Press release

Synairgen plc

('Synairgen' or the 'Company')

Preliminary statement of results for the year ended 31 December 2017

Southampton, UK – 15 March 2018: Synairgen (LSE: SNG), the respiratory drug discovery and development company, today announces its preliminary statement of audited results for the year ended 31 December 2017.

Operational highlights – including post period end

- Successful completion of preclinical pharmacology and toxicology studies of PXS-5382A, a compound from the anti-fibrotic LOXL2 inhibitor programme, and initiation of a Phase I clinical trial
- Revision of collaboration terms for LOXL2 programme with Pharmaxis where Synairgen received a £5 million upfront payment and circa 17% of any future partnering proceeds from all fibrotic indications in return for Pharmaxis taking on full responsibility for the programme
- Synairgen regained full control of inhaled interferon beta programme from AstraZeneca, and conducted further analyses of the INEXAS trial in asthma leading to a new clinical development plan for the product in COPD
- First patients were dosed in the Company's Phase II trial of inhaled SNG001 in patients with COPD in February

Financial highlights

- Revenues for the year were £5.03 million (2016: £nil)
- Research and development expenditure for the year was £2.06 million (2016: £2.42 million)
- Profit from operations for the year ended 31 December 2017 was £1.62 million (2016: loss of £3.44 million)
- Cash, cash equivalents and deposit balances of £6.85 million at 31 December 2017 (2016: £4.77 million). The Group remains debt free

Commenting on the Annual Results, Simon Shaw, Chairman of Synairgen said: *"Synairgen ended 2017 in a strong position. The developments with our inhaled interferon beta asset and Pharmaxis agreement demonstrate Synairgen's commitment to innovative development programmes and the value we can bring to collaborative projects. We are well set to pursue interferon beta in COPD and add to our pipeline in the coming period."*

- Ends –

This announcement contains inside information as defined in Article 7 of the Market Abuse Regulation No. 596/2014 ("MAR")

For further enquiries, please contact:

Synairgen plc
Richard Marsden, Chief Executive Officer
John Ward, Finance Director
Tel: + 44 (0) 23 8051 2800

finnCap
Geoff Nash, James Thompson (Corporate Finance)
Stephen Norcross, Simon Johnson (Corporate Broking)
Tel: + 44 (0) 20 7220 0500

Consilium Strategic Communications (Financial Media and Investor Relations)
Mary-Jane Elliott / Sukaina Virji / Laura Thornton
synairgen@consilium-comms.com
Tel: +44 (0) 20 3709 5701

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). In December 2017 the collaboration agreement was amended as Pharmaxis took on full responsibility for the programme, with Synairgen receiving a £5 million upfront payment and circa 17% of any future partnering proceeds from all fibrotic indications. Synairgen is quoted on AIM (LSE: SNG). For more information about Synairgen, please see www.synairgen.com

Chairman's and Chief Executive Officer's Review

OPERATING REVIEW

Summary

We closed 2017 in a strong position, having met a number of challenges during the year. AstraZeneca returned rights to the inhaled interferon beta (IFN-β) asset, enabling Synairgen to progress the programme for COPD, where there is significant unmet medical need. We also made good progress with Pharmaxis, successfully taking a LOXL2 inhibitor through preclinical activities into a Phase I clinical trial. In response to considerable interest in the role of LOXL2 as a molecular target in non-lung indications, we updated the collaboration agreement with Pharmaxis assuming all future development, licensing and financing responsibilities. Synairgen received £5m and a 17% interest in any future licence income received by Pharmaxis across all potential fibrotic indications.

Inhaled interferon beta programme

Clinical need and identification of high risk patients
Respiratory viruses (e.g. those responsible for common cold and flu infections) do not often cause serious illness in healthy people. In contrast, in patients with asthma and COPD these infections are much more likely to spread to the lungs, worsening pre-existing lung inflammation, and exacerbating disease symptoms. There is a great need for an antiviral therapy that can be delivered directly to the lungs when patients are at risk from these common respiratory viruses.

Inhaled IFN-β to boost the lungs' antiviral defences
IFN-β is a natural protein made by lung cells when a virus is detected. IFN-β 'orchestrates' many antiviral pathways. *In vitro* experiments have shown IFN-β production to be deficient or insufficient in asthma and COPD patients' lung cells, compared with cells from healthy individuals when infected by respiratory viruses. This makes these patient groups more susceptible to infection. Synairgen has progressed inhaled IFN-β into clinical trials as a drug to be given at the time of respiratory virus infection to boost the lung's defences.

Asthma or COPD
Both asthma and COPD patients suffer from exacerbations (acute worsening of disease) of their disease. These exacerbations are strongly linked to common viral infections. COPD patients can also exacerbate due to bacterial lung infections and other environmental factors. Up until recently, the difficulty of excluding bacterial infections in COPD led us to advancing inhaled IFN-β for asthma over COPD, even though the health economic impact of viral infections is much greater for COPD.

Asthma
Inhaled IFN-β has boosted markers of antiviral defence in the lungs in three clinical trials in asthma, confirming successful delivery to the target organ and demonstrating proof of activation of the mechanism. In all clinical trials completed so far, inhaled IFN-β has been well tolerated. In the two Phase II clinical trials that have been conducted in asthma (SG005 by Synairgen and INEXAS by AstraZeneca) the drug has significantly accelerated a recovery in lung function in patients who have been infected with a respiratory virus. In both trials, a subset of more difficult to treat patients had better asthma control during viral infection. However, the rate of exacerbation (defined as requiring oral steroids or hospitalisation) was too low (less than 10%) to determine whether the drug was providing benefit. This rate of exacerbation was similar to in a 2017 trial conducted by Aviragen where the rate was found to be approximately 7%[1]. Thus exacerbations, when they do occur in asthma, are strongly linked to viral cold infections (up to 80% being caused by colds[2]), however the chance that a patient is going to exacerbate when they get their next cold was deemed likely to be too low to support an attractive pricing point for the drug, making progression in asthma challenging. AstraZeneca returned the asset to Synairgen for 'strategic reasons'.

The move towards COPD
In all trials undertaken to date in asthma, the biomarker responses and the clinical effect were encouraging, particularly the positive improvements in lung function. The issue was that the asthma population, whilst easier to characterise for trial enrolment purposes, did not see a

sufficient number of exacerbations to properly measure the impact of drug. Synairgen has long identified COPD as a disease where virally-driven exacerbations are recognised to be a significant health economic burden. COPD is the second most common cause of unplanned hospitalisation after cardiovascular disease[3], and it is no coincidence that most of these exacerbations occur in the winter months.

Hitherto, the challenge in COPD was to identify patients, who were infected with a virus rather than bacteria or other causes of exacerbation. The upshot of this was that the trial size required in order to have sufficient evidence of the drug's effect would have resulted in an excessively long duration, high cost and would still have run the risk of significant numbers of non-virally infected patients being treated, thereby potentially diluting the results of the trial.

Substantial progress was made on both of these elements in 2017:

- First, two papers were published which clarify the interaction of viruses with COPD. One paper shows that, when looking at all colds in the study period, the risk that a cold will cause an exacerbation of COPD is around 50%[4], much greater than the <10% figure in asthma. The second paper[5] shows that there is a strong interaction between seasonal viruses and bacteria which permanently colonise the COPD patients' lungs, greatly increasing the chance that a patient will exacerbate. These papers both establish, what most hospitals know through experience, that COPD sufferers are significantly more likely to have severe virus-induced exacerbations than asthmatics.
- Second, a new point of care diagnostic test has been launched in 2017 which enables the confirmation of the presence of a respiratory virus in less than 60 minutes. This test will be used in clinical trials to confirm the presence of the virus. This makes clinical trials in COPD feasible as we can exclude patients who present to healthcare providers with only bacterial or environmental drivers of their condition. It also makes the trials more efficient and less costly to run; in the two asthma trials we were able to confirm the presence of a virus in 63% of patients in SG005, and 48% of patients in the INEXAS trial. In the recently started COPD trial, 100% of patients in the efficacy analysis will have a confirmed viral infection prior to initiation of treatment. This will allow the drug to show its activity against the target viral infections without the dilutive effect of trial subjects who are exacerbating for some other reason (bacterial or environmental).

COPD development

We are progressing inhaled IFN-β in COPD. Starting with a two-part Phase II clinical trial (commenced February 2018), we are assessing patient safety in 10 COPD patients without viral infections in Part 1 (anticipated to complete in Q2 2018), prior to assessing efficacy parameters in 80 COPD patients with confirmed virus in Part 2, who will be dosed for 14 days. All of the patients in Part 2 will be tested for the presence of virus prior to dosing. This trial, which is anticipated to finish during the 2018/19 winter season, is designed to pave the way for a pivotal Phase IIb clinical trial. Preparatory work for the Phase IIb clinical trial will commence in 2018.

LOXL2 collaboration with Pharmaxis

LOXL2 in fibrosis

LOXL2 is an enzyme which 'knits together' collagen fibres, increasing the rigidity of tissue as a component of the fibrosis pathology. LOXL2 is implicated in major fibrotic diseases such as the liver disease NASH (Non-alcoholic Steatohepatitis), heart fibrosis, kidney fibrosis and, the lung disease idiopathic pulmonary fibrosis (IPF).

Collaboration with Pharmaxis

In the collaboration with Pharmaxis, Synairgen assisted in the development and selection of compounds for progression, and used our BioBank and *in vitro* model platform to generate compelling data to support the development of compounds for IPF. This included generating data from a fibroblastic focus model (developed in collaboration with the University of Southampton) using cells from IPF patients, in which we showed that treatment with LOXL2 inhibitors had the potential to reduce lung tissue stiffness. Lung tissue stiffness is a key factor in IPF as it makes it increasingly difficult for a patient to breathe.

Synairgen completed the pre-clinical package for PXS-5382 and commenced a Phase I clinical trial in Q4 2017.

Large pharma interest in non-IPF indications and renegotiation of collaboration agreement

During the year, it became evident that potential large pharma partners were very interested in the collaboration's compounds. However, that interest was not solely in IPF but included significant other non-respiratory indications, particularly NASH. Pharmaxis generated persuasive data in preclinical models showing that the inhibitors could reduce liver fibrosis and improve liver function. It became increasingly important that we reconfigure the collaboration with Pharmaxis to allow the lifting of certain constraints in the collaboration agreement to allow Pharmaxis to pursue a multi-compound multi-indication deal. In December 2017 we permanently passed full development, financial and licensing responsibilities to Pharmaxis in return for £5m and a retained interest in the programme of 17% of the fibrotic indication licensing revenue received by Pharmaxis. In its half yearly report for the six months ended 31 December 2017 dated 15 February 2018, Pharmaxis stated that it plans to partner the LOXL2 program in the second half of 2018 following Phase I trial readout. For more information on the development and licensing of the LOXL2 inhibitors visit www.pharmaxis.com.

New opportunities

The LOXL2 programme is an example of the type of collaboration we seek. It is a demonstration of the value of our approach and technology. In this collaboration we contributed expertise and used our human biology based approach which utilised our BioBank-based *in vitro* model platform and the strong ties we have with the University of Southampton to add value in a collaboration. We are actively assessing new opportunities with similar potential.

FINANCIAL REVIEW

Statement of Comprehensive Income

The profit from operations for the year ended 31 December 2017 was £1.62 million (2016: loss £3.44 million). Revenues of £5.03 million (2016: £nil) comprised the £5 million payable by Pharmaxis as consideration for the change in terms (as discussed above) and the balance of revenues are attributable to materials provided to AstraZeneca. Research and development expenditure for the year amounted to £2.06 million (2016: £2.42 million), and was focussed primarily on two programmes, namely the LOXL2 programme and preparation for the interferon beta Phase II clinical trial in COPD.

Other administrative costs for the year amounted to £1.35 million (2016: £1.02 million), with the increase being attributable to higher staff costs on account of bonuses. As the Group was in profit, there was a reduction in the research and development tax credit from £0.59 million to £0.13 million. The profit after tax for 2017 was £1.76 million (2016: loss of £2.82 million) and the basic earnings per share amounted to 1.93p (2016: basic loss per share of 3.08p).

Statement of Financial Position and cash flows

At 31 December 2017, net assets amounted to £6.56 million (2016: £4.69 million), including net funds of £6.85 million (2016: £4.77 million).

The principal elements of the £2.08 million increase over the year ended 31 December 2017 (2016: £2.94 million decrease) in net funds were:

- Cash generation from operations of £1.45 million (2016: £3.32 million used in operations); and
- Research and development tax credits received of £0.62 million (2016: £0.33 million).

The increase in trade and other receivables (2017: £0.63 million, 2016: £0.09 million) is attributable to amounts billed or billable to Pharmaxis at 31 December 2017 as a result of the transaction referred to above. The increase in trade and other payables (2017: £1.10m, 2016: £0.86m) is attributable to the bonus accrual at 31 December 2017 (2016: £nil).

OUTLOOK

We closed the financial year in a strong position. We have full possession of the inhaled IFN-β programme which is being progressed to prevent or attenuate exacerbations of COPD caused

by respiratory viruses and remain very excited by this asset. We also have a lasting interest in the potentially high value LOXL2 programme being progressed by Pharmaxis. In addition, we have a number of potentially attractive new programmes under review which gives us confidence in further development of our collaborative pipeline in the coming periods.

References

1. Aviragen Therapeutics presentation Directing Next Generation Direct-Acting Antivirals May 2017
2. J.T. Kelly et al. Host immune responses to rhinovirus: Mechanisms in asthma*. J Allergy Clin Immunol 2008; 122: 671-682*
3. Department of Health. An Outcomes Strategy for Chronic Obstructive Pulmonary Disease (COPD and Asthma in England. Published July 2011.
4. Johnston NW, et al. Colds as predictors of the onset and severity of COPD exacerbations *International Journal of COPD* 2017:12: 839-848
5. Wilkinson TMA, et al. A prospective, observational cohort study of the seasonal dynamics of airway pathogens in the aetiology of exacerbations in COPD *Thorax 2017;0:1-9. Doi:10.1136/thoraxjnl=2016-209023*

Consolidated Statement of Comprehensive Income
for the year ended 31 December 2017

	Notes	**Year ended 31 December 2017 £000**	Year ended 31 December 2016 £000
Revenue		**5,025**	-
Research and development expenditure		**(2,061)**	(2,418)
Other administrative expenses		**(1,349)**	(1,024)
Total administrative expenses		**(3,410)**	(3,442)
Profit/(Loss) from operations		**1,615**	(3,442)
Finance income		**14**	38
Profit/(Loss) before tax		**1,629**	(3,404)
Tax	2	**132**	587
Profit/(Loss) and total comprehensive income/(loss) for the period attributable to equity holders of the parent		**1,761**	(2,817)
Earnings/(Loss) per ordinary share	3		
Basic earnings/(loss) per share (pence)		**1.93p**	(3.08p)
Diluted earnings/(loss) per share (pence)		**1.87p**	(3.08p)

Consolidated Statement of Changes in Equity
for the year ended 31 December 2017

	Share capital £000	Share premium £000	Merger reserve £000	Retained deficit £000	Total £000
At 1 January 2016	913	25,771	483	(19,820)	7,347
Issuance of ordinary shares	1	-	-	-	1
Recognition of share-based payments	-	-	-	154	154
Loss and total comprehensive loss for the year	-	-	-	(2,817)	(2,817)
At 31 December 2016	914	25,771	483	(22,483)	4,685
Recognition of share-based payments	-	-	-	113	113
Profit and total comprehensive income for the year	-	-	-	1,761	1,761
At 31 December 2017	**914**	**25,771**	**483**	**(20,609)**	**6,559**

Consolidated Statement of Financial Position
as at 31 December 2017

	31 December 2017 £000	31 December 2016 £000
Assets		
Non-current assets		
Intangible assets	**45**	62
Property, plant and equipment	**12**	13
	57	75
Current assets		
Inventories	**56**	55
Current tax receivable	**71**	560
Trade and other receivables	**633**	90
Other financial assets – bank deposits	**2,000**	1,661
Cash and cash equivalents	**4,845**	3,104
	7,605	5,470
Total assets	**7,662**	5,545
Liabilities		
Current liabilities		
Trade and other payables	**(1,103)**	(860)
Total liabilities	**(1,103)**	(860)
Total net assets	**6,559**	4,685
Equity		
Capital and reserves attributable to equity holders of the parent		
Share capital	**914**	914
Share premium	**25,771**	25,771
Merger reserve	**483**	483
Retained deficit	**(20,609)**	(22,483)
Total equity	**6,559**	4,685

Consolidated Statement of Cash Flows
for the year ended 31 December 2017

	Year ended 31 December 2017 £000	Year ended 31 December 2016 £000
Cash flows from operating activities		
Profit/(Loss) before tax	**1,629**	(3,404)
Adjustments for:		
Finance income	**(14)**	(38)
Depreciation	**7**	9
Amortisation	**17**	19
Share-based payment charge	**113**	154
Cash flows from operations before changes in working capital	**1,752**	(3,260)
(Increase)/Decrease in inventories	**(1)**	1
(Increase)/Decrease in trade and other receivables	**(548)**	17
Increase/(Decrease) in trade and other payables	**243**	(76)
Cash generated from/(used in) operations	**1,446**	(3,318)
Tax credit received	**621**	330
Net cash generated from/(used in) operating activities	**2,067**	(2,988)
Cash flows from investing activities		
Interest received	**19**	43
Purchase of property, plant and equipment	**(6)**	(5)
(Increase)/Decrease in other financial assets	**(339)**	2,061
Net cash (used in)/generated from investing activities	**(326)**	2,099
Cash flows from financing activities		
Proceeds from issuance of ordinary shares	**-**	1
Net cash generated from financing activities	**-**	1
Increase/(Decrease) in cash and cash equivalents	**1,741**	(888)
Cash and cash equivalents at beginning of the year	**3,104**	3,992
Cash and cash equivalents at end of the year	**4,845**	3,104

Notes

1. Basis of preparation

The financial information of the Group set out above does not constitute "statutory accounts" for the purposes of Section 435 of the Companies Act 2006. The financial information for the year ended 31 December 2017 has been extracted from the Group's audited financial statements which were approved by the Board of directors on 14 March 2018 and will be delivered to the Registrar of Companies for England and Wales in due course. The financial information for the year ended 31 December 2016 has been extracted from the Group's audited financial statements for that period which have been delivered to the Registrar of Companies for England and Wales. The reports of the auditors on both these financial statements were unqualified, did not include any references to any matters to which the auditors drew attention by way of emphasis without qualifying their report and did not contain a statement under Section 498(2) or Section 498(3) of the Companies Act 2006. Whilst the financial information included in this preliminary announcement has been prepared in accordance with the recognition and measurement criteria of International Financial Reporting Standards ('IFRSs') as adopted by the European Union, this announcement does not itself contain sufficient information to comply with those IFRSs. This financial information has been prepared in accordance with the accounting policies set out in the December 2017 report and financial statements.

2. Tax

The tax credit of £132,000 (2016: £587,000) relates to research and development tax credits in respect of the year ended 31 December 2017 (£71,000) and an adjustment in respect of prior periods (£61,000).

3. Earnings/(Loss) per ordinary share

Basic earnings/(loss) per share ('EPS' or 'LPS') is calculated by dividing the profit/(loss) attributable to ordinary equity holders of the parent company by the weighted average number of ordinary shares in issue during the year.

For diluted earnings per share, the weighted number of ordinary shares in issue is adjusted to assume conversion of dilutive potential ordinary shares, being share options where the exercise price is less than the average market price of the Company's ordinary shares during the year and where performance conditions have been met or, in the case of options where the performance period is not completed, are being met.

Where there is a loss (as for the year ended 31 December 2016), the loss attributable to ordinary shareholders and weighted average number of ordinary shares for the purpose of calculating the diluted earnings per ordinary share are identical to those used for basic loss per share. This is because the exercise of share options would have the effect of reducing the loss per ordinary share and is therefore antidilutive under the terms of IAS 33.

The earnings/losses and number weighted average number of shares used in the calculations are as follows:

	Earnings £000	**Shares 000**	**2017 EPS pence**	Losses £000	Shares 000	2016 LPS Pence
Basic earnings/(loss) per share	**1,761**	**91,363**	**1.93**	(2,817)	91,351	(3.08)
Effect of additional shares under option	**-**	**2,873**	**(0.06)**	-	-	-
Diluted earnings/(loss) per share	**1,761**	**94,236**	**1.87**	(2,817)	91,351	(3.08)