Press release

Synairgen plc

('Synairgen' or the 'Company')

AZD9412 Update

- Cold infections did not affect trial patients' asthma in the INEXAS study as much as predicted, meaning that the drug's effects on severe exacerbations could not be determined
- Treatment with AZD9412 switched on antiviral responses in the lungs, improved morning peak flow (a measure of lung function), and was well tolerated
- The study however, did not meet AstraZeneca's predefined criteria for progression, and they have elected to return the rights to AZD9412 to Synairgen
- Synairgen will conduct further analysis of the data and determine future development routes

Southampton, UK – 27th April 2017: Synairgen plc (LSE: SNG), the respiratory drug discovery and development company, today provides an update on AZD9412 (inhaled interferon beta).

In October 2016 Synairgen provided the market with an update on the INEXAS trial of AZD9412, a novel, inhaled interferon beta that supports the immune system by correcting a deficiency which makes patients vulnerable to respiratory tract viral infections (primarily common cold viruses). The trial was stopped early due to a low severe exacerbation event rate which compromised an assessment of this endpoint (number of severe exacerbations).

Treatment with inhaled interferon beta did however switch on the lungs' antiviral defences (as measured by blood levels of the antiviral biomarker CXCL10), have a beneficial effect on lung function (Morning Peak Expiratory Flow: difference of 19.7 litres per minute average over the first 7 days of treatment (p=0.01)), and was well tolerated. Effects on biomarkers, lung function and the good tolerability profile were consistent with the Company's own Phase II trial (SG005).

The study did not however meet AstraZeneca's predefined criteria for progression, and they have elected to return the rights to AZD9412 to Synairgen.

Further analysis of samples from the trial is being completed by AstraZeneca. Data from this sample analysis and the clinical trial data will be licensed to Synairgen. Synairgen will complete the data analysis and will use this as a basis to determine the future direction of the programme.

Professor Stephen Holgate CBE, Medical Research Council Clinical Professor of Immunopharmacology at the University of Southampton, said: "*We believe that the biomarker, lung function and safety data from this and our previous study continue to support the potential of inhaled interferon beta as a treatment for vulnerable patients whose disease control is badly affected when they get a cold. We are particularly interested in the potential for COPD, where exacerbations are associated with disease progression and an increased risk of dying. Since we licensed this programme to AstraZeneca, the weight of data linking*

viruses to COPD exacerbations has increased, and the link of colds to secondary bacterial infections has become widely accepted."

Richard Marsden, CEO of Synairgen, said: *"We remain positive about the potential of inhaled interferon beta, particularly for patients with COPD who suffer due to respiratory viruses. Once we have completed the data analysis, we will provide an update on the programme and our plans for future development."*

The information communicated in this announcement contains inside information for the purposes of Article 7 of the Market Abuse Regulation (EU) No. 596/2014.

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Notes for Editors

About Synairgen

Synairgen is a respiratory drug discovery and development company founded by University of Southampton Professors Stephen Holgate, Donna Davies and Ratko Djukanovic. The business, focused primarily on asthma and COPD, uses its differentiating human biology BioBank platform and world-renowned international academic KOL network to discover and develop novel therapies for respiratory disease. Leveraging its scientific and clinical facilities

at Southampton General Hospital, the Company uses *in vitro* and *ex vivo* models to progress opportunities into clinical development. The BioBank of human samples is used in these models to increase confidence in the likelihood of successful drug development. Core to Synairgen's business strategy is the realisation of value via licensing transactions. In August 2015 the Company entered into a collaboration with Pharmaxis to develop an oral LOXL2 inhibitor to reduce fibrosis in patients with idiopathic pulmonary fibrosis (IPF). Synairgen is quoted on AIM (LSE: SNG). For more information about Synairgen, please see www.synairgen.com

About the INEXAS trial:

In the trial, named INEXAS (details available on www.clinicaltrials.gov), asthma patients were dosed with placebo or AZD9412 at the onset of common cold symptoms. Previous research had shown that common colds can cause severe exacerbations of asthma and that boosting the antiviral defences of the lung with AZD9412 (inhaled interferon beta, and antiviral protein) during this time could prevent exacerbations from developing.