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21-2-2019

Professor Andreas Fouras
Australian Lung Health Initiative Pty Ltd
169 Fullarton Road
Dulwich SA 5065

Dear Prof Fouras,

The Department of Thoracic and Sleep Medicine (DTSM), Central Adelaide Local Health Network, is pleased to support and participate as a project Supporting-Partner, in a bid titled:

“4D FUNCTIONAL DIAGNOSIS: A NEW FRONTIER IN LUNG HEALTH FOR CHILDREN”

for the Stage One component of the Medical Research Future Fund’s Frontier Health and Medical Research Program.

We understand the application is led by a joint venture consortium known as the Australian Lung Health Initiative Pty Ltd (ALHI), sited in Adelaide, and to comprise of 4Dx Ltd, the University of Adelaide, the South Australian Health and Medical Research Institute, Monash University, the Telethon Kids Institute WA, and Micro-X Ltd, as the lead Project Partners.

The proposed Partnership offers a unique opportunity to undertake world-leading research and clinical application in respiratory medicine, with the clear potential to transform the health of children and adults with respiratory disease, achieve substantial economic benefit in the Australian health, business and industrial spheres, and make a truly global impact on how respiratory diseases can be detected, treated and monitored.

This project will provide new insights into structure – function relationships which will be used to underpin new approaches to therapy for some of the most common, costly and deadly diseases affecting human health, including lung cancer (the commonest cause of cancer death), chronic obstructive pulmonary disease (4th leading cause of death and an

overall cost of greater than 8 billion/yr to the Australian economy) and asthma (suffered at some time by 1 in 10 Australians).

As a Supporting Partner, the actual respiratory health and disease studies will be part of the 5-year Stage 2 project period, given this Stage 1 application is successful, and the Stage 2 application that results is also successful.

The Adelaide DTSM is by far the largest clinical Respiratory specialist unit in South Australia and one of the biggest in the country. Our spectrum of activities includes the full range of conditions affecting the lung – from genetic diseases, to all acquired airways diseases including emphysema, lung cancer and interstitial fibrosis. The service has around 20 specialist physicians, and a range of scientific staff with skills ranging from complex physiology to wet-lab laboratory skills including the use of animal models of disease. Our research programs have attracted millions of dollars in category 1 funding from NHMRC and other sources.

Our direct involvement in Stage 1 will be to provide the clinical insights that will most effectively lead to fast-track clinical usage, specifically in the rapidly growing field of interventional pulmonology (IP). In large animal models we will be able to explore areas such as: endobronchial lung volume reduction in emphysema, bronchial thermoplasty in asthma, and therapy planning in lung cancer (including surgical stereotactic radiotherapy planning). The DTSM has the highest patient load in the state for these conditions and has a nationally recognised IP program. Furthermore, the DTSM is the state-wide referral centre for adult cystic fibrosis, thus will also contribute to and extend the use of the 4Dx technology beyond the paediatric area of this disease.

We will work collaboratively with the Department of Medical Physics in Radiation Oncology in adapting this new technology for improving cancer therapy.

We will also oversee the clinical aspects of the first Australian human studies with XV, using existing fluoroscopes and SaaS analysis at RAH. This will include identifying correct patient type(s), contributing to study design, ethics, approvals, etc, with the expectation that this work will commence in the middle of the Stage 1 year. We will then contribute to the design, and then conduct human clinical trials of XV in different key disease(s) in Stage 2, using the purpose-built human XV scanners.

In helping to underpin the respiratory health research aspects of the project as a Supporting Partner, during Stage 1, the DTSM will contribute significantly to the goals and objectives of the Partnership, through:

- a. collaboration and contributions to the joint development of projects and research programs within Stage 2, with details to be established during Stage 1;
- b. assistance with the design of Stage 2, including proof of concept, validation, and application projects
- c. provision of expert advice on the specific project areas that we have particular interest in as aligned with our joint expertise that will be beneficial for the project activities.

The DTSM is committed to working with all collaborating Partners and Supporting Partners of the joint venture submission during Stage 1, to identify ways to assist with the progress of Stage 1, and for the leveraging of funds in Stage Two.

We confirm that we understand IP arrangements, incorporating ownership rights and strategies for protecting Australia's interests as well as the strategies for translation and commercialisation of developed IP, will be put in place by agreement with collaborating

partners during Stage 1. These contracts will be in accordance with laws and regulations in Australia.

In the event that this application is successful we will execute a formal participant agreement to perform the roles and responsibilities set out in the application.

Yours sincerely,

A handwritten signature in cursive script, appearing to read "P Reynolds".

Paul Reynolds