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ASIA EDITION

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August 6, 2015 | News | By BioSpectrum Bureau

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Singapore: Australian pharmaceutical company Pharmaxis, and UK biotechnology company, Synairgen, have entered into a research collaboration to develop a selective inhibitor to the lysyl oxidase type 2 enzyme (LOXL2) to treat the fatal lung disease idiopathic pulmonary fibrosis (IPF).

IPF affects in the region of 100,000 people in the US. Current products are expected to produce global revenues in excess of $1.1 billion by 2017. The LOXL2 enzyme is being targeted because it is known to promote scar tissue which hardens and irreparably damages the lungs of IPF patients. It is hoped that the inhibition of LOXL2 will slow the build-up of scar tissue and improve survival rates that are worse than for many cancers.

The LOXL2 inhibitor program comes from a Pharmaxis chemistry platform that was recently acquired by Boehringer Ingelheim. Under the terms of the agreement Synairgen will fund further activity of the program at Pharmaxis, use its BioBank and in vitro lung model platform, and collaborate with the IPF research team at the University of Southampton to complete pre-clinical and early clinical development.

The IPF program will be managed by a joint steering committee through to the end of phase 1 or phase 2a clinical trials, at which time the collaboration will seek a license partner. Pharmaxis and Synairgen will share any licensing revenues in accordance with the ratio of total investment by the two companies at that time. The share of licensing revenues is expected to be approximately equal for a compound licensed for IPF after early clinical development. Pharmaxis will continue to develop compounds outside the collaboration for other indications where LOXL2 inhibitors have shown potential such as liver and kidney fibrosis, and metastatic cancer. The agreement does however allow for scenarios where the collaboration licenses its program for multiple indications.

Mr Gary Phillips, CEO, Pharmaxis said, "We have continued to make good progress in our preclinical LOX inhibitor program and in particular on LOXL2 small molecule inhibitors to treat various diseases where fibrosis is a major problem. The significant interest among leading clinicians and pharmaceutical companies in the role of LOXL2 in a number of different diseases has highlighted the need for us to collaborate for selected indications in order to fully exploit the potential value of

our intellectual property. Synairgen has a demonstrated excellence in respiratory drug development, having successfully licensed its inhaled IFN-beta Phase 2 program to AstraZeneca. We believe our collaboration with Synairgen will accelerate the development of a highly competitive once-a-day oral treatment for patients with IPF and enable Pharmaxis to develop LOXL2 inhibitors for other potential indications such as liver and kidney fibrosis, and cancer."

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Mr Richard Marsden, CEO, Synairgen said, "We are delighted to be collaborating with Pharmaxis in idiopathic pulmonary fibrosis, a severe and fatal lung disease. Pharmaxis has a proven competence in the discovery and development of novel molecules, making it an ideal partner. LOXL2 is a target which is of interest not only to our IPF clinical experts in Southampton but also to large pharmaceutical companies; in 2011 Gilead Sciences acquired Arresto Biosciences for $225 million for its Phase I LOXL2 targeting antibody simtuzumab and is currently conducting a large efficacy trial in IPF.

"Using existing financial resources from our fundraising in 2014, we will apply our BioBank platform of advanced human tissue models and understanding of respiratory biology to develop the LOXL2 inhibitor. We look forward to working closely with Pharmaxis and the world class academics at the University of Southampton to progress this opportunity into the clinic in patients with IPF."