



ASX RELEASE: 10<sup>th</sup> JULY 2014

## **APPLABS INVESTS IN WORLD FIRST 3D FACIAL RECOGNITION PAIN APP**

### **HIGHLIGHTS**

- **Applabs invests \$250,000 in cash to acquire a 15% stake in Electronic Pain Assessment Tool (ePAT)**
- **ePAT is the worlds first 3D facial recognition application for the assessment of pain targeted at non-communicative people**
- **Curtin University major shareholder with 32.5%**
- **Development contract executed with nViso based in Switzerland who are one of the leading 3D facial imaging and emotion software companies**
- **ePAT to launch Android version November 2014**
- **Additional \$250,000 of private funding has been secured from a respected Australian specialist physician**
- **ePAT directors include Professor Jeff Hughes former Head, School of Pharmacy at Curtin University**
- **ePAT contracts Applabs to become the lead project manager**
- **Validation studies involving patients with dementia underway with funding through Alzheimer's Australia's dementia Research Foundation**
- **Dementia and Alzheimer's has a yearly global cost of \$605bn**  
(Source: Global impact of dementia 2013-2050 Report)

Applabs Technologies Ltd ("Applabs" or the "Company") (ASX Code: ALA) is pleased to announce it has executed an agreement to invest \$250,000 into Electronic Pain Assessment Technologies (ePAT) Pty Ltd to acquire a 15% shareholding post the current fundraising activities.

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The Electronic Pain Assessment Tool (ePAT) is the world's first 3D facial recognition and emotion application aimed at the detection of pain in adults. ePAT is being developed by Curtin University Professor Jeff Hughes and his team, which also comprises lecturer Kreshnik Hoti and PhD candidate Mustafa Atee. By automating the facial recognition component, the application will provide an objective way to detect an accurate level of pain in non-communicative people, such as patients with dementia.

Professor Jeff Hughes commented:

"There is tremendous subjectivity in the assessment of pain in patients currently. Our hope is that ePAT will provide a more accurate and consistent assessment of pain. The tool uses a combination of facial features and other validated physical and behavioral changes to calculate a pain score,"

"That pain score would then provide an indicator that, first of all, pain exists and, secondly, the severity of that pain so that the carer can then determine what is the best treatment for that particular patient,"

"In the future, what we would like to do is build smart technology into the system so it would start to learn from the assessment. It would look at a patient's face and determine what that assessment was on the last occasion and self-calibrate so it would become tailored for that particular patient,"

"We have focused our studies and validation firstly on patients with dementia as the global cost and impact it causes is a major issue. Through an application such as ePAT we will hopefully be able to provide better pain management which will improve a person's behaviour and cognition, making them easier to be cared for. It will have an enormous impact on the quality of life for patients with dementia and importantly it will also have an impact on the quality of life of carers"

### **Dementia Market**

Dementia is the term used to describe the symptoms of a large group of illnesses, with a progressive decline in a person's ability to function independently. It is a broad term used to describe a loss of memory, intellect, rationality, social skills and physical functioning. There are many types of dementia including Alzheimer's disease, vascular dementia, fronto temporal dementia and dementia with Lewy Bodies. dementia can happen to anybody, but it is more common after the age of 65.

The Global Impact of dementia 2013-2050 report estimates that the global yearly economic cost for dementia is \$604 billion. The report is the latest update on the figures published in the World Alzheimer's Report 2009 and the new estimates are an increase of 17% on the figures published in 2009, with data showing that the number of people with dementia will increase from 35 to 135 million by 2050. The

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report also predicts a shift in the distribution of the global burden of dementia. By 2050, 71% of all people with dementia will live in low or middle-income countries. (Source: **Global impact of Dementia 2013-2050 Report**)

In Australia there are more than 332,000 people living with dementia. This number is expected to increase by one third to 400,000 in less than ten years and without a medical breakthrough, the number of people with dementia is expected to be almost 900,000 by 2050. Each week, there are more than 1,700 new cases of dementia in Australia, which equates to approximately one person every 6 minutes.

An estimated 1.2 million people are involved in the care of a person with dementia, it is the third leading cause of death in Australia and there is no cure. The total direct health and aged care system expenditure on people with dementia was at least \$4.9 billion in 2009-10. By the 2060s, spending on dementia is set to outstrip that of any other health condition. It is projected to be \$83 billion (in 2006-07 dollars), and will represent around 11% of health and residential aged care sector spending. (Source: **Australian Institute of Health and Welfare (2012) Dementia**)

#### **EPAT Director and Advisor**

**Professor Jeff Hughes (BPharm(WAIT), GradDipPharm(WAIT), MPharm(Curtin), PhD (Curtin), MPS, AACPA**

Professor Hughes was Head, School of Pharmacy, Curtin University from 2009 - 2014. He is recognised as a leader in clinical pharmacy education and practice in Australia. He was the recipient of the 1998 Society of Hospital Pharmacists of Australia's Glaxo Medal of Merit and in 2001 received SPHA's Clinical Pharmacy award. Further, in 2004 Jeff's efforts in the areas of clinical pharmacy education and pharmacy research were acknowledged when he was named the Pharmaceutical Society of Australia's Pharmacist of the Year. In 2008, he was the recipient of the Eric Kirk Memorial Award presented for his contribution to the Pharmacy profession in Western Australia. He has also published over 200 research and professional papers, and contributed 17 books. Professor Hughes is a registered pharmacist, the co-proprietor of a community pharmacy and a practicing accredited pharmacist.

#### **Dr Paul Porter MBBS FRACP (Scientific Advisor)**

Dr Paul Porter is a specialist Paediatrician based in Western Australia. He holds senior clinical, research and teaching positions in General Paediatrics and Neonatology at Joondalup Health Campus and in Pediatric Emergency Medicine at Princess Margaret Hospital. He is a Clinical Lecturer at the School of Paediatrics and Child Health (Univ Western Australia) and Director of Clinical Training in Paediatrics at Joondalup Health Campus. Dr Porter is on the Human Research Ethics Committee at Joondalup Health Campus, and on the Clinical Senate of Western Australia. He is a Fellow of the Royal Australasian College of Physicians.

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Dr Porter also runs a private practice and has particular interests in acute care paediatric medicine, pain control and paediatric endocrinology.

#### **nViso Contract**

Electronic Pain Assessment Technologies (ePAT) Pty Ltd has executed a development agreement with nViso SA based in Lausanne, Switzerland to license its propriety 3D facial recognition software. nViso is a leading provider of emotion recognition software that interprets human facial micro-expressions and eye movements captured through video. nViso was the winner of the IBM beacon Award in 2013 for smart computing.

#### **Applabs Service Agreement**

Electronic Pain Assessment Technologies (ePAT) Pty Ltd has engaged Applabs on a 12-month Service Level Agreement (SLA) commencing August 2014. Under this agreement Electronic Pain Assessment Technologies (ePAT) Pty Ltd will have access to a range of services including Graphic Design, UI/UX Design, Social Media – Strategy & Implementation, Project Management and Technical Advice & Support. The value of the contract is \$30,030 plus GST.

#### **Investment Terms:**

Applabs has subscribed for \$250,000 worth of fully paid ordinary shares Electronic Pain Assessment Technologies (ePAT) Pty Ltd acquiring a 15% shareholding post the current capital raising activities.

For further information, please contact

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