PRESS RELEASE

SYNAIRGEN PLC
('Synairgen' or the 'Company')

Preliminary biomarker data from SG004 clinical study indicates increased anti-viral activity of interferon beta in the lungs

Southampton, UK, 1 April 2009: As part of its SG004 Phase I trial in asthmatic volunteers, Synairgen is measuring a biomarker of anti-viral activity in the lungs. In cohort 2 of SG004, inhaled interferon beta ('IFN-beta') was shown to raise neopterin levels in sputum in a similar pattern to that seen in samples from SG003 (Phase I single dose study in non-asthmatics), thereby suggesting successful "turning on" of the body's anti-viral defences.

Neopterin is a recognised IFN-beta biomarker and has been measured in blood during IFN-beta studies in multiple sclerosis. Synairgen has developed a technique for measuring neopterin in sputum, which reflects anti-viral activity locally in the lung. SG004 is a four cohort, dose-escalating, placebo-controlled safety study in asthmatic volunteers. As announced on 17 March 2009, with the successful conclusion of cohort 2 of SG004, Synairgen has now completed two weeks of inhaled IFN-beta dosing in inhaled steroid-taking asthmatics at a dose predicted in Synairgen's model system to be efficacious. Biomarker levels are being monitored to confirm the biological activity of IFN-beta delivered to the lungs as Synairgen escalates the dose and increases the dosing frequency. The data is also useful to further support the original dosing rationale, and helps the Company set the dose for Phase II.

Commenting on these findings, Professor Stephen Holgate (Non-Executive Director and Co-Founder) said,

"*These encouraging results are very important for the programme. The data suggests that we have overcome the challenges inherent in protein delivery to the lungs and have activated the interferon beta receptor, which drives anti-viral defences. Alongside the progression into the third cohort of the study, this greatly increases our confidence of success in Phase II trials which are due to begin in early 2010.*"

Ends

For further information, please contact:

Synairgen plc Tel: + 44 (0) 2380 512 800
Richard Marsden, Managing Director
John Ward, Finance Director

Matrix Corporate Capital Tel: + 44 (0) 20 3206 7000
Alastair Stratton
Anu Tayal

Threadneedle Communications Tel: + 44 (0) 20 7653 9850
Graham Herring
Josh Royston

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 chronic obstructive pulmonary disease. 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 programme

Synairgen is developing inhaled IFN-beta for viral-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 asthma and COPD have significantly weaker anti-viral responses to the common cold virus than healthy control subjects. The addition of low levels of IFN-beta into the models (simulating aerosolised IFN-beta therapy) restored anti-viral responses, suggesting 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 successfully completed a Phase I study in non-asthmatic subjects (SG003) and is mid way through a Phase I study in controlled asthmatics taking inhaled corticosteroids (SG004).

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

Biomarkers

A biomarker is a substance used as an indicator of a biologic state. In this case Neopterin is a drug activity biomarker that is objectively measured and evaluated as an indicator of pharmacologic responses to a therapeutic intervention (i.e. inhaled IFN-beta).

Asthma statistics

- There are approximately 23 million asthmatics in the USA[2]
- The economic cost to the USA of asthma is $19.7 billion per year[3]
- Asthma accounts for 1.7 million emergency department visits per year in the USA[2]
- The cost of emergency department visits and in-patient care in relation to asthma in the USA is $4.7 billion[2]
- The average duration of a hospitalisation for an asthma exacerbation in the USA is 2.7 days at a cost of $9,078[4]
- 50% of the total cost of the asthma is apportioned to 10% of the asthmatic population with the severest disease[5]

COPD statistics

- COPD (chronic obstructive pulmonary disease) includes chronic bronchitis and emphysema
- COPD is forecast to be the third leading cause of death worldwide (after heart attack and stroke) by 2030[6]
- 12 million adults in the USA have reported a physician diagnosis of COPD. However, as many as 24 million adults have some evidence of impaired lung function, implying an under-diagnosis of this disease[7]
- The economic cost to the USA of COPD is $42.6 billion per year[3]
- Hospital care cost $11.3 billion[2] and in 2005 there were 721,000 hospitalizations for COPD in the USA[8]

Rhinovirus (common cold virus) and exacerbations (worsening of symptoms) of asthma and COPD

- Adults get an average of two to four colds per year, mostly between September and May. Young children suffer from an average of six to eight colds per year[9]
- Rhinovirus infections are the major cause of asthma exacerbations, accounting for 50% to 80% of all such attacks in both children and adults[10]
- 80-85% of COPD exacerbations are associated with viral or bacterial respiratory tract infections with rhinovirus (common cold virus) and Haemophilus influenzae thought to be the major contributors[11]

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