Press release

Synairgen plc

('Synairgen' or the 'Company')

Preliminary statement of results for the year ended 31 December 2018

Southampton, UK – 25 February 2019: Synairgen (LSE: SNG), the respiratory drug discovery and development company, today announces its preliminary statement of audited results for the year ended 31 December 2018.

Operational highlights – including post period end

- Successfully advanced inhaled interferon beta (IFN-beta) programme into the clinic for the treatment or prevention of virally-induced COPD exacerbations
- Part 1 of SG015 clinical trial completed, showing that SNG001 was well tolerated and that antiviral biomarker analysis showed COPD patients (without viral infection) inhaling SNG001 had significantly increased antiviral activity in the lungs
- Raised £2.7 million (net of expenses) in October 2018 to increase the scope of our inhaled IFN-beta clinical trial, enhancing our business development opportunity for the COPD programme
- Part 2 of SG015 trial commenced with 13 trial sites now active
- Our Australian partner, Pharmaxis, has satisfactorily completed Phase I trials and 3 month toxicology for 2 compounds, enabling it to progress the next strategic steps of the LOXL2 inhibitor programme

Financial highlights

- Revenues for the year were £0.11 million (2017: £5.03 million, which included a non-recurring £5 million upfront payable by Pharmaxis)
- Research and development expenditure for the year was £3.23 million (2017: £2.06 million) reflecting investment in the development of the IFN-beta programme
- Loss from operations for the year ended 31 December 2018 was £4.13 million (2017: profit of £1.62 million)
- Cash, cash equivalents and deposit balances of £5.33 million at 31 December 2018 (2017: £6.85 million). The Group remains debt free

Commenting on the Annual Results, Simon Shaw, Chairman of Synairgen said:
"2018 was a year of excellent operational progress for Synairgen. We were particularly pleased to advance our inhaled IFN-beta programme into a clinical trial to treat or prevent exacerbations of COPD and to increase the scope of the trial to support future partnering activity. We were also pleased that our partner Pharmaxis announced completion of the three-month toxicology studies and await further steps in the advancement of this opportunity. We look forward to continued progress in 2019."

- Ends -

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

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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.

Synairgen is currently conducting a two-part Phase II trial evaluating SNG001, the Company's inhaled interferon beta (IFN-beta) product. The Phase II trial, called SG015, has been designed to assess the safety of SNG001 in COPD patients and its clinical benefit in these patients when they have a cold or flu infection, a major driver of COPD exacerbations.

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 a share of at least 17% (net of allowable expenses) of any receipts from any onward licensing by Pharmaxis of the LOXL2 inhibitors in 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

2018 has been a year of excellent operational progress. We successfully advanced our inhaled interferon beta (IFN-beta) programme, to treat or prevent COPD exacerbations, into the clinic and, in September 2018, we raised £2.7 million (net of costs) to expand the number of patients to be included in our clinical trial, to increase the power of the study and enhance our chance of partnering our inhaled IFN-beta programme for COPD. In addition, our Australian partner, Pharmaxis, has completed Phase I clinical trials for the LOXL2 inhibitor programme with positive results and we now eagerly await the next steps for this product where Synairgen has a significant financial interest in its success.

Inhaled interferon beta programme

Inhaled IFN-beta progression in COPD to treat or prevent virus-induced exacerbations
We have progressed inhaled IFN-beta into COPD, where the risk that a patient will exacerbate due to a cold infection is much higher (approximately 50%[1]) compared to asthma (<10%[2]), with some identifiable sub-groups at higher risk than others.[3] The cost to both patient and healthcare providers of virus-induced COPD exacerbations is also substantial – in England alone, COPD is the second most common cause of unplanned hospitalisations after cardiovascular disease.[4]

We have long known that COPD represents a very substantial market for inhaled IFN-beta, addressing a large number of patients who are expensive to treat. The historical barrier to progressing into COPD was the complexity around identifying the virus-positive patients for treatment. COPD patients can suffer from bacterial infections as well as viral infections and, up until recently, distinguishing between viral and bacterial infections, at the point of assessment, was too great an obstacle to allow progression of inhaled IFN-beta into COPD clinical trials.

Our ability to progress with COPD has been enabled by the availability of a novel point of care test launched by bioMérieux. This test confirms the presence of a respiratory virus in a patient within 45 minutes of a nasal or throat swab being taken. Utilisation of this new diagnostic test means that we can be sure that every patient we treat in the COPD trial is virus positive. This will eliminate the background "noise" associated with the inclusion of patients with no viral infection in the trial and thereby reduce the required trial size, and therefore cost, to obtain meaningful results.

We are starting treatment at the onset of respiratory symptoms in virus-positive patients. At the moment, COPD patients are not encouraged to visit their GP/pulmonologist if they have a cold. This is because there are no broad spectrum antiviral therapeutic options available to limit the spread of virus to the lungs. The advent of this new diagnostic technology changes this paradigm. The bioMérieux point of care test enables rapid identification of common bacterial and viral pathogens. For the virus-positive patients, the availability of an antiviral therapy with the potential to either prevent exacerbations, or to limit their severity, would be a major breakthrough.

In Q1 2018 we commenced a two-part Phase II clinical trial in COPD patients.

Part 1 of Phase II trial
The first part of the trial was conducted to confirm the safety of inhaled IFN-beta in this patient population. Inhaled IFN-beta has been well tolerated in all of the asthma trials; COPD patients' lungs are different and it was necessary to assess safety prior to dosing patients in part two of the trial. Our target patients have typically lost approximately 40% of their lung function, their lungs are often colonised by bacteria, and their lung inflammation is driven by different factors than in asthma. During this first phase, we were pleased to ascertain that inhaled IFN-beta was well tolerated in COPD patients. We also undertook a biomarker assessment. Patients in this part of the trial were free of viral infection and inhalation of IFN-beta should activate their antiviral defences. Indeed, as reported in June 2018, the antiviral biomarkers assessed 24 hours after administration of a dose of inhaled IFN-beta were elevated. This increase in

relevant biomarkers was very similar to that which we had observed in asthma. We were particularly pleased to see firstly, the robust antiviral response in these older patients' lungs that have typically been exposed to many years of cigarette smoke, and secondly, that this effect mirrored *in vitro* findings in COPD patients' lung cells from our models where IFN-beta is effective.

Part 2 of Phase II trial
Completion of part one enabled the commencement of part two of the trial. In part two, COPD patients without infection are screened and entered into a waiting phase. We are building this pool of 'waiting patients' to approximately 200 patients. Patients then contact the trial site as soon as they develop a cold or COPD symptoms which are suspected to be caused by a virus. Upon arrival at the trial site, patients are tested to determine whether they have a respiratory virus; those that are positive are treated with either inhaled IFN-beta or placebo for 14 days.

In October 2018 we completed a placing which raised £2.7 million (net of costs), primarily to increase the COPD trial size from 80 patients to 120 patients in order to be able to focus on clinical endpoints, to enhance the chance of obtaining a positive result, and ultimately to partner the programme when the trial is completed.

The trial is progressing well and we have now initiated 13 trial sites, all in the UK. As at 15 February 2019, 181 patients have been screened and 133 patients have been entered into the 'pool', waiting to develop virus symptoms, ahead of the confirmatory virus testing. In the first three months of the trial (up to 11 January), 22 patients developed symptoms and were tested for a respiratory virus; 3 out of the 22 tested positive and were subsequently dosed. This reflected the mild start to the respiratory virus season as reported by Public Health England (PHE). In the subsequent five weeks to 15 February, PHE reported an uplift in influenza like illness (an indication of the impact of respiratory viruses on healthcare system) and this has been reflected in an uplift in the number of patients dosed in our trial. Since 11 January a further 30 patients have been tested, of whom 15 were virus positive and dosed. The virus test has therefore proved its value, particularly during the late autumn and early winter, screening out patients who, historically, may have been dosed based on their symptoms, but who had no potential to gain from an antiviral. The following viruses have been detected: enterovirus/rhinovirus; RSV; coronavirus; human metapneumovirus; and influenza. The milder start to this virus season means that we now expect the trial to continue into the 2019/2020 virus season.

Size of market opportunity
COPD is a common disease which consumes substantial healthcare resources, particularly in the non-summer months. COPD patients will typically have one to two colds per year. Each cold carries a risk of exacerbation of approximately 50%. In the USA, the average cost of a hospitalisation following a visit to the Emergency Department for a COPD patient is $29,000.[5] Pathogen testing at the onset of an exacerbation is being recommended to reduce unnecessary antibiotic prescribing for viral exacerbations. The need for a broad spectrum antiviral therapy is substantial. We expect considerable interest from potential partners for this programme and have commenced a dialogue with several large pharma companies.

LOXL2 inhibitor programme

In collaboration with Pharmaxis we identified and progressed a LOXL2 inhibitors programme from the pre-clinical stage through to commencement of a Phase I clinical trial. Initially the collaboration was focussed on idiopathic pulmonary fibrosis (IPF), an area of expertise for Synairgen.

Over the two years of the collaboration, our interactions with potential large pharma partners led to an expansion of the programme to also embrace other fibrotic diseases, including non-alcoholic steatohepatitis (NASH, a type of liver fibrosis), heart fibrosis, and kidney fibrosis. In December 2017 we elected to pass responsibility for the further development and commercialisation of these compounds to Pharmaxis, who were better placed to conduct research in the non-lung fibrotic arena, in return for £5 million and a share of at least 17% (net of allowable expenses) of any receipts from any onward licensing by Pharmaxis of the LOXL2 inhibitors in fibrotic indications.

During 2018, Pharmaxis successfully completed Phase I trials for two compounds, and showed best in class inhibition of the LOXL2 enzyme in these clinical trials. Post period-end (17 January

2019), Pharmaxis announced that the 3 month toxicology studies had been successfully completed for both compounds, allowing them to progress the next strategic steps for the programme. We continue to track Pharmaxis' progress with great interest.

FINANCIAL REVIEW

Statement of Comprehensive Income

The loss from operations for the year ended 31 December 2018 was £4.13 million (2017: profit £1.62 million). Revenues for the year amounted to £0.11 million (2017: £5.03 million). 2017 included a non-recurring £5 million payable by Pharmaxis as consideration for the change in collaboration terms. The 2018 revenue comprised fee for service work in relation to the LOXL2 programme. Research and development expenditure for the year amounted to £3.23 million (2017: £2.06 million), and was focussed almost entirely on the IFN-beta Phase II clinical trial in COPD and associated pharmaceutical development costs.

Other administrative costs for the year amounted to £1.01 million (2017: £1.35 million), with the decrease being attributable to lower staff bonus costs and reduced legal costs. Interest receivable increased on account of higher average cash balances held and the increase in base rate. The tax credit increased from £0.13 million in 2017 to £0.80 million in 2018. The 2017 credit was at lower levels than preceding years because the Group was in profit and this limited the amount of research and development tax credit which could be claimed. The loss after tax for 2018 was £3.30 million (2017: profit of £1.76 million) and the basic loss per share amounted to 3.47p (2017: basic earnings per share of 1.93p).

Statement of Financial Position and cash flows

At 31 December 2018, net assets amounted to £6.03 million (2017: £6.56 million), including cash and bank deposits of £5.33 million (2017: £6.84 million).

The principal elements of the £1.51 million decrease over the year ended 31 December 2018 (2017: £2.08 million increase) in cash and bank deposits were:

- Cash used in operations: £3.89 million (2017: £1.45 million generated from operations);
- Research and development tax credits received: £0.07 million (2017: £0.62 million);
- Capital expenditure on property, plant and equipment: £0.39 million (2017: £0.01 million); and
- Share issue proceeds (net of costs): £2.67 million (2017: £nil).

The other significant changes in the statement of financial position were:

- The net book value of property, plant and equipment increased from £0.01 million to £0.37 million at 31 December 2018. This was due to the purchase of 13 bioMérieux multiplex PCR virus detection machines (one for each clinical trial site) at a total cost of £0.36 million. The remainder of the capital expenditure was for laboratory and IT equipment;
- Current tax receivable increased from £0.07 million to £0.80 million on account of the higher R&D tax credit as discussed above;
- Trade and other receivables decreased from £0.63 million to £0.22 million on account of amounts receivable from Pharmaxis reducing by some £0.45 million;
- Trade and other payables decreased from £1.10 million to £0.78 million. The major driver behind this reduction is the lack of bonus accrual at 31 December 2018; and
- Share capital and share premium increased from £0.91 million and £25.77 million to £1.09 million and £28.26 million respectively, an aggregate increase of £2.67 million on account of the fundraising in October 2018 whereby 18.00 million shares of 1p each were issued at a premium of 15p primarily to fund the enlarged Phase II trial. Costs of the issue amounted to £0.21 million, which were taken to the share premium account.

OUTLOOK

Operationally we are wholly focussed on our inhaled IFN-beta programme in COPD and engaging with potential partners for this programme in advance of Phase II data availability. We are pleased that Pharmaxis have announced completion of the three month toxicology studies which were necessary to progress partnering discussions in disease areas which are of great interest to large pharma. We continue to assess new opportunities to complement our existing COPD programme.

References

1. Johnston NW, *et al*. Colds as predictors of the onset and severity of COPD exacerbations *International Journal of COPD* 2017:12: 839-848
2. (i) Aviragen Therapeutics presentation Directing Next Generation Direct-Acting Antivirals May 2017. (ii) Synairgen analysis of INEXAS trial results, dated 27 September 2017 (https://www.synairgen.com/wp-content/uploads/2018/06/ifnb-press-release-final-26-sept-002.pdf)
3. 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*
4. Department of Health. An Outcomes Strategy for Chronic Obstructive Pulmonary Disease (COPD) and Asthma in England. Published July 2011
5. Singh JA, *et al*. Utilization due to chronic obstructive pulmonary disease and its predictors: a study using the U.S. National Emergency Department Sample (NEDS). *Respiratory Research 2016; 17:1*

Consolidated Statement of Comprehensive Income
for the year ended 31 December 2018

	Notes	**Year ended 31 December 2018 £000**	Year ended 31 December 2017 £000
Revenue		**105**	5,025
Research and development expenditure		**(3,232)**	(2,061)
Other administrative expenses		**(1,005)**	(1,349)
Total administrative expenses		**(4,237)**	(3,410)
(Loss)/Profit from operations		**(4,132)**	1,615
Finance income		**36**	14
(Loss)/Profit before tax		**(4,096)**	1,629
Tax	2	**795**	132
(Loss)/Profit and total comprehensive (loss)/income for the period attributable to equity holders of the parent		**(3,301)**	1,761
(Loss)/Earnings per ordinary share	3		
Basic (loss)/earnings per share (pence)		**(3.47)p**	1.93p
Diluted (loss)/earnings per share (pence)		**(3.47)p**	1.87p

Consolidated Statement of Changes in Equity
for the year ended 31 December 2018

	Share capital £000	Share premium £000	Merger reserve £000	Retained deficit £000	Total £000
At 1 January 2017	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
Issue of ordinary shares	180	2,700	-	-	2,880
Transaction costs in respect of share issue	-	(209)	-	-	(209)
Recognition of share-based payments	-	-	-	98	98
Loss and total comprehensive loss for the year	-	-	-	(3,301)	(3,301)
At 31 December 2018	**1,094**	**28,262**	**483**	**(23,812)**	**6,027**

Consolidated Statement of Financial Position
as at 31 December 2018

	31 December 2018 £000	31 December 2017 £000
Assets		
Non-current assets		
Intangible assets	**29**	45
Property, plant and equipment	**374**	12
	403	57
Current assets		
Inventories	**56**	56
Current tax receivable	**795**	71
Trade and other receivables	**216**	633
Other financial assets – bank deposits	**50**	2,000
Cash and cash equivalents	**5,284**	4,845
	6,401	7,605
Total assets	**6,804**	7,662
Liabilities		
Current liabilities		
Trade and other payables	**(777)**	(1,103)
Total liabilities	**(777)**	(1,103)
Total net assets	**6,027**	6,559
Equity		
Capital and reserves attributable to equity holders of the parent		
Share capital	**1,094**	914
Share premium	**28,262**	25,771
Merger reserve	**483**	483
Retained deficit	**(23,812)**	(20,609)
Total equity	**6,027**	6,559

Consolidated Statement of Cash Flows
for the year ended 31 December 2018

	Year ended 31 December 2018 £000	Year ended 31 December 2017 £000
Cash flows from operating activities		
(Loss)/Profit before tax	**(4,096)**	1,629
Adjustments for:		
Finance income	**(36)**	(14)
Depreciation	**24**	7
Amortisation	**16**	17
Share-based payment charge	**98**	113
Cash flows from operations before changes in working capital	**(3,994)**	1,752
Increase in inventories	**-**	(1)
Decrease/(Increase) in trade and other receivables	**426**	(548)
(Decrease)/Increase in trade and other payables	**(326)**	243
Cash (used in)/generated from operations	**(3,894)**	1,446
Tax credit received	**71**	621
Net cash (used in)/generated from operating activities	**(3,823)**	2,067
Cash flows from investing activities		
Interest received	**27**	19
Purchase of property, plant and equipment	**(386)**	(6)
Decrease/(Increase) in other financial assets	**1,950**	(339)
Net cash generated from/(used in) investing activities	**1,591**	(326)
Cash flows from financing activities		
Proceeds from issuance of ordinary shares	**2,880**	-
Transaction costs in respect of share issue	**(209)**	-
Net cash generated from financing activities	**2,671**	-
Increase in cash and cash equivalents	**439**	1,741
Cash and cash equivalents at beginning of the year	**4,845**	3,104
Cash and cash equivalents at end of the year	**5,284**	4,845

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 2018 has been extracted from the Group's audited financial statements which were approved by the Board of directors on 22 February 2019 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 2017 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 2018 report and financial statements.

2. Tax

The tax credit of £795,000 (2017: £132,000) relates to research and development tax credits in respect of the year ended 31 December 2018.

3. (Loss)/Earnings per ordinary share

Basic (loss)/earnings per share ('LPS' or 'EPS') is calculated by dividing the (loss)/profit 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 2018), 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 losses/earnings and number of weighted average number of shares used in the calculations are as follows:

	Losses £000	**Shares 000**	**2018 LPS pence**	Earnings £000	Shares 000	2017 EPS pence
Basic (loss)/earnings per share	**(3,301)**	**95,263**	**(3.47)**	1,761	91,363	1.93
Effect of additional shares under option	**-**	**-**	**-**	-	2,873	(0.06)
Diluted (loss)/earnings per share	**(3,301)**	**95,263**	**(3.47)**	1,761	94,236	1.87