



PRESS RELEASE

SYNAIRGEN PLC (‘Synairgen’ or the ‘Company’)

Progress update: Clinical Trial with Interferon Beta in Asthmatic Volunteers

Southampton, UK – 17 March 2009: Synairgen (LSE: SNG) is delighted to announce the successful completion of two weeks of inhaled interferon beta (‘IFN-beta’) dosing in inhaled steroid-taking asthmatics at a dose predicted in Synairgen’s model system to be efficacious.

Synairgen’s inhaled IFN-beta therapy targets the debilitating effect of virus infections, typically the common cold, on asthma and COPD sufferers. The common cold causes up to 80% of hospitalisations associated with asthma and is also a significant cause of COPD exacerbations.

The Phase I study, known as SG004, using the Company’s exclusively in-licensed formulation of inhaled IFN-beta, is designed to establish its safety over a 14 day period in asthmatic volunteers who are currently taking inhaled corticosteroids. This is a prelude to Proof of Concept studies which are scheduled to commence early in 2010.

The first cohort of volunteers received a single low dose of IFN-beta. The second cohort received multiple doses of IFN-beta over a two week period at a level which, based upon the Company’s proprietary *in vitro* models, is considered to be sufficient to combat virus-driven exacerbations. The Company has now received authorisation to commence the third cohort. This means that, subject to there continuing to be an acceptable adverse event profile in the remainder of the study, Synairgen now has a dose which it can take forward into Phase II.

The SG004 study is being conducted by Synairgen in Southampton and at the Medicines Evaluation Unit in Manchester, both sites with renowned expertise in specialist respiratory trials. The two remaining cohorts will assess the safety of escalating doses and the trial is expected to be completed this summer.

Richard Marsden, Managing Director of Synairgen, said:

“This is a significant and exciting landmark in our lead programme. We have a dose that can be progressed into Proof of Concept studies. Inhaled interferon beta could have a life-changing impact for many people whose asthma and COPD worsens when the common cold spreads from the nose to the chest. Planning for the Proof of Concept Phase IIa trials in asthma and COPD is well underway.”

Ends

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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 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.

Asthma statistics

- There are approximately 23 million asthmatics in the USA²
- The economic cost to the USA of asthma is \$19.7 billion per year³
- Asthma accounts for 1.7 million emergency department visits per year in the USA²
- The cost of emergency department visits and in-patient care in relation to asthma in the USA is \$4.7 billion²
- The average duration of a hospitalisation for an asthma exacerbation in the USA is 2.7 days at a cost of \$9,078⁴
- 50% of the total cost of the asthma is apportioned to 10% of the asthmatic population with the severest disease⁵

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 2030⁶
- 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 disease⁷
- The economic cost to the USA of COPD is \$42.6 billion per year³
- Hospital care cost \$11.3 billion² and in 2005 there were 721,000 hospitalizations for COPD in the USA⁸

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 year⁹
- Rhinovirus infections are the major cause of asthma exacerbations, accounting for 50% to 80% of all such attacks in both children and adults¹⁰
- 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 contributors¹¹

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