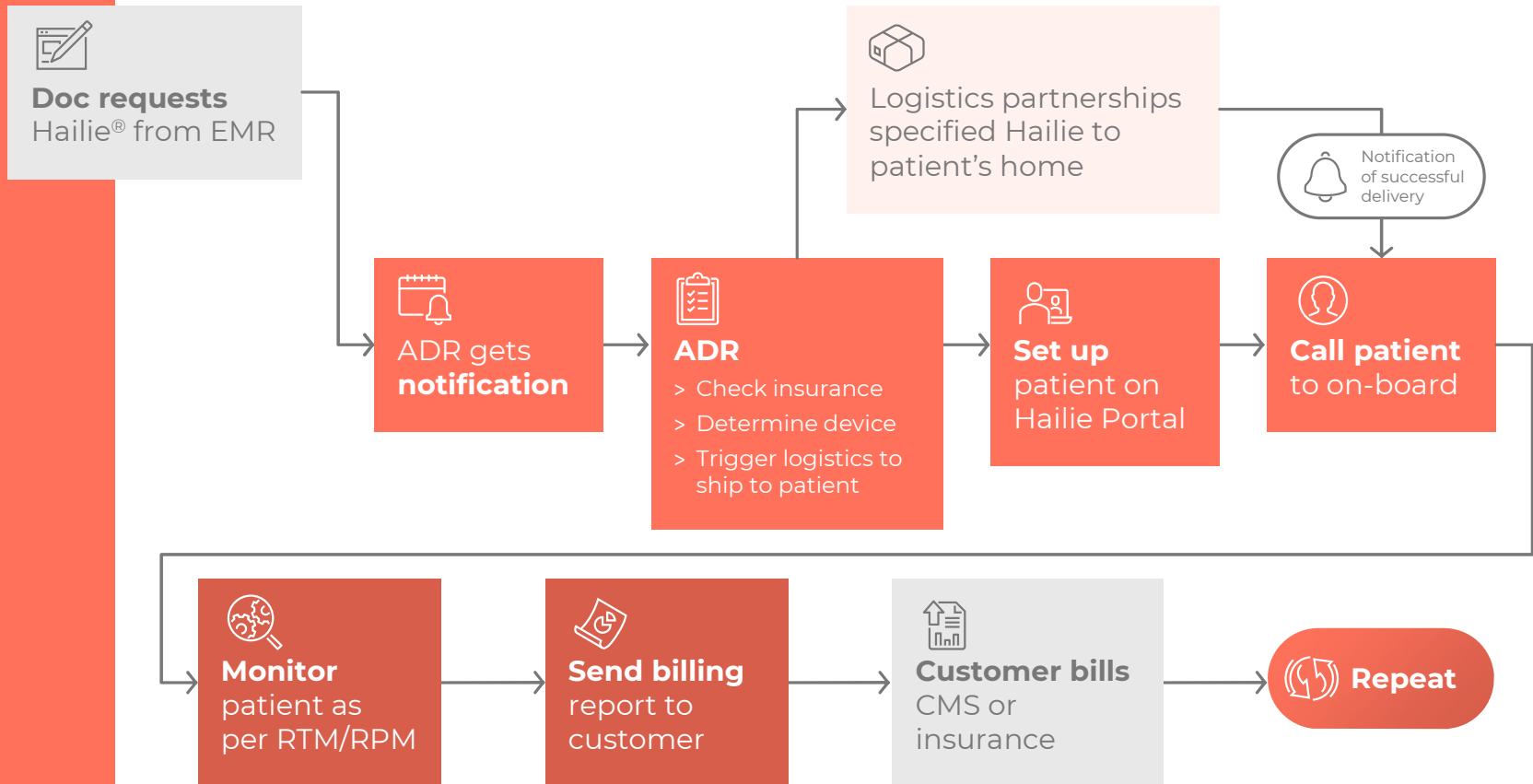
\$38.64



In total approximately **\$114.28 to \$152.92** in initial month; **\$94.63 to \$133.27** monthly thereafter; **\$1155.21 to \$1618.89** per year; Adherium charges: \$600/patient/year

*CPT 99454 Descriptor per CMS: Remote monitoring of physiologic parameter(s) (e.g., weight, blood pressure, pulse oximetry, respiratory flow rate), initial; each 30 days. Reimbursement shows 2022 National Rate for non-facility sites. Actual rates vary by Provider & depend on site-of-care. Personal time spent by the billing physician can also be billed instead of 99457, for up to 30 mins of time using 99091 @ \$56.41. Separate codes exist for remote monitoring of blood pressure & for mental health services. SOURCE: CMS Physician Fee Schedule, <https://www.cms.gov/apps/physician-fee-schedule/search/search-criteria.aspx> (accessed Jan 12 2022); CMS Final Rule CY22 (Federal Register)
*All values in US dollars

“One Button” Model



Targeted channels in stages: what's in it for me?

Phase 3: Where we are going

○○●



Pharmacy benefit managers (pbms)

- > CareMark
- > Express Scripts
- > OptumRx
- > Humana



Healthcare payers⁵

- Government payers
- Private health insurance
 - > United health group **51m**
 - > Elevance Health **47.5m**
 - > Centene **27m**
 - > Aetna **24.4m**
 - > Cigna **18m**



Value-based payment incentives

- > Asthma **\$82b¹** cost on healthcare system
- > **21m²** American adults have asthma and **4.8m³** children for a total **25.8m** asthma patients
- > Hailie reduces exacerbations, less doctor visits
- > Hailie reduce ER visits **(\$2,200/visit)⁶**
- > Hailie reduce hospitalizations **(\$7,500/visit)⁷**
- > Reduce biologic use by **50%: biologics** (\$35,000/yr)
 - > 63% patients had suboptimal adherence and were given biologics⁴

Optum Rx[®]

CVS
caremark[™]

Humana

EXPRESS SCRIPTS[®]

aetna[™]

Anthem[™]

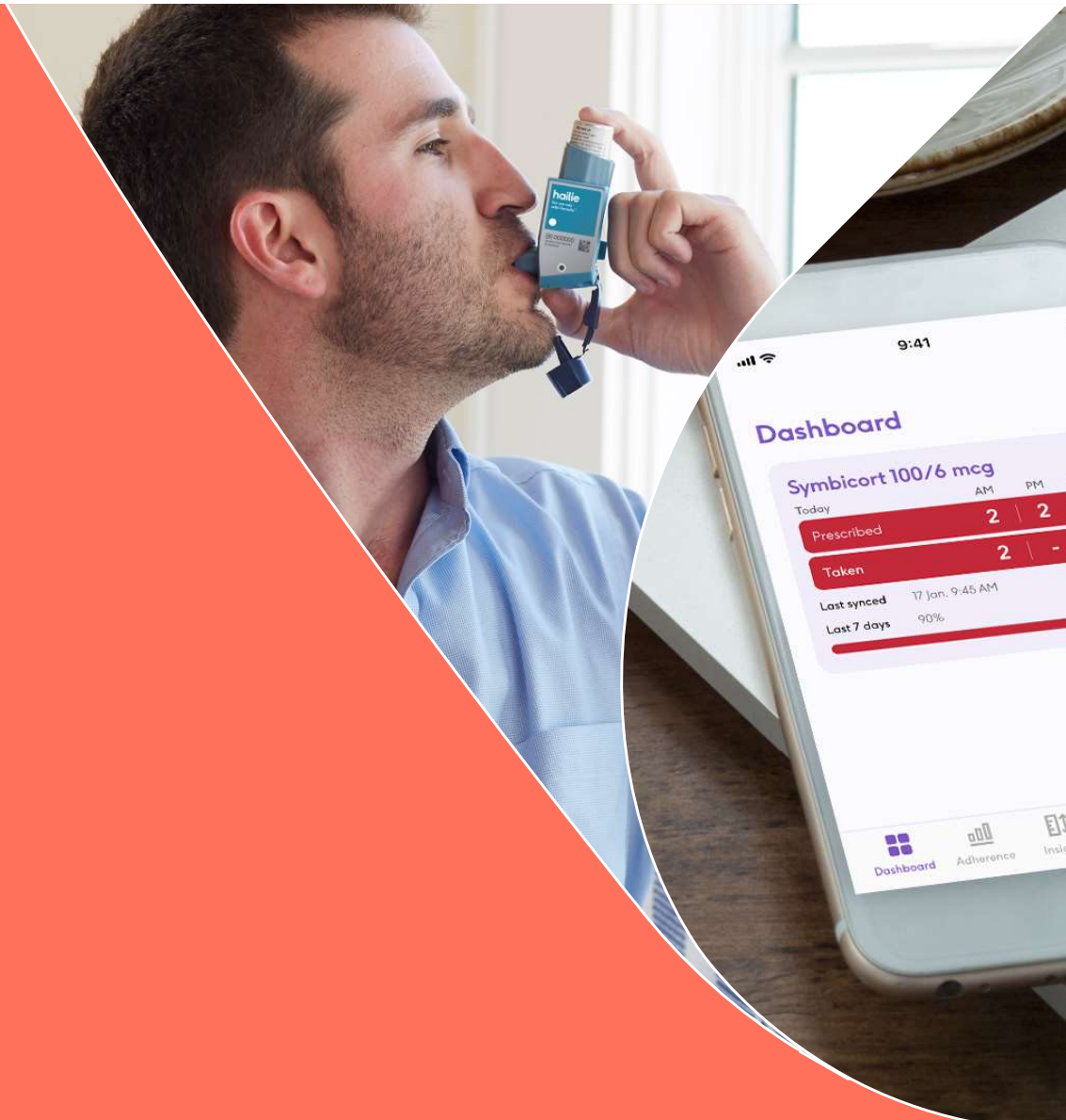
United
Healthcare

cigna
healthcare[™]

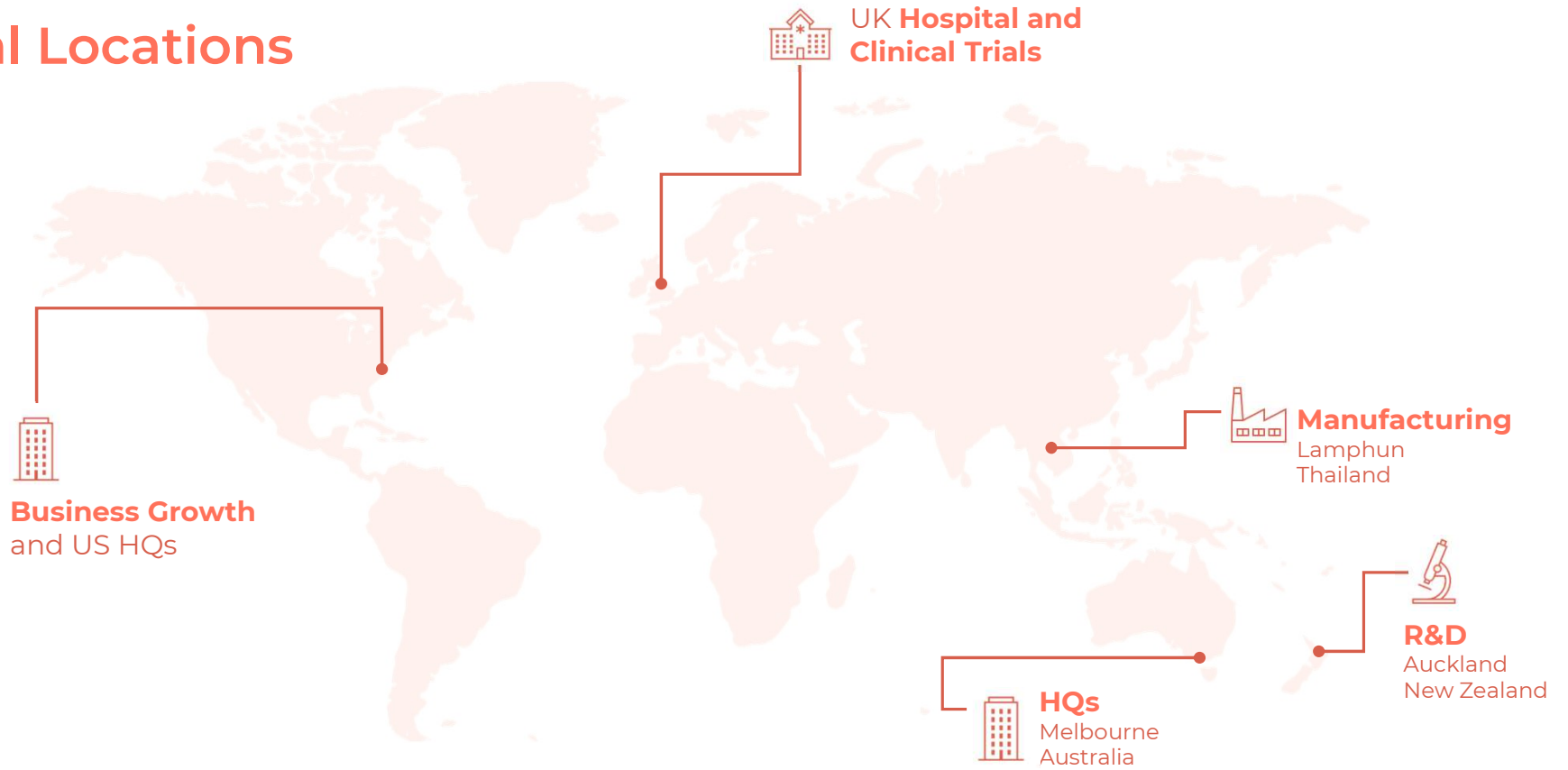
Highly Credentialled Team

Primed for growth

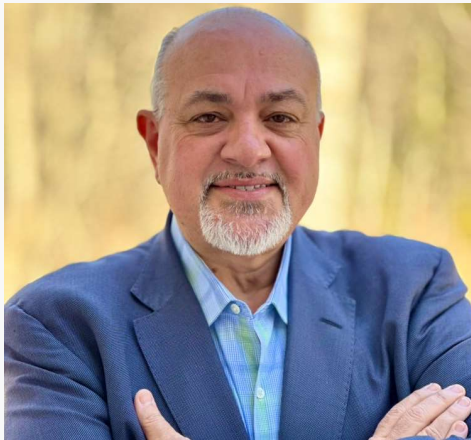
adherium 



Adherium Global Locations



New CEO



Adherium recently announced the appointment of a new Chief Executive Officer (CEO), **Dr Paul Mastoridis** – an accomplished pharmaceutical executive with more than 25 years' experience in the respiratory health sector.



It is a combination of incredibly motivating factors of **'right time, right market conditions, right knowledge, right network'** that have motivated me to join the Adherium team – as it is here, in the company of dedicated professionals with world-leading technology at our fingertips, that I can focus all the moving parts of what I set out to achieve in the asthma and COPD market, which in simple terms, is to use intelligent digital technologies to improve, and even save, patient lives.

Dr Paul Mastoridis
Adherium CEO

Highly experienced leadership team



Dr. Paul Mastoridis

Chief Executive Officer

- > +25 years' experience in the pharmaceutical industry, pioneering and leading digital solutions in asthma and COPD management
- > Executive positions at Novartis, Mylan, Angiotech, & Schering-Plough
- > Patented first artificial intelligence (AI) technology to diagnose asthma from COPD delivering superior outcomes to traditional diagnostic methods
- > Co-developed the first smart technology adherence device- a first generation concept which was subsequently approved and marketed in 18 countries



Francis White

Vice President, Global Business Development

- > >30 years experience in Digital Health & Medical Device commercialisation, creating & building successful teams
- > Executive positions in Medtronic, Olympus Medical & Vice President, AliveCor Ltd, EMEA & OUS globally



Daniel Kaplon

Chief Financial Officer

- > Chartered Accountant with 25 years experience working in ASX-listed & private entities in healthcare, health technology, manufacturing & co-founded two medical device companies
- > Honours degree in Commerce, business degree in Transport & Logistics Management, & a Master of Entrepreneurship & Innovation (MEI)



Chris Leigh-Lancaster

VP, Product & Technology

- > 25 years product development, commercialisation and AI across international medtech, consumer-tech, and agtech markets
- > Led startup and scale-up organisations in Australia and New Zealand,
- > Development and commercialisation of multiple award-winning products



Tara Creaven-Capasso

Vice President, Quality, Regulatory & Clinical Affairs

- +25 years US FDA and international development and commercial experience in the Digital Health, Pharmaceutical and Medical Device sectors
- Market clearance/approvals of over 70 products.
- Built and led teams with proven track-record successes.
- Held executive leadership, board, & advisory positions for government, private & listed entities.



Cassandra Thomas

Vice President, People & Culture

- > 25+ years experience in Operations and HR across a number of sectors, including property, medical, manufacturing and technology.
- > Executive positions in national and multi-national companies in Australia, New Zealand and the Middle East.
- > Experience ensuring that organizations are able to attract top talent, build a productive and motivated workforce and realize the full potential of their employees.

Highly experienced leadership team



John Giszczak
Director, Business Development

- > 18 years of healthcare experience including over a decade leading commercial teams in medical devices, digital health and healthcare services before first beginning career in international public health.
- > Successful track record building commercial partnerships with leading academic medical centers, US federal & state government customers, large US pharmacy chains & other healthcare companies.



Luke Allera
Director, Strategy and Sales Operations

- > 14 years of healthcare experience leading operations and strategic partnerships in medical devices, digital health, and remote patient monitoring.
- > Successful track record of launching and implementing high-touch services for top medical practices in the US to drive patient adherence, improve quality of care, and increase customer retention



Nigel Devine
Vice President Production & Development

- > +40 years' experience in manufacturing, engineering and operations.
- > Senior and Executive positions with a number of technology companies including OSCMAR International Ltd, Cubic Defense (NZ) Ltd, Boeing (USA), Dyson Ltd (Malaysia), and NextWindow Ltd (NZ).



Nancy She
Head of Supply Chain/ Procurement

- > +20 years of electronic manufacturing experience specialized in supply chain, sourcing, and procurement.
- > Prior to joining Adherum, led a team across New Zealand and Singapore to manage global inventory, leading the S&OP process, production planning, procurement/ sourcing, and shipping/ logistics at NextWindow.



Zoe Park
Head of Software

- > Over 20 years' experience in the dynamic realm of software development.
- > Previous experience at renowned companies, such as Samsung, KT, ETRI and Microsoft in South Korea.
- > Since 2014 has contributed her skills to the Australian tech scene, previously working with Tunstall Healthcare.



Santhosh Varghese
IT Systems Manager

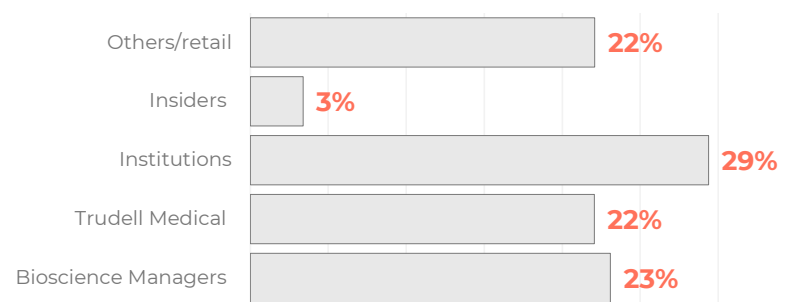
- > +15 years' experience in managing IT Systems and Operations for electronics and healthcare industries.
- > Certified AWS Solutions Architect and Microsoft Solutions Associate.

Corporate Snapshot

Capital Structure¹

Share Price	\$0.029
Shares on Issue	340.0m
Cash	\$3.14m
Net Debt	Nil
Market Cap	\$9.86m
Enterprise Value	\$6.72m

Ownership³



Experienced and Proven Board²

Member	Description
Lou Panaccio Independent Non-Executive Chair	Mr. Panaccio has extensive experience in the life sciences sector at the executive and board level. He is currently a director at Avita Therapeutics, Sonic Healthcare, VGI Health Technology, NeuralDX and Haemokinesis.
Jeremy Curnock Cook Independent Non-Executive Director	Over his 40-year career, Mr. Curnock Cook has specialised in creating value in emerging biotech enterprises. He is currently Managing Director of BioScience Managers and sits on the board of Avita Medical, Rex Bionics Pty, Summatix Pty Ltd, and Sea Dragon Ltd.
George Baran Non-Executive Director	35 years in the medical device industry and serves as Executive Chair of the Trudell Medical Limited Board of Directors as well as being a significant shareholder. Mr. Baran is a Director of Sensory Technologies, Mozzaz Corporation, and Sky Medical Technology Inc.
Bruce McHarrie Independent Non-Executive Director	Mr. McHarrie is currently an independent director and consultant with over 25 years' experience in the health and life sciences sectors. Mr. McHarrie is currently an advisor to BioScience Managers and an independent consultant.
William Hunter Independent Non-Executive Director	Dr Hunter has extensive experience in commercializing medical device technologies. He is currently President and CEO of Canary Medical Inc, Director of Rex Bionics and Industry Expert Advisor for BioScience Managers.

Thank you

adherium 

