

# *respiri*



World first Digital Wheeze  
Detection Technology  
for the Management  
of Asthma

An Australian owned company  
with Israeli & Australian technology;  
manufactured in China





# RESPIRI LIMITED

## RESPIRI LIMITED

One of the few medical device companies globally with the leading edge technology to participate in the remote monitoring of chronic disease symptoms. Respiro has the world's first digital wheeze detection technology for the management of asthma.

Its affordable consumer product, the AirSonea® Wheeze Monitor, is an over the counter remote monitoring product not reliant on doctor prescriptions that most companies in this sector require for revenue. It has a large global target market of parents and carers of children who cannot use lung function tests.

Health conscious consumers are rapidly embracing patient self-management and remote monitoring with smartphones that provide the growth engine for the company's AirSonea product.

The company's Acoustic Respiratory Monitoring (ARM™) algorithm technology remains the core technology in its multi-product portfolio and has been validated in 14 research studies published by world leading physicians and scientists.

# RESPIRI CORPORATE SNAPSHOT

Capital Structure	
ASX code	RSH
Shares on issue	281.6mil
Unlisted options (various ex. prices)	15.8mil
Share price (last sale 29 April 2016)	3.4 cents
Market capitalisation	\$9.6 m
6 Monthly rolling turnover	8.0mil shares

Share Register	
Top 20 shareholders	37.95%
Substantial shareholders: Investment Holdings Pty Ltd	17.05%
Total number of shareholders (4 <sup>th</sup> September 2015)	4,400

Board of Directors	
Leon L'Huillier	Executive Chairman
David Ashmore	Non-Executive Director
Ross Blair-Holt	Non-Executive Director
Tim Oldham	Non-Executive Director
John Ribot-de-Bresac	Non-Executive Director



# THE HEALTH & WELLNESS REVOLUTION

## Devices and apps are empowering patients.

Consumers are demanding greater choice, more personalised care and a larger role in health management.

The **Respiri customer** owns a smartphone, a smartwatch and a Fitbit. They are monitoring their heart rate, their blood pressure, their steps, their food intake, their sleep... their life.

Now, asthma sufferers can just as easily monitor their symptoms with AirSonea®, the over-the-counter digital solution for chronic disease management in the health & wellness revolution.





# RESPIRI AT FOREFRONT

# The explosive field of digital health



## First Wave: Fitness & Wellness Devices

Rapid consumer adoption of wearable sensors and smart watches which produce data related to physical activity, although of limited clinical value



## Second Wave: Digital Health Platforms for Complex Diseases

Includes the monitoring of symptoms and behaviour in chronic disease management, such as wheeze detection and measurement in asthma, glucose monitoring for diabetics



## Third Wave: Big Data for Health & Hospital Systems

AirSonea® can partner with health systems, medical and data professionals to enable the capture of asthma data.

# INVESTMENT CASE SUMMARY

## Substantial value creation potential now

- New board, management and technology partners have transformed the business
- Asthma is a major global problem that is poorly managed & controlled
- Wheeze is the most common symptom of asthma\*
- Respiri has leading edge core technology to detect and measure wheeze
- No known competition
- Home monitoring via smartphones is a key driver of growth
- Quickly scalable business
- Clear pathway to monetise business

*\* Global Asthma Report*

# KEY MILESTONES SINCE NEW BOARD

## MILESTONE 1: BUSINESS OPERATIONS TRANSFORMATION

1. Improved corporate governance and appointed global audit firm.
2. Business structure dramatically simplified, \$3 million pa taken out of management and staff costs.
3. Cash burn reduced from over \$900,000 per month to a forecast underlying burn of around \$200,000-\$240,000 per month.
4. Consolidated intellectual property portfolio.
5. Appointed leading globally respected scientific advisors.
6. Established improved relationships with leading clinicians, healthcare professionals and peak asthma bodies in Australia and overseas.

# KEY MILESTONES SINCE NEW BOARD

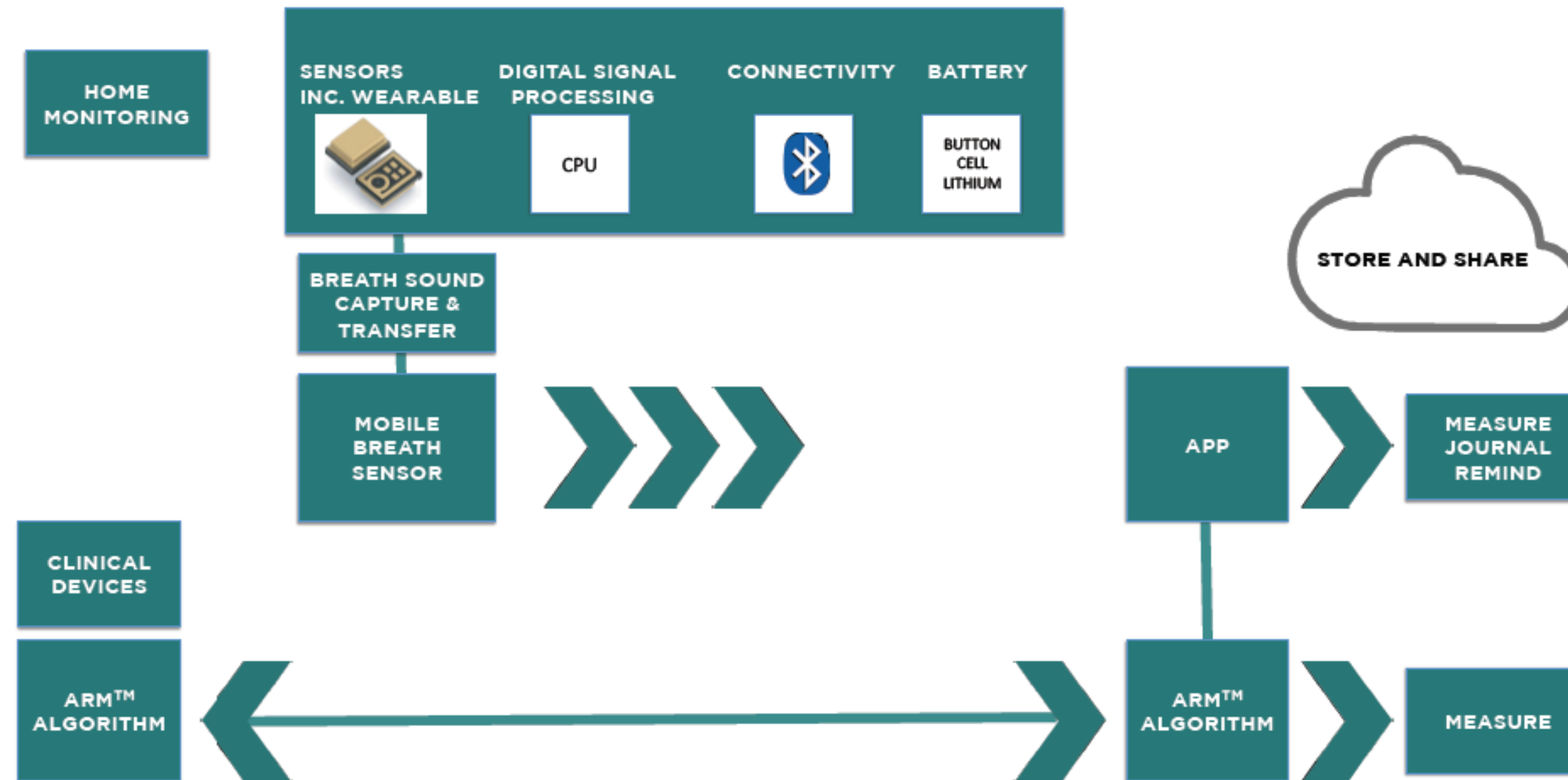
## **MILESTONE 2: DEVELOPED NEW TECHNOLOGY TO SECURE LEADERSHIP**

1. Totally new robust and scalable software and infrastructure built.
2. A world class app developed by global partner, Two Bulls.
3. Algorithm housed in app to deliver faster wheeze measurement.
4. Upgraded AirSonea handset to better capture and transmit breath sounds to app.
5. Proprietary core ARM™ technology fine tuned following technology upgrade.



# KEY MILESTONES SINCE NEW BOARD

AirSonea System Integration of the handset and the app with algorithm. This setup enables thousands of test cycles to be carried out.



# HUGE GLOBAL ASTHMA MARKET

- **334 million people** have asthma
- **14% of the world's children** experience asthma symptoms
- **8.6% of young adults** experience asthma symptoms
- **Approximately 250,000 people die** prematurely each year from asthma. Almost all these deaths are avoidable



**100**  
MILLION



**30**  
MILLION



**25**  
MILLION

## World Map of the Prevalance of Clinical Asthma

Source: Global Burden of Asthma; GINA



**5**  
MILLION



**2**  
MILLION



# ASTHMA POORLY CONTROLLED

## New tools are needed to help patients as asthma is poorly controlled

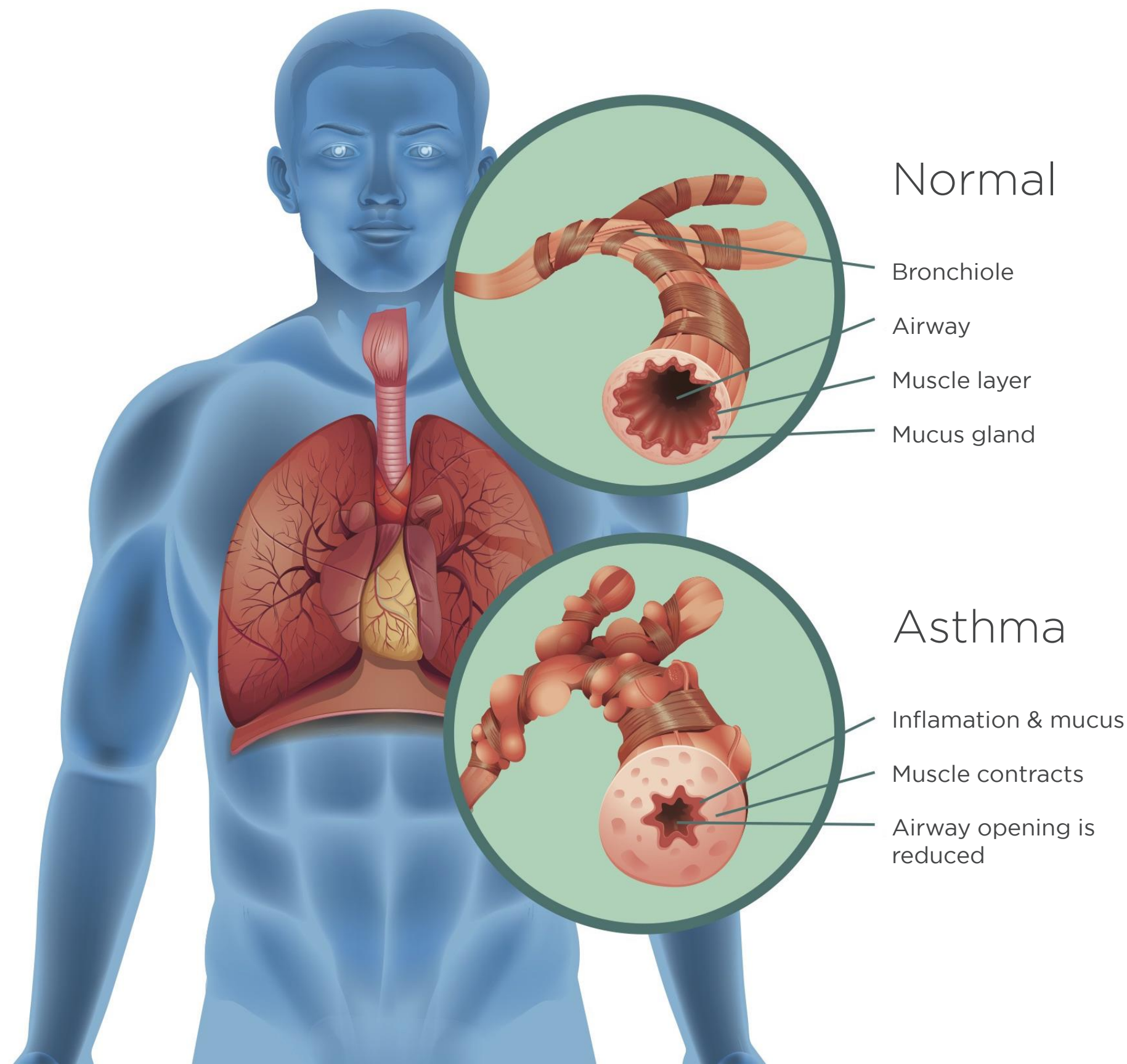
- Nearly half of adults with asthma have poor asthma control
- Medication adherence is poor & asthma action plans are not regularly used
- In Australia, only 11% take medication as prescribed on a daily basis
- Every 10 seconds, someone in the UK has a life-threatening asthma attack
- 49% of the people who had died in the UK from asthma in 2012 were being treated for mild or moderate asthma when it is likely that many of these patients had poorly controlled, undertreated asthma

Although written asthma action plans have been recommended in national guidelines for the management of asthma for over 20 years,  
the majority of people with asthma do not have one.”

Asthma in Australia 2011  
The Australian Centre for Asthma Monitoring, Woolcock Institute of Medical Research

# WHEEZE IS THE MAJOR SYMPTOM OF ASTHMA

## Airflow Limitation



The main symptoms of asthma:

- Wheezing
- Shortness of breath
- A tight chest
- Coughing

When airways become inflamed, flow pressure changes during respiration causing the airway wall to flutter. This flutter results in acoustic energy, or wheeze. The flutter or wheeze is a manifestation of airway flow limitation.

**“... People with asthma typically experience wheezing.”**

**“... If an infant presents with frequent and/or severe episodes of recurrent wheezing they should be diagnosed and managed as asthma, unless there is evidence to the contrary.”**

Global Asthma Report 2014



# WHEEZE IS AN IMPORTANT SIGN



Have you noticed you've been wheezy, breathless or coughing lately? Are you using your medication more? Is your asthma interfering with your usual activities?

**Asthma Australia Spring 2014 Update**

# CORE WHEEZE MEASUREMENT TECHNOLOGY

## Research published by World Leading Physicians in 14 publications

- Our core ARM™ technology records airway sounds to detect continuous adventitious breath sounds and measure the extent of wheezing caused by airway obstruction. The measurement is presented as WheezeRATE™.
- Respi continues to have a first mover advantage with its unique proprietary Acoustic Respiratory Monitoring (ARM™) algorithm technology.
- Respi devices work like a stethoscope utilising special contact microphones, or acoustic sensors, record breath sounds from the lungs at the windpipe (trachea), and in the clinical devices, the chest.
- Patent portfolio with 45 patents





# COMPETITIVE LANDSCAPE

## Asthma Wheeze Monitoring: No direct competitors

### **Asthma Wheeze Monitor**

No other objective wheeze measurement devices on the market suitable for children who cannot perform lung function tests

### **Lung Function Tests**

Cohero Health  
Spirometry, Wing Spirometry, Peak Flow  
Manufacturers (difficult to use, patient interpretation and data unreliable)

### **Medication Usage Monitoring Devices**

Adherium, Propeller Health, Gecko Health  
Innovations (TEVA Pharmaceuticals),  
Cohero Health

# CLEAR STRATEGIC FOCUS

## MULTI PRODUCT PORTFOLIO TO LOWER RISK FOR INVESTORS

**Current portfolio** consists of home monitoring and hospital wheeze detection products & apps. Algorithm machine learning. PulmoTrack™, WHolter™, SonoSentry™, WheezoMeter™, AirSonea®.

**Our portfolio strategy** incorporates wireless overnight monitoring, and the latest technology advances for handset upgrades that encompass miniaturisation of components and state of the art ergonomics.





# CLEAR STRATEGIC FOCUS

## FUTURE APP FEATURES

### Gamification

We're gamifying the AirSonea app for its primary target of children and their parents/caregivers. Taking a wheeze measurement and filling in the asthma diary will essentially be more fun with the use of appealing characters providing small challenges, gratification and reward.

### Real world pollen count data

We will provide a year round 7- day forecast of regional pollen levels and send push notifications for high pollen forecast days, helping people for whom pollen is an asthma trigger, plan ahead.



# CLEAR STRATEGIC FOCUS: SCALABLE CONSUMER BUSINESS

## AirSonea® Wheeze Monitor

Designed as an affordable OTC device, AirSonea can benefit consumers, both children and adults, diagnosed with asthma, who wish to monitor their health at home and provide objective data to caregivers and healthcare professionals. AirSonea Wheeze Monitor is a non-prescription, non-invasive, hand-held device.

### AirSonea® Asthma Wheeze Monitor

#### AirSonea Sensor Device

- Acquires breath sounds
- Transmits breath sounds to iPhone with AirSonea app

#### AirSonea App

- Contains proprietary ARM algorithm
- Algorithm processes recorded sound into displayed WheezeRATE
- Enables cloud storage

### Consumers

#### Smartphone

- Patients, parents and caregivers
- Track and monitor performance

### Big Data

#### Health system platforms, insurers and managed health organisations

- View objective data and analytics to make decisions
- Multiple data sets linked together



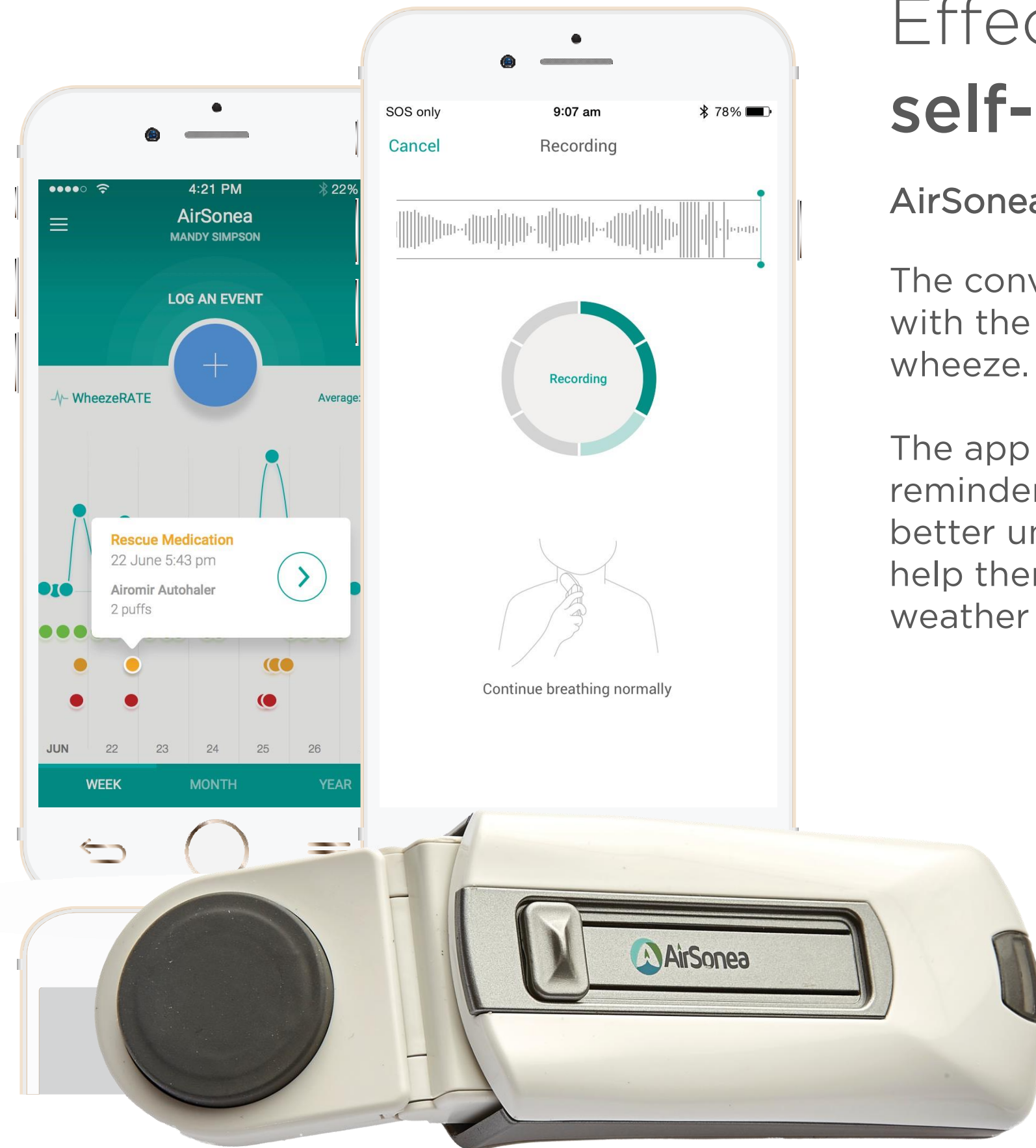
# HOME MONITORING PRODUCTS

Effective tools to improve **patient self-management** of asthma are critical.

## AirSonea® Asthma Wheeze Monitor Device & App

The convenient and easy-to-use AirSonea device connects via Bluetooth® with the asthma management smartphone app to detect and measure wheeze.

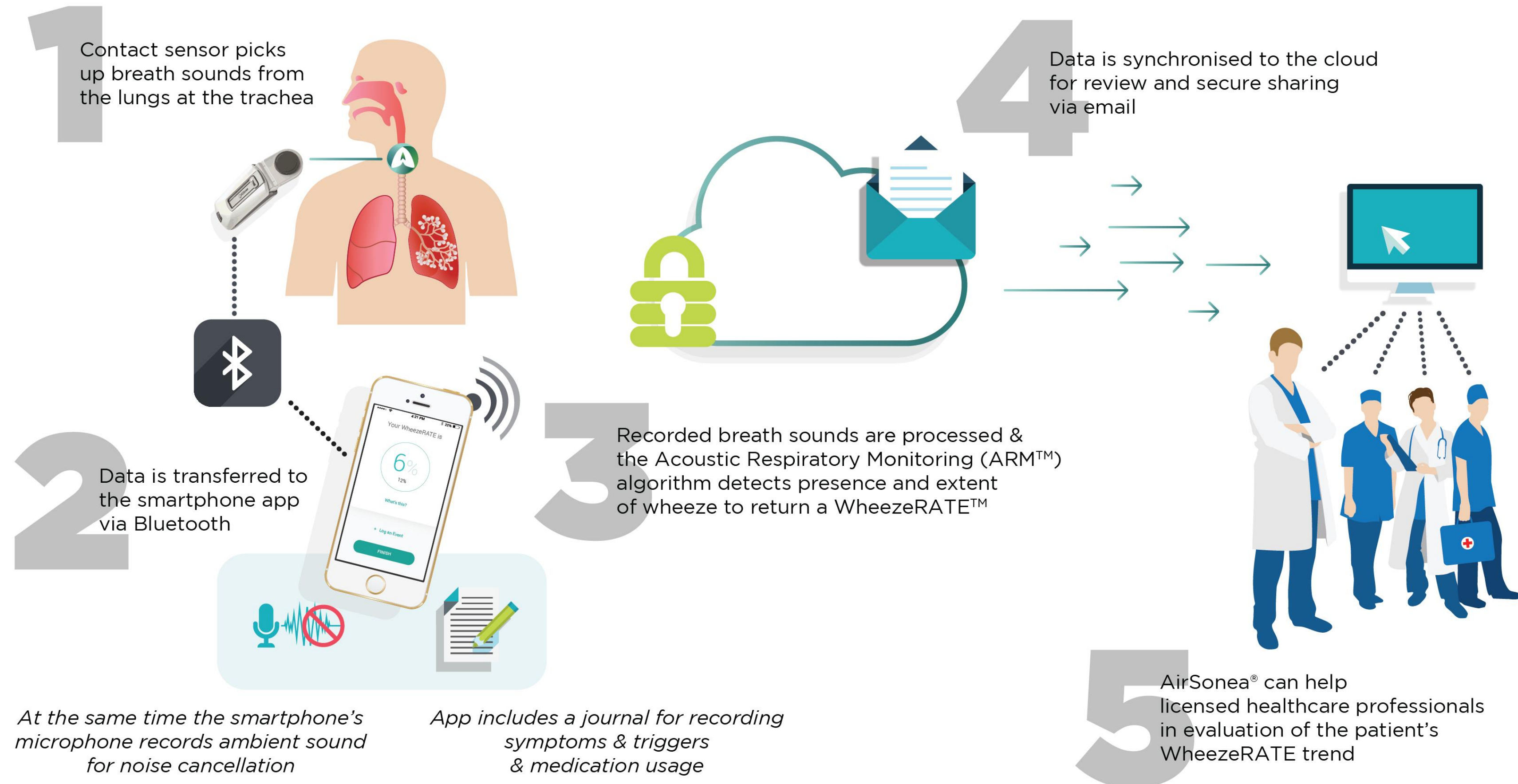
The app features asthma management diary features; medication usage and reminders, and symptoms and triggers to help asthma sufferers gain a better understanding of how their condition affects them and importantly, help them better adhere to their treatment plans. Further features including weather conditions and pollen count are planned.



**“The development of robust acoustic devices for use at the bedside – as exemplified by electronic stethoscopes paired with small convenient recorders and perhaps in the form of a smartphone with an app - may provide the long-awaited portable objective means to record, analyse, and store lung sounds just as any other clinical information is measured and stored. This development will make sound tracking possible, further enhancing the usefulness of auscultation.”**

“Fundamentals of Lung Auscultation” by Abraham Bohadana, M.D. Gabriel Izbicki, M.D. & Steve S Kraman M.D. New England Journal of Medicine 370;9 NEJM:ORG FEBRUARY 20, 2014

# HOW IT WORKS





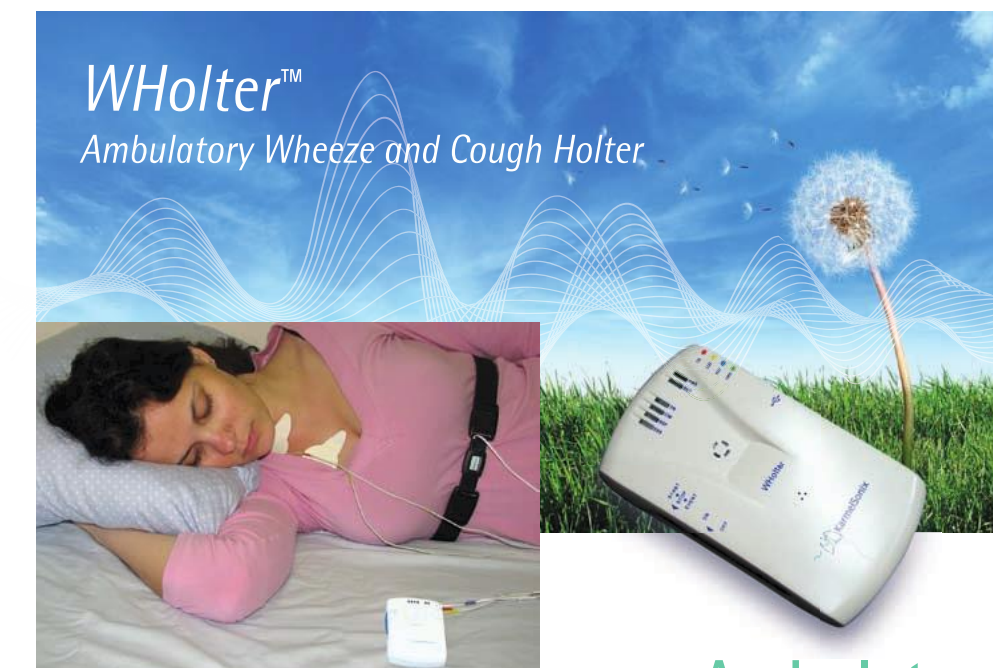
# HOME MONITORING: NOCTURNAL

## WHolter™

**Symptoms of asthma, including wheeze, are generally worse at night and early morning.**

The WHolter is designed for 8 - 24 hour home ambulatory recording (nocturnal, wheeze, cough). This option of monitoring Asthma patients and collecting data for a period of time in their own home is important and has excellent potential to develop service and consumables revenues around it. WHolter uses PulmoTrack software and currently connects to a PC via USB.

**Next Step:** upgrade to wireless capability and app function



**WHolter™**  
24-Hour Symptoms Recorder in a Patient's Own Environment

Ever wonder what the patient is experiencing overnight, during exercise, after a meal, at the work place? The WHolter™ is the first ambulatory wheeze and cough 24-hour recorder that can document objectively and quantitatively patients with:

- Nocturnal Asthma
- COPD or Chronic Bronchitis
- Occupational Asthma
- Chronic Cough
- Allergies

The WHolter™ is used to continuously determine and provide a detailed report on:

- WheezeRATE™, wheeze time over total time
- Inspiratory and Expiratory WheezeRATE™
- CoughCOUNT™, number of coughs per minute/hour
- Respiratory Rate
- I:E Ratio

## Ambulatory Monitor

Overnight or 24-hour WHolter™ recording can be used to:

- Document Nocturnal Asthma, assess its severity and provide a clear temporal pattern of overnight wheeze activity
- Evaluate level of Asthma control and need for Step-up or Step-down of Asthma treatment
- Evaluate Chronic Cough patients, symptom association (e.g. exposure) and response to treatment
- Objectively document effect of occupational and environmental (e.g. fragrances) pollutants and allergens



WHolter™: Listens to your patient when you can't...

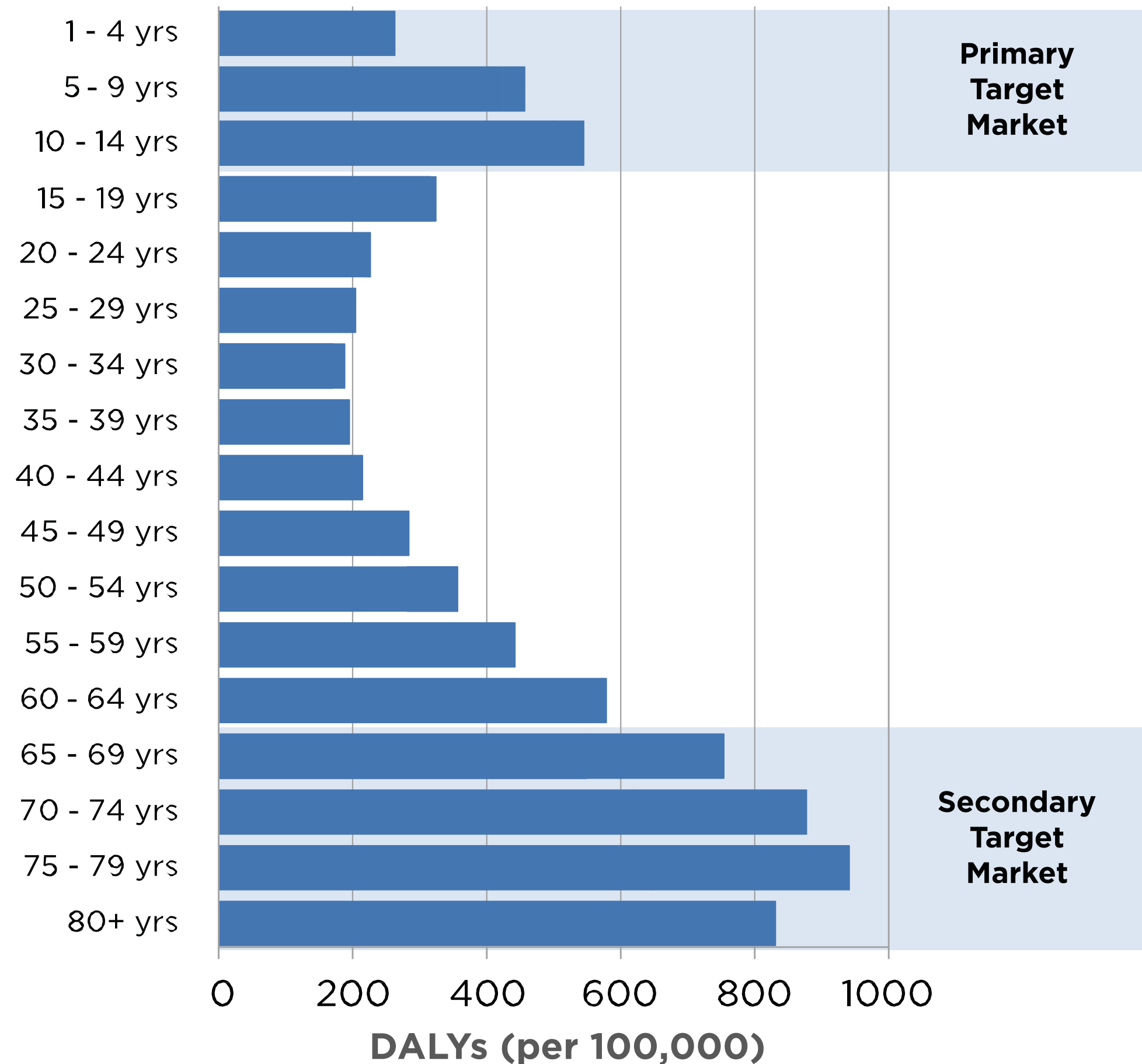


# CLEAR STRATEGIC FOCUS: PARENTS OF CHILDREN WITH ASTHMA

## INITIAL TARGET MARKET

- Parents constantly worry about their child's health, wonder when the next attack will occur and what will trigger it.
- Admit they could be more diligent and none feel like they are in complete control.
- 'Asthma guilt' is pervasive and prefer a 'proactive' management approach.
- Find it difficult to articulate the severity of symptoms to doctors, a source of some frustration.

# TARGET MARKET



**Young children cannot use lung function tests and peak flow meters, and their parents & carers have difficulty communicating wheezing episodes to their physician**

Burden of disease, measured by disability adjusted life years (DALYs) per 100,000 population attributed to asthma by age group and sex. Global Population, 2010.

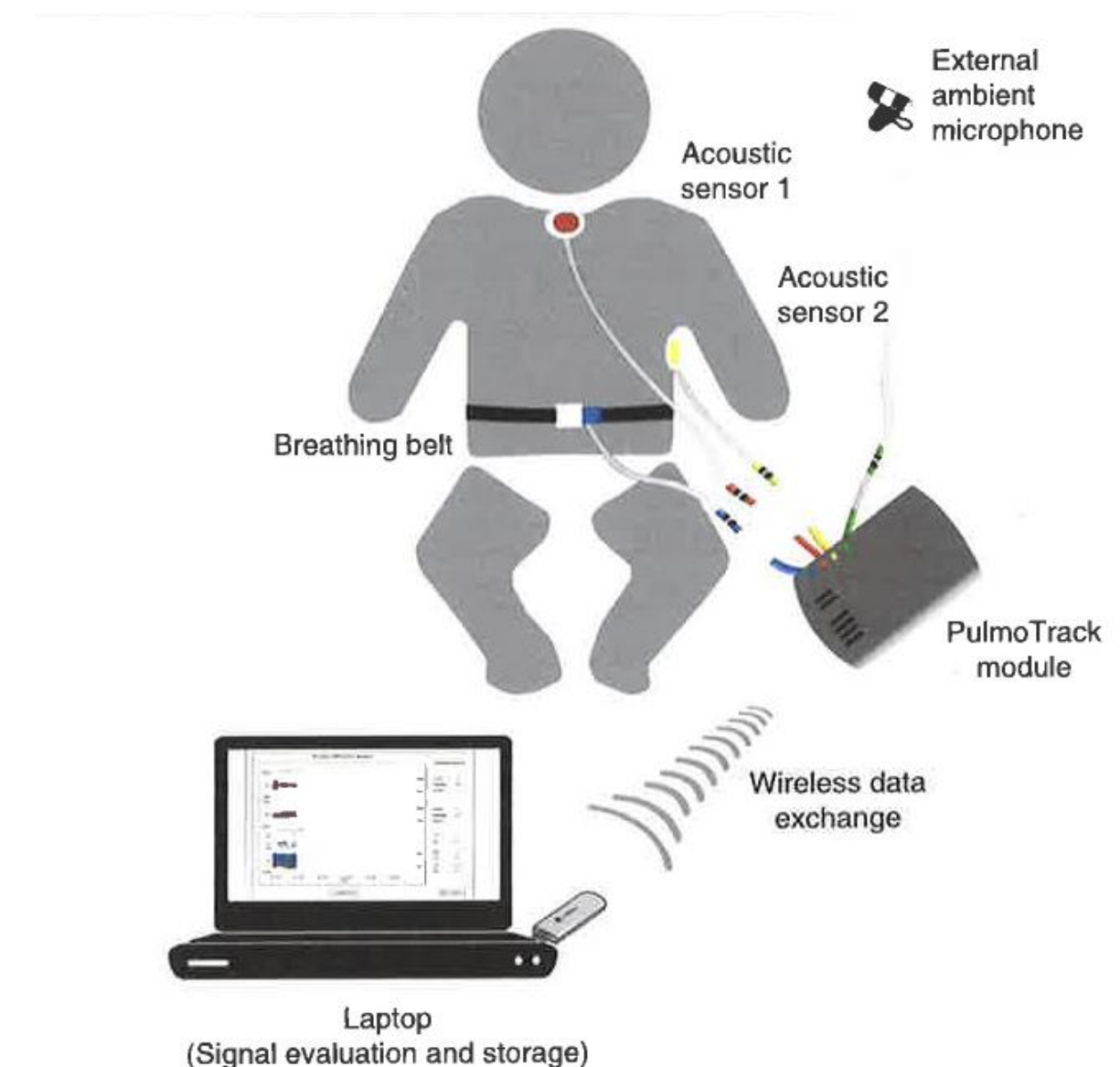
Global Asthma Report, 2014

# CLEAR STRATEGIC FOCUS: BUSINESS TO BUSINESS

The business to business model has three target markets based on the PulmoTrack™, Respi's foundation product.

- **Healthcare systems** such as the NHS in the UK, hospitals and specialised asthma clinics. Postcode lottery in UK refers to the difference in incidents of chronic diseases across various postcodes.
- **Health insurance** (payors) are focused on reducing avoidable hospital admissions, emergency room and outpatient visits.
- **Big Pharma Trials:** Respi's wheeze detection offers the pharmaceutical industry the opportunity to objectively evaluate the different drug treatments.

Historical sales of approximately \$1 million





# BUSINESS TO BUSINESS HEALTHCARE SYSTEMS

## Hospitals and Asthma Clinics

PulmoTrack has been historically sold to a broad range of hospitals before it was discontinued by previous management. Late in 2013, it was successfully used in Berlin:

*“In a recent study conducted at the Department of Neonatology, Charité University Medical Centre, Berlin, Germany, wheezes were detected using the PulmoTrack® Model 2020. “....an instrument developed for continuous tracking and recording of breathing sounds and the detection of wheezing. Computerised wheeze detection is feasible during the first year of life. This method is more objective and can be more readily standardised than subjective auscultation, providing quantitative and non-invasive information about the extent of wheezing”. Puder et al BMC Paediatrics 2014*

To date clinical demand has resulted from publications referencing the technology and the presentation of Professor Gavriely at major global respiratory conferences. These major opportunities still exist.

## Health Insurance (Payors) and Managed Health Organisations

- Payors are increasingly focused on reducing health care spent on avoidable hospital admissions, emergency room & out-patient visits.
- Disease management organisations have been created in the USA to provide patient management that reduces healthcare expenditure by keeping patients out of hospital.

# BUSINESS TO BUSINESS: BIG PHARMA TRIALS

## Clinical Trials: Big Pharma

AirSonea provides the opportunity for objectively evaluating different treatment modalities for wheezy preschool children in whom current management is largely based on subjective observation.

Respiri's ARM™ technology is also an enabling technology for pharmaceutical companies to progress their own respiratory treatments. This presents substantial areas for commercial collaboration. Over \$46.4Billion is spent on Big Pharma.

PulmoTrack offers the pharmaceutical industry the opportunity to objectively evaluate different treatment modalities

- Wheezing is a common problem in infants and preschool children and may be caused by a variety of factors. The major problem facing companies wishing to develop and evaluate treatments of wheezing disorder in preschool children is the lack of any objective measurement of the frequency and severity of airway obstruction.
- This subjectivity presents a challenge to pharmaceutical companies trying to develop asthma treatments for preschool children.
- The potential importance of a wheeze detector to the pharmaceutical industry, is demonstrated in “Respiratory Syncytial Virus and Recurrent Wheeze in Healthy Preterm Infants” by Blanken et al and the corresponding editorial by Robert F. Lemanske Jr., MD published in the New England Journal of Medicine.

**“A major concern with using wheezing to define an illness is the subjectivity involved in assessing this symptom in terms of caregiver recognition, agreement between parental and physician assessment, and recognition of the degree of severity that portends subsequent administration of systemic glucocorticoids or hospitalisation.”\***

# VALUATION UPSIDE

## SUBSTANTIAL TRANSACTIONS HAVE RECENTLY OCCURRED IN DIGITAL HEALTH

**Wellness devices:** Fitbit: \$3.7 billion market cap

**Diabetes:** Dexcom Continuous Glucose Monitoring founded in 1998: IPO in 2005 at US\$10, at or below US\$10 for 8 years, now US\$80. Market cap US \$5.6 billion

### **Asthma:**

- Adherium medication adherence founded in 2001, IPO in 2014, market cap of approximately \$55million
- Teva Pharmaceuticals (the world's largest producer of generic medicines) purchases a medication adherence device developed by Gecko Health Innovations.
- ResApp early stage, pneumonia diagnosis research, valued at \$114million

### **mHealth:**

Asian smartphone giant, Xiaomi buys 20% stake in Andon's iHealth business. Values business at US\$125million.



# DEXCOM INC.



# MONETISATION PATHWAY

- 1.** Conduct capital raising. **May – June 2016**
- 2.** Complete the current independent AirSonea research study at the University of Chicago. **April – June 2016**
- 3.** Complete regulatory approvals for AirSonea. **July – Sept 2016**
- 4.** Conduct a market pilot in Australia with a major pharmacy chain. **July - December 2016**
- 5.** Deliver sales and distribution agreements and collaborative technology partnerships. **October 2016 – March 2017**

## 2. AIRSONEA RESEARCH STUDY

AirSonea's proprietary algorithm (ARM™) has been validated in at least 14 independent research studies that used Respi's PulmoTrack hospital product to measure wheeze.

Prior to commercialisation the AirSonea product needed an independent research study to show that AirSonea is at least as accurate (sensitive and specific) in detection and quantifying wheeze as a consensus of: (a) physicians and (b) a panel of technical experts.

Over the past 12 months Respi had to build a totally new technology platform to house the algorithm prior to this research study.

### **AIRSONEA RESEARCH STUDY APPROVED BY INSTITUTIONAL REVIEW BOARD AT THE UNIVERSITY OF CHICAGO - 25<sup>th</sup> NOVEMBER 2015**

“Respi is pleased to advise that Institutional Review Board (IRB) approval has been received to conduct a research study of our home monitoring device, AirSonea, at the prestigious University of Chicago in the division of Medicine & Biological Sciences.

The Principal Investigator will be Professor Edward T Naureckas, MD, Professor of Medicine and Director of the Pulmonary Function Laboratory and the Adult Cystic Fibrosis Program. Dr. Naureckas is an expert in the pulmonary conditions including asthma, adult cystic fibrosis and chronic obstructive pulmonary disease (COPD). He specialises in pulmonary function testing to determine the cause and severity of complex lung disorders.

This study will collect and record breath sounds data using AirSonea platform from patients in all age groups (infants to geriatrics) under realistic ambient conditions. The study hypothesis is that the AirSonea is at least as accurate (sensitive and specific) in detection and quantifying wheeze as the consensus of: (a) physicians and (b) a panel of technical experts who evaluate these recordings.”



# 3. REGULATORY APPROVALS

## US FDA 510(k) & CE Mark Approvals

All products except AirSonea® have FDA 510(k) clearance and CE mark. AirSonea has CE class I approval and submission is being made for CE class IIa. Respire has received ISO 13485 certification for its medical device quality management system at its Haifa operations, with exception of AirSonea.

	PulmoTrack 2010 (WIM-PC)	Personal WheezoMeter	WHolter 5050	PulmoTrack 2020	SonoSentry	AirSonea
FDA 510(k) Clearance	K071955	K090863	K101022	K102229	K131285	Submitted
CE mark II	MDD 93/42/EEC	MDD 93/42/EEC	MDD 93/42/EEC	MDD 93/42/EEC	MDD 93/42/EEC	Submitted
TGA						TGA Approved
Classification Name	Diagnostic Pulmonary- Function Interpretation Calculator	Diagnostic Pulmonary- Function Interpretation Calculator	Medical magnetic tape recorder	Diagnostic Pulmonary- Function Interpretation Calculator	Diagnostic Pulmonary- Function Interpretation Calculator	Asthma Wheeze Monitoring Device
	Prescription Use	Prescription Use	Prescription Use	Prescription Use	OTC	OTC

### 3. REGULATORY UPDATE

**CE Class II.** All necessary documents submitted to the notified body. The ISO 13485 audit on the AirSonea quality system is currently in progress and will complete the submission. Previous ISO 13485 certification on all other products.

- **FDA.** Submission based on our FDA cleared predicate device, the SonoSentry. Proceeding well.

# 4. MARKETING PILOT WITH PHARMACY CHAIN

- Finalise pilot stores
- Pricing strategy options
- Point of purchase education
- Marketing & promotion materials
- Independent consumer & pharmacy research
- Evaluation & reporting



# 4. POTENTIAL PARTNERS

Respiri brings  
Digital Health  
Capabilities to  
Worlds Largest  
Healthcare  
Companies



# 5. SALES & DISTRIBUTION PROGRESS: COMMERCIAL IN CONFIDENCE

- Australia – Activate previous partner.
- UK/Europe – In discussion as confidentiality agreement signed.
- USA – Follow up actions.
- Japan – Further discussions to be initiated.
- China – Interest expressed from major technology leader.

# INVESTMENT CASE SUMMARY

## **Substantial value creation potential now**

- New board, management and technology partners have transformed the business
- Asthma is a major global problem that is poorly managed & controlled
- Wheeze is the most common symptom of asthma\*
- Respiri has leading edge core technology to detect and measure wheeze
- No known competition
- Home monitoring via smartphones is a key driver of growth
- Quickly scalable business
- Clear pathway to monetise business



# FORWARD LOOKING STATEMENTS & MEDICAL DEVICE RISKS

## Forward Looking Statements

Certain statements made in this presentation are forward-looking statements. These forward looking statements are not historical facts but rather are based on Respiro's current expectations, estimates and projections about the industry in which Respiro operates, and its beliefs and assumptions. Words such as "anticipates," "expects," "intends," "plans," "believes," "seeks," "estimates," "guidance" and similar expressions are intended to identify forward looking statements and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those risks or uncertainties inherent in the process of developing technology and in the endeavour of building a business around such products and services. These statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties and other factors, some of which are beyond the control of Respiro, are difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward looking statements. Respiro cautions shareholders and prospective shareholders not to place undue reliance on these forward-looking statements, which reflect the view of Respiro only as of the date of this presentation. The forward looking statements made in this presentation relate only to events as of the date on which the statements are made. Respiro will not undertake any obligation to release publicly any revisions or updates to these forward-looking statements to reflect events, circumstances or unanticipated events occurring after the date of this presentation except as required by law or by any appropriate regulatory authority.

## General Medical Device Risks

- Medical device R&D involves medical and scientific uncertainty and long lead times and there is no certainty that any particular event will occur within a certain time period.
- Technology changes in the medical device and digital health industry are accelerating and new technologies emerge.
- Market acceptance of medical devices is uncertain and can be impacted by difficulties in marketing, acceptance by patients and clinicians, delays in marketing and the advancement of new competitive products.
- Medical device R&D and manufacturing activities require funding over a long period of time and more working capital is often required to complete development and commercialisation of certain products.
- Government health regulations, which are subject to change, add uncertainty to obtaining approval to market medical devices.
- Obtaining, securing and maintaining rights to technology and patents are an integral part of securing potential product value and can lead to patent disputes.
- The loss of key personnel can have an adverse impact.
- Potential product liability risks and warranty claims are inherent in the manufacturing, marketing and use of human medical devices.

# APPENDIX

# THE BOARD

## Leon L'Huillier – Executive Chairman

Executive Chairman, Leon L'Huillier has a respected track record as a business man in his roles as a Chairman or Director of Medical Research, health and road trauma organisations. He is currently Deputy Chairman of Australian Prostate Cancer Research. He is former Chairman of the Vision CRC at the University of NSW, the world's leading centre for cornea and contact lens applied research.

Other Board appointments include being a former Chairman of the Australian Health Ministers Advisory Council, Chairman, the Royal Children's Hospital, Brisbane and Director of the National Health and Medical Research Council. He is former Director of St. Vincent's Hospital, Melbourne and the O'Brien Institute that carries out internationally recognised scientific research in the fields of Tissue Engineering and Vascular Biology. He was Chief of Health Department Victoria where he introduced a large number of reforms.

As Executive Chairman of Victoria's Transport Accident Commission he developed and introduced the innovative TAC road safety campaigns, which reduced Victoria's road toll by almost 50% in three years. He won a Cannes Golden Lion and received international recognition for his pioneering work. In private equity he has worked with major Australian firms including Macquarie Bank, Grant Samuel, Archer Capital, Ironbridge and Gresham.

A former Director and Audit Chairman of Woolworths Limited, Director of Challenge Bank and MLC Limited, Chairman, Lend Lease Investment Board and the Australian Prime Property Fund Limited. He is a former Director of Price Waterhouse Australian Policy Board. He has been a CEO of fast moving consumer goods (FMCG) companies.

Qualifications: MBA, (Chicago), MPhil, (London), BCom (Hons) (Melbourne), FAICD



# THE BOARD

## David Ashmore – Independent Non-Executive Director

David Ashmore is a Fellow of the Institute of Chartered Accountants, a Fellow of the Financial Services Institute of Australasia and a Graduate of the Institute of Company Directors. He has over 40 years of professional assurance services experience and is a former senior partner at Grant Thornton Australia and one of its predecessor firms and was a leader in the audit services division for many years.

David is an Independent Director and Chairman of Saferoads Holdings Ltd and holds a number of other private company directorships and appointments as an independent member of Audit and Risk Management Committees.

Qualifications: FCA, GAICD, F.FIN

## Ross Blair-Holt – Independent Non-Executive Director

Ross Blair-Holt brings to the Respiro Board a number of skills, including strategic and structured decision making at all levels of finance expertise, business processes, risk management, and governance. After working at General Credits Finance Company and Citibank until 1986, Ross has worked for the Bruce Mathieson Group of private companies from 1986. He is currently Director and CEO of all these companies.

In addition, from 2004 to 2014, Ross was Chief Operating Officer of ALH Group, owner of 330 Hotels across Australia. ALH is owned 75% by Woolworths Ltd and 25% by Mathieson Group. Ross remains a Director of the ALH Group, as well as being a member of the ALH Audit and Risk Committee.

Qualifications: BCom (Melbourne), CPA.

# THE BOARD

## Dr. Tim Oldham– Independent Non-Executive Director

Timothy Oldham has more than a decade of direct life sciences business development, alliance management, market entry and sales & marketing experience in Europe, Asia and Australia. He is CEO of Cell Therapies Pty Ltd, a leading Asia Pacific provider of collection, manufacturing, delivery and distribution capabilities for stem cell therapies and regenerative medicine and was President of Asia Pacific for Hospira, Inc. (2007 to 2012) having held a variety of senior management roles with Mayne Pharma (2002 to 2007) prior to its acquisition by Hospira. These roles encompass the development and Commercialisation of pharmaceuticals, devices, biologics and cellular therapies.

Prior to this, Tim was an engagement manager with McKinsey & Co (1997 to 2001). He has been chairman of the European Generic Medicines Association Biosimilars and Biotechnology Committee, a Director of the Generic Medicines Industry Association and a member of the Pharmaceutical Industry Strategy Group. He is also a Director of Acrux Ltd (ASX:ACR).

Qualifications: BSc (Hons), LLB (Hons), PhD, GAICD

## John Ribot de Bresac – Independent Non-Executive Director

John has extensive experience and a strong record of achievement as a senior executive across consumer facing businesses in the sport, leisure and hospitality industries including in strategy development and implementation. Following a distinguished sports career where he received the Australian Sports Medal, he was instrumental in the establishment of the Brisbane Broncos and Melbourne Storm, in executive Director roles, and as chairman of the Brisbane Roar. Currently John serves as Director of Victorian Major Events Company, executive chairman of Queensland Clubs Management (QCM), and owns hospitality venues throughout Queensland.

# MEDICAL & SCIENTIFIC ADVICE

Respiri has worked with a number of respected physicians and scientists including, but not limited to:

## PROFESSOR NOAM GAVRIELY

An international authority on pulmonary acoustics, Prof Gavriely has extensively published on various aspects of breath sound monitoring over the last 25 years and holds multiple patents on phonopneumography and other aspects of breath sounds monitoring.

## PROFESSOR SIMON GODFREY

Emeritus Professor Pediatrics at the Hadassah-Hebrew University, Jerusalem, Prof Godfrey's main research interests are in pediatric pulmonary physiology and the application of novel investigative techniques for the diagnosis and management of pediatric pulmonary disease. He has published over 190 original papers and 16 books.

## PROFESSOR ZAHRA MOUSSAVI

Director, Biomedical Engineering Program Professor & Canada Research Chair University of Manitoba, Prof Moussavi specialises in sleep apnea, respiratory sounds analysis and Alzheimer's diagnosis and treatment. She has published more than 180 papers.

## DR CATHERINE DOWNES

Dr Downes is a General Practitioner who has practiced in London and Australia. Dr Downes has been a Principal of several large medical centers in Queensland and currently practices in a Sydney CBD medical center. She has also served as a Government Medical Officer in Queensland and attended Magistrate, District and Supreme courts as an expert medical witness.



# MANAGEMENT & PARTNERS



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# MARKET RESEARCH

## AIRSONEA® AN IMPORTANT SELF-MANAGEMENT TOOL

Respiri has conducted extensive market research in the US and Australia that shows our functional, user friendly product line will meet the expectations of our customer base that includes parents and patients, the medical profession, insurers, pharmacies and retailers.

Intent to purchase the AirSonea wheeze monitor ranged from 60% to 95% in the various studies.

## KEY FINDINGS: PARENTS OF CHILDREN WITH ASTHMA

Parents are constantly worrying about their child's health and wondering when the next attack will occur and what will trigger it. They admit they could be more diligent and none feel like they are in complete control.

'Asthma guilt' is pervasive. It's a function of the pressure of day-to-day life overwhelming the best of intentions; coupled with the more 'reactive' approach to an asthma attack rather than 'proactive' management.

They also find it difficult to articulate the severity of symptoms to doctors, a source of some frustration.

### Adults with asthma

Adults with asthma (secondary market) have more established knowledge of their asthma and "know if I'm wheezing or not". Certainly interested, but not to the same degree as parents.



# MARKET RESEARCH

## TARGET MARKET: PARENTS OF CHILDREN WITH ASTHMA

- Parents of kids with asthma (primary market) want to get a better understanding of their child's asthma. The mums are protective and want to feel reassured that their child is ok. It's about allaying the worry and creating a better life for their child.
  - Parents and caregivers have difficulty providing feedback to their doctor on asthma symptoms including wheeze. (How severe, how often, what triggers make it worse?)
  - Episodic respiratory symptoms such as wheezing are very common in children, particularly under 3 years.
  - Objective lung function testing is generally not possible in preschool children (0-6)
- Asthma is common among persons over the age of 65 (secondary market) and most deaths caused by asthma occur in this age group.
  - Children and adolescents represent approximately 30% of the asthma market.

# MARKET RESEARCH

## KEY FINDINGS: MEDICAL PROFESSIONALS

In addition to consumer research, Respiro also conducted qualitative in depth interviews with key asthma experts and a quantitative study with a total of 100 Australian GPs including 50 paediatricians who routinely treat asthma.

- Results found that 80% of GPs and 62% of paediatricians in the study would recommend Respiro's new mobile wheeze monitoring system to their asthma patients. Providing additional scientific data on the technology would increase the percentage of these recommendations.
- In general, the product was perceived as an important management tool for patients who would benefit from more frequent home monitoring or asthma symptoms, which were characterised as 75% of patients with unstable asthma and approximately half of all patients with stable asthma.

Physicians considered home monitoring of asthma “very important”, chiefly to assist in the management of asthma treatment plans and ensuring medication adherence. They noted historically, the use of peak flow meters and diaries has been met with poor compliance and reliability.