



15 November 2018

Dear Shareholders,

In the past year we have made significant progress towards the commercialisation of our products. Our acute respiratory disease diagnostic technology, having been validated in over 4,500 patients at hospitals in Australia and the United States, has now matured to a stage where we are pleased to be moving forward with regulatory submissions in Europe, Australia and the United States for paediatric use. This year we announced to shareholders our obstructive sleep apnoea program and were delighted to receive excellent results in a large cohort prospective study in October. I am exceptionally pleased with the performance of our growing team, with everyone making critical contributions to these successes.

We continue to work closely with a number of world-class partners who have been instrumental to the success of ResApp, including Dr Abeyratne and his research team at The University of Queensland, Dr Porter and his team at Joondalup Health Campus, Dr Currie and Dr Ling and their team at Cardio Respiratory Sleep as well as the three SMARTCOUGH-C-2 principal investigators and their respective teams at Massachusetts General Hospital, Cleveland Clinic and Texas Children's Hospital.

Acute Respiratory Disease

I feel it is important to describe the clinical environment in which we operate as it shapes our product development and commercialisation strategy. Most people will develop an acute respiratory tract infection every year, and these infections are the most common acute illnesses dealt with in primary care. Primary care is under pressure globally, with healthcare payers, providers and governments looking for technology-led solutions, such as telehealth, to deliver more accurate, convenient and cost-effective healthcare. Acute respiratory disease diagnosis, especially in children, is a complex, subjective process, combining clinical judgement with diagnostic aids such as auscultation with a stethoscope, chest x-ray, blood and sputum tests. Clinicians follow a "decision-tree"-like process to narrow down their diagnosis to a specific disease and treatment. As our technology has matured, we have focused on providing outputs which help clinicians follow this process, especially in environments such as telehealth or urgent care, where existing tools used at critical points in the process (such as auscultation) are unavailable, slow or imprecise.

This clinical decision path for the diagnosis of respiratory disease begins with the critical step of differentiation between upper and lower respiratory tract disease, typically using clinical symptoms and signs. Our algorithms can provide this answer quickly, accurately and with excellent repeatability. Upper respiratory tract diseases tend to be milder and include the common cold, sinusitis and pharyngitis. Lower respiratory tract diseases tend to be more serious and include asthma exacerbations, bronchiolitis and pneumonia. Asthma exacerbations tend to be associated with a wheezy chest which clears with the use of an inhaled bronchodilator (such as salbutamol), bronchiolitis, which occurs in children under two years old, is also associated with a wheezy chest but does not tend to clear with an inhaled

bronchodilator, while pneumonia tends to be associated with fever, fast breathing and focal chest signs which can be found on auscultation or chest x-ray. Our algorithms also provide invaluable answers during this second diagnostic phase, when an upper or lower respiratory tract disease is further narrowed down into a single specific diagnosis.

Results from our double-blind, prospective paediatric Breathe Easy study performed in Australia conclusively demonstrate that our algorithms can very accurately identify a broad range of childhood respiratory diseases associated with both the upper and lower respiratory tract. The results for identifying lower respiratory tract disease, upper respiratory tract disease, asthma, croup, pneumonia and bronchiolitis were outstanding, with results for asthma and pneumonia exceeding our expectations. This study provides a very solid dataset to underpin our forthcoming CE mark and TGA submissions which will open up the large European and Australian markets respectively. Coupled with our recently received ISO 13485 quality system accreditation, an essential component of these submissions, we are now in a very strong position to complete applications for registration.

Our SMARTCOUGH-C-2 study which was completed at three leading hospitals in the United States further demonstrates the accuracy of our algorithms, in particular for upper respiratory tract disease, lower respiratory tract disease and asthma. We are pleased with the results for these three indications as they provide information to clinicians on key, critical decision points in the clinical decision path outlined above. In many settings, in particular telehealth, these algorithms solve a crucial unmet clinical need and represent very large commercial opportunities for us. We have now engaged with our experienced regulatory consultants to finalise our *de novo* submission to the FDA for these three indications. We hope to add croup to this list once we receive those results.

The SMARTCOUGH-C-2 study also highlighted the challenges of acute respiratory disease diagnosis, with our clinical adjudication process showing that in only two-thirds of cases did the first two clinical adjudicators agree on a disease diagnosis. Our results for pneumonia and bronchiolitis were lower than expected, however we have now identified clear differences in the clinical diagnosis for these diseases between Australia and the United States (for example, higher incidence of chest x-rays and the use of bronchodilators in infants in the United States). We have confidence that when these differences are accounted for, we should see similar performance of our algorithms in the United States to that achieved in our Australian studies.

Adults and Chronic Respiratory Disease

We are now focusing our acute respiratory disease clinical programs on adults and look forward to seeing results from our prospective adult Breathe Easy study shortly. Beyond this, our proof of concept studies have opened the door to significant-sized opportunities in management of chronic respiratory diseases such as asthma and chronic obstructive pulmonary disease (COPD). The scale of this opportunity is large with an estimated 16 million people in the United States having COPD and a recent study published in *The Lancet* estimated that almost 100 million people in China have COPD – many of whom are undiagnosed.

Sleep Apnoea

It is exciting to see our sleep apnoea program taking shape. We were pleased to announce the first proof of concept results for screening obstructive sleep apnoea in April and our first prospective set of results in October. Obstructive sleep apnoea is not just snoring or feeling

tired during the day, it is a serious medical condition in which breathing is repetitively interrupted during sleep due to complete or partial upper airway blockage. A study presented at the American Thoracic Society's annual meeting earlier this year estimated that 936 million people worldwide have sleep apnoea. With 80 percent of people suffering moderate or severe sleep apnoea being undiagnosed, the need for an accurate, highly-scalable and easy to use sleep apnoea screening tool is clear.

Existing diagnostic tests such as in laboratory or home-based sleep testing, are not able to fill the gap due to availability and high cost. In fact, recent changes to the Medicare Benefits Schedule in Australia has tightened the requirements for a reimbursed sleep study. This is a delicate balance for healthcare payers, as there is increasing evidence that undiagnosed sleep apnoea can have a significant impact on health, including increasing the risk of heart disease, hypertension, stroke and type 2 diabetes. Researchers have estimated that untreated sleep apnoea may raise the risk of dying from heart disease by up to five times.

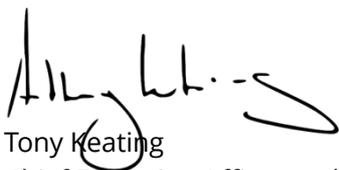
We are excited by the clinical and commercial potential that a software application running on a smartphone placed on a bedside table offers in screening large portions of the population easily and at low cost. The next stage in our sleep apnoea program is underway, with patients and volunteers undergoing simultaneous home-based sleep studies.

Path Ahead

The next twelve months will again be a busy time for ResApp. With major regulatory submissions underway, adult clinical studies coming to their conclusion, our hospital partnership in Germany progressing, our DARPA-funded project with Lockheed Martin taking shape and our obstructive sleep apnoea program progressing quickly towards regulatory submission, we are very excited about what the future holds. With a strong team and a strong balance sheet we are well positioned to achieve the ambitious goals that we have set ourselves.

I would again like to express my thanks to our shareholders for their continued confidence and support, as well as to the teams at ResApp and our partners for their creativity, their commitment to high standards and their tenacity.

Sincerely,



Tony Keating
Chief Executive Officer and Managing Director
ResApp Health Limited