

Press release

Synairgen plc

(‘Synairgen’ or the ‘Company’)

New data for the treatment of ‘severe’ influenza lung infection

Southampton, UK – 17 May 2010: Synairgen plc (LSE: SNG), the respiratory drug discovery and development company with a particular focus on viral defence, is pleased to announce promising data from SNG001, its inhaled interferon beta (“IFN beta”) product, in a new model of influenza. Data from its new *in vitro* lung re-infection model shows for the first time that SNG001 can prevent the spread of infection from cell to cell, even after an influenza infection has taken hold. The data will be presented later today at the American Thoracic Society’s International Conference (‘ATS’) in New Orleans.

In November 2009 Synairgen announced that SNG001, delivered to the lung at the first sign of symptoms (i.e. before the flu virus has taken hold in the chest), may prevent asthmatic and COPD patients from succumbing to influenza-induced exacerbations of their disease.

The data to be presented at the ATS suggests that the potential market for SNG001 may be much greater than previously thought; as patients with influenza may be treated both at an early and at a later stage following infection. This latest development is particularly significant for hospitalised patients with pulmonary complications due to influenza-like illness. These patients can continue to generate new virus in the lungs long after it has cleared from the nose. This may adversely affect outcomes (including mortality) as there are limited treatments currently available.

Professor Stephen Holgate, Co-Founder of Synairgen, commented, “*This is a very exciting development. There are currently very few therapeutic options for treating patients with severe influenza other than those that target the virus itself. If this therapy is as broad-reaching as we think it may be, it may transform the treatment of influenza viruses especially those that become drug resistant whilst appropriate vaccines are being developed.*”

Synairgen has submitted a patent application to protect this discovery and will seek to develop this application, including one suitable for influenza preparedness programmes, alongside its existing preventative antiviral programmes in asthma and COPD. The first of these, in asthma, commenced a Phase II trial in March 2010.

Richard Marsden, CEO of Synairgen, commented, “*This is potentially an important breakthrough in the treatment of flu virus infection rather than its prevention. This represents an exciting new development opportunity for our inhaled interferon beta product that extends beyond the existing opportunities identified for asthma and COPD.*”

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Notes for Editors

About Synairgen

Synairgen is a drug discovery and development company founded by Professors Stephen Holgate, Donna Davies and Ratko Djukanovic, focused on identifying and out-licensing new pharmaceutical products which address the underlying causes of asthma and COPD. Synairgen is listed on AIM (LSE: SNG).

Synairgen's researchers use advanced cell models incorporating human tissue and cells drawn from its biobank of clinical samples, which are obtained from well-characterised healthy control, asthma or COPD volunteers.

For more information about Synairgen please see www.synairgen.com.

Synairgen's interferon beta ('IFN-beta') programme

Synairgen is developing inhaled IFN-beta as a therapy to combat virus-induced asthma and COPD exacerbations.

Using *in vitro* human models, it was discovered that epithelial cells (cells which line the airways) from both subjects with asthma¹ and COPD have significantly weaker antiviral responses to the common cold virus than healthy control subjects. The addition of low levels of IFN-beta into the models restored antiviral responses (simulating aerosolised IFN-beta therapy). This suggests that local delivery of IFN-beta to the lungs could limit the spread of virus to lungs in subjects with respiratory disease and the consequent worsening of their symptoms.

Synairgen has entered into a supply and licence agreement for a patent-protected formulation of IFN-beta from the Rentschler Group in Germany.

Synairgen's Phase II study (SG005) in asthma commenced in March 2010. SG005 is a placebo-controlled Phase II study of inhaled interferon beta ('IFN-beta') for the treatment of exacerbations of asthma caused by respiratory viruses including influenza.

Influenza

According to the US Centers for Disease Control and Prevention² ('CDC') every year in the United States, on average:

- 5% to 20% of the population gets flu;
- more than 200,000 people are hospitalised from flu-related complications; and
- about 36,000 people die from flu-related causes.

Some people, such as older people, young children, pregnant women and people with certain health conditions (such as asthma, diabetes or heart disease) are at increased risk for serious complications from seasonal flu illness.²

The American Thoracic Society International Conference

The American Thoracic Society's International Conference is the principal global scientific meeting for basic scientists, drug developers and physicians specialising in respiratory diseases such as asthma and COPD (www.thoracic.org)

References

1. P. Wark et al. Asthmatic bronchial epithelial cells have a deficient innate immune response to infection with rhinovirus. *J Exp Med.* 2005; 201: 937-947
2. Centers for Disease Control and Prevention website www.cdc.gov/flu/keyfacts.htm