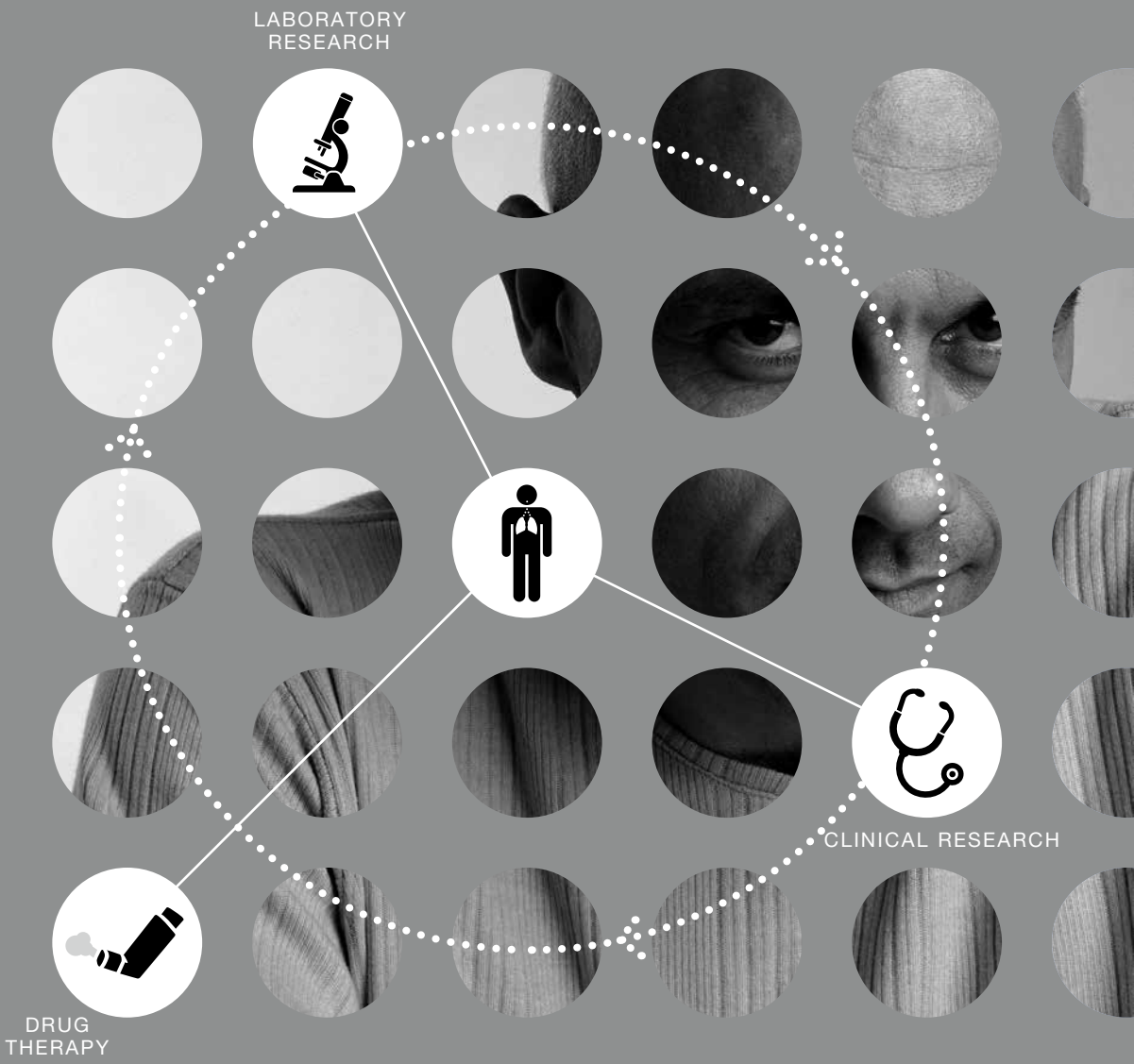
Annual Report and Accounts 2013



synairgen plc

Stock symbol: LSE:SNG
www.synairgen.com

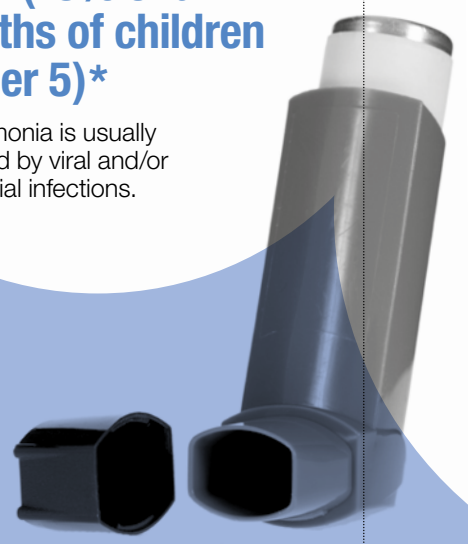
Contents

Respiratory disease is an area of significant unmet clinical need:

1.1

million children under 5 years old are killed by pneumonia every year (18% of all deaths of children under 5)*

Pneumonia is usually caused by viral and/or bacterial infections.



235

million people currently suffer from asthma globally*

64

million people have Chronic Obstructive Pulmonary Disease (COPD)*

COPD is a collective term for chronic bronchitis and emphysema and more than 3 million people died of COPD in 2005 (representing 5% of all deaths in that year)

Synairgen's advanced cell models: a translational research platform

Respiratory research has been hampered by the inability of animal models to truly replicate disease pathology and chronicity as well as the impact of environmental factors such as viruses, cigarette smoke and other inflammatory agents. To overcome such issues, Synairgen, in collaboration with the University of Southampton, has developed a number of advanced cell models using tissue and cells from human volunteers. Synairgen has accumulated a Biobank of clinical samples of blood, sputum, biopsies and bronchial epithelial cells obtained from a mix of well-characterised asthma or COPD volunteers and healthy control subjects. Using the cell-based models, Synairgen can analyse the complex interactions between disease and triggers of disease within lung tissue and use this knowledge to discover, develop and validate novel drug targets. Once targets have been validated in the laboratory, Synairgen's clinical team has the proven experience and capability to design and run appropriate Phase I and II proof of concept clinical trials.

Synairgen's interferon beta programme (SNG001)

Observations made in the cell-based models revealed that cells lining the airways of asthmatics were particularly susceptible to the common cold on account of a poor immune response mediated by a deficiency in interferon beta ('IFN-β'). The fact that this deficiency could be remedied by the addition of IFN-β in the asthma and COPD models provided the basis for the clinical development programme which followed. This culminated in a Phase II proof of concept trial in asthma which read out during 2012. Exacerbations (acute deterioration of symptoms) represent the greatest unmet clinical need in asthma and COPD, and the common cold causes up to 80% of asthma exacerbations. Discussions are ongoing for the outlicensing of the programme.

Future opportunities

During the last few years, Synairgen has focused on its translational research platform to develop SNG001. This technology and Synairgen's unique experience can add value to other respiratory development opportunities and a number of external opportunities have been identified for review and potential in-licensing.

* Source: World Health Organisation

Synairgen is a respiratory drug discovery and development company

Strategy

Using its research platform (human tissue models of respiratory disease, employing Synairgen's Biobank) and its clinical trial capabilities, Synairgen's strategy is to identify novel drug targets, progress them through early stage clinical trials and out-license them to partners for progression to market.

Highlights for the year ended 31 December 2013

- Ongoing licensing discussions for SNG001
- Further developments being identified for Synairgen's advanced technology platform
- Research and development expenditure for the year: £1.3 million (2012: £1.5 million)
- Post-tax loss for the year: £2.0 million (2012: £2.3 million)
- Cash, cash equivalents and bank deposits at 31 December 2013: £1.3 million (2012: £3.1 million)
- Balance sheet strengthened post year-end with fundraising of £1.5 million (gross) completed in March 2014

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Strategic Report

The directors present their Strategic Report for the year ended 31 December 2013.

Principal activities
Synairgen plc is the holding company for Synairgen Research Limited, a respiratory drug discovery and development company.

Operating Review

The Company has made significant progress during the year on its lead programme; the development of inhaled SNG001. This included further positive scientific data from the analysis of samples from the Phase II clinical trial; the formulation of clear options for the delivery and the development of the product; and substantial interaction with a number of potential licensing partners.

SNG001 for asthma and COPD
For asthma and COPD patients, Synairgen's inhaled SNG001 is being developed as a broad spectrum anti-viral therapy to be taken at the onset of cold (or influenza) symptoms to boost the lungs' anti-viral defences. The objective is to treat and/or attenuate a deterioration of asthma or COPD symptoms, by limiting the spread of viral infections to the lung and prevent life-threatening severe exacerbations that require intensive treatment. As a measure of how severe respiratory viruses can be for these patients, it has been reported that up to 80% of asthma exacerbations are linked to common cold infections. In a Phase II clinical trial, in the more severe patients, SNG001 has significantly reduced asthma symptoms, improved lung function and produced an encouraging reduction in the number of severe exacerbations.

During the year we have conducted further analysis of samples of sputum (phlegm) from patients who were dosed with SNG001 in the Phase II trial. This work showed a significant reduction in markers of inflammation and a significant increase in measurable anti-viral activity in the lung during a cold infection. This is important because it clearly demonstrates that the effects observed in the clinical trial can be explained through the expected mechanism of action.

During the same period we have also evaluated regulatory options, assessed the market potential and health economic factors, considered aerosol delivery device options and conducted device development work. In addition, we have considered different clinical trial options for both of the asthma and COPD indications and discussed these with contract research organisations. We have done this both in consultation with and independently of potential partners.

Severe Viral Lung Infections
The clinical and non-clinical data we have generated in the last few years provides a rationale for considering the use of inhaled SNG001 in patients hospitalised with a severe viral lung infection. We are discussing the potential for inhaled SNG001 in this area with various stakeholders including sections of the US government.

Licensing Strategy
We are pleased with the progress to date of licensing discussions. Whilst there can be no guarantee that an agreement will be completed, we anticipate that the terms of a final agreement will be in line with the Board's expectations.

Future Opportunities
We use human tissue models of disease to conduct our research. It was the use of these models by the academic founders of Synairgen and their collaborators that led to the initial IFN-beta deficiency discovery in asthma and COPD that the Company has subsequently progressed into Phase II. During the last few years, we have extensively and almost exclusively used this translational research platform, including our Biobank of characterised human tissue, to support the development of SNG001: increasing the rationale; addressing questions about dose and different viruses; and supporting biomarker testing. This technology and Synairgen's unique background/experience can add value to other development opportunities for asthma and COPD. To that end, we have identified a number of external discovery/development programmes which will be reviewed in detail and considered for in-licensing in coming periods.

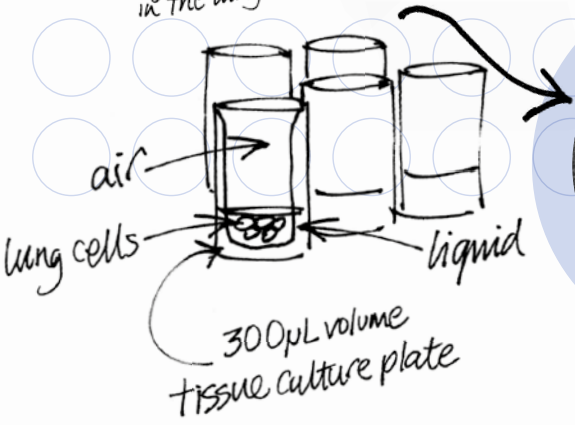
Key performance indicators ('KPIs')
The Board considers that the most important KPIs are non-financial and relate to the progress of the scientific programmes which are discussed in the preceding section of this report.

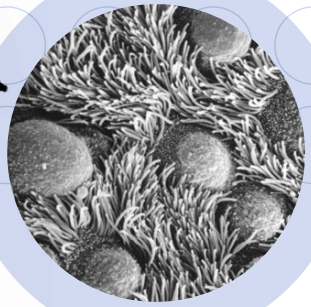
The most important financial KPIs are the cash position and the operating loss of the Group. At 31 December 2013 cash and deposit balances amounted to £1.29 million (2012: £3.09 million) and were above budgeted levels. The operating loss of £2.28 million (2012: £2.49 million) was also favourable to the budgeted loss for the year.

Recreating the human lung in the laboratory

Epithelial cells (the cells that line airways of the lung) obtained from patients are grown in tissue culture plates

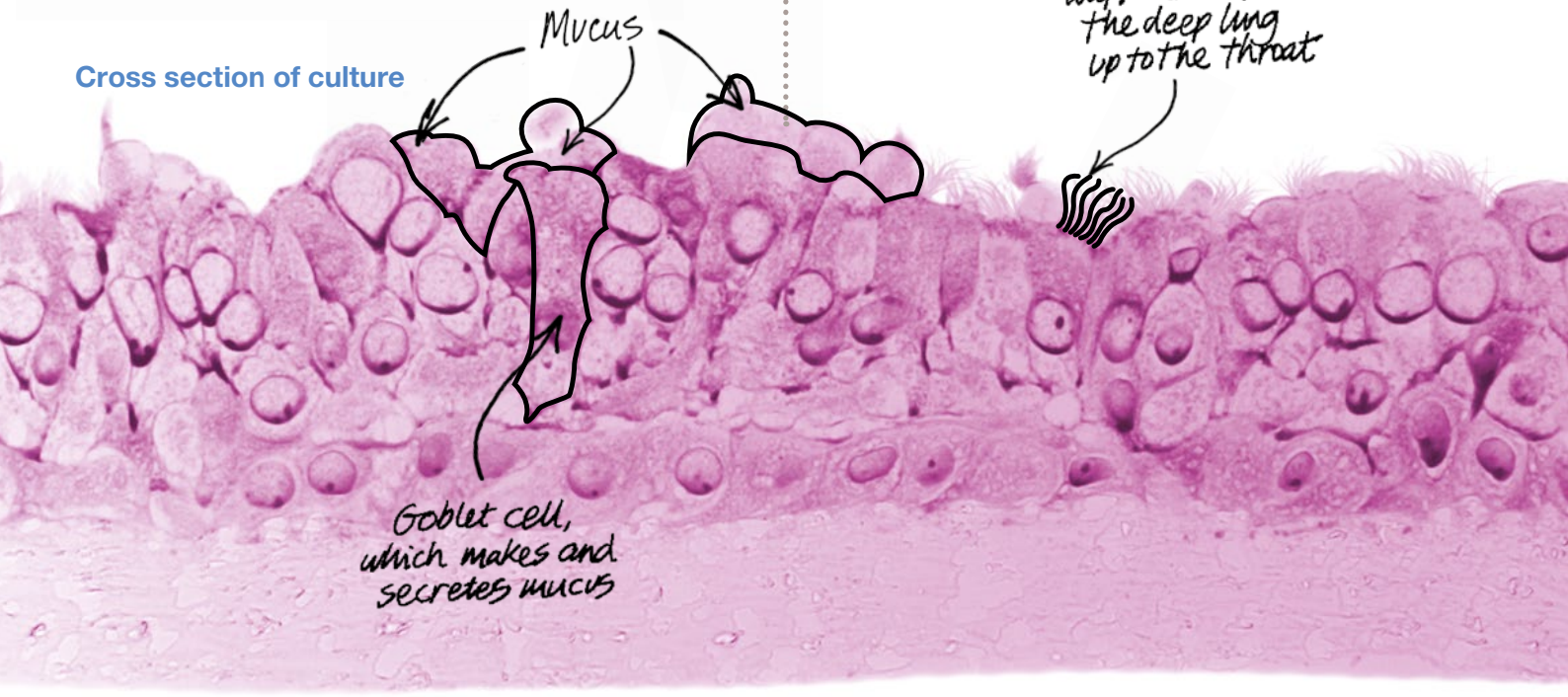
Just as they are in the lung, cultured cells are fed from liquid below (as if fed from the bloodstream) and exposed to the air above. This 'tricks' the cells into behaving as if they were back in the lung.





Top down view of epithelial cells grown at an air-liquid interface, which develop cilia and secrete mucus in the same way as those in the human lung

Cross section of culture



Financial Review

The Financial Review should be read in conjunction with the consolidated financial statements of the Company and Synairgen Research Limited (together the 'Group') and the notes thereto on pages 23 to 36. The consolidated financial statements are presented under International Financial Reporting Standards as adopted by the European Union. The financial statements of the Company continue to be prepared in accordance with UK Generally Accepted Accounting Practice and are set out on pages 37 to 40.

Statement of Comprehensive Income

The loss from operations for the year ended 31 December 2013 was £2.28 million (2012: £2.49 million). Research and development expenditure for the year amounted to £1.29 million (2012: £1.51 million). The proportionate reduction in research and development expenditure was due to the completion during 2012 of the asthma Phase II study (SG005). The most significant items of continuing research and development expenditure during the year have been the analysis of data from SG005 and the planning/evaluation of next stage of the interferon beta programme in asthma and COPD.

Other administrative costs for the year amounted to £0.99 million and remained in line with the previous year (2012: £0.98 million). The research and development tax credit for the year was £0.22 million (2012: £0.21 million). The loss after tax for the year was £2.04 million (2012: £2.25 million) and the loss per share was 2.72p (2012: loss of 3.12p).

Statement of Financial Position and cash flows

At 31 December 2013, net assets amounted to £1.58 million (2012: £3.42 million), including net funds, as detailed below in Capital structure and funding, of £1.29 million (2012: £3.09 million).

The principal elements of the £1.8 million decrease over the year ended 31 December 2013 (2012: £0.26 million decrease) in net funds were:

- Cash used in operations of £2.04 million (2012: £2.75 million outflow);
- Research and development tax credits received of £0.24 million (2012: £0.25 million);
- Investment into intangible assets (patents and licences) £0.02 million (2012: £0.14 million); and
- Share issue proceeds (net of costs) £nil (2012: £2.35 million).

Capital structure and funding

The Group is funded by equity capital, reflecting the early stage nature of its discovery and development programmes.

The Group considers its capital to be its total equity, which at 31 December 2013 amounted to £1.58 million (2012: £3.42 million). The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns to equity holders of the Company and benefits to other stakeholders and to maintain an optimal capital structure to reduce the cost of capital. The Group manages this objective through tight control of its cash resources and, upon reaching significant drug development programme milestones (to decrease investment risk), by raising additional equity from shareholders to meet its forecast future cash requirements.

Net funds held by the Group at 31 December 2013 amounted to £1.29 million and comprised cash and cash equivalents, short-term deposits (with original maturities of greater than three months and less than one year) as shown below:

	31 Dec			30 June		
	2013 £m	2012 £m	2011 £m	2011 £m	2010 £m	2009 £m
Short-term deposits	0.46	1.43	2.45	3.40	3.68	1.98
Cash and cash equivalents	0.83	1.66	0.90	1.49	1.33	5.96
Net funds	1.29	3.09	3.35	4.89	5.01	7.94

The Group did not have any bank borrowings as at 31 December 2013 (2012: £nil).

There have been five significant issues of shares with the following amounts (net of costs) raised: £0.62 million (August 2003); £8.98 million (from IPO on AIM in October 2004); £6.20 million (June 2009); £2.50 million (June 2011); and £2.35 million (July 2012). The other major sources of funding received by the Group from the formation of the business until 31 December 2013 have been: research and development tax credits of £2.46 million, bank interest of £1.62 million, and revenues from collaborative work of £0.60 million.

Fundraising post year-end

On 10 March 2014, the Company raised £1.5 million (gross) for working capital purposes by issuing 3,125,000 new ordinary shares at 48p each.

Treasury policy and financial risk management

Credit risk

The Group follows a risk-averse policy of treasury management. Sterling deposits are held with one or more approved UK-based financial institutions and in the Institutional Cash Series plc Institutional Sterling Liquidity Fund managed by BlackRock Investment Management (UK) Limited. The Group's primary treasury objective is to minimise exposure to potential capital losses whilst at the same time securing prevailing market rates.

Interest rate risk

The Group's cash held in current bank accounts is subject to the risk of fluctuating base rates. An element of the Group's financial assets is placed on fixed-term interest deposits. The interest rate profile of financial assets is illustrated in note 16 to the financial statements.

Currency risk

During the year under review, the Group was exposed to Euro and US dollar currency movement as a small element of its research and development expenditure is denominated in these currencies. The Group does not routinely hedge against this exposure.

Principal risks and uncertainties

The Board considers that the principal risks and uncertainties facing the Group may be summarised as follows:

- Reliance on the interferon beta programmes

All of the Group's resources are focused on the three interferon beta programmes. Whilst these are three separate indications (asthma, COPD and severe viral lung infections), there is a risk that failure in one indication may have a negative impact upon the others.

- Failure to generate innovative discoveries

There can be no guarantee that the Group will successfully develop new pharmaceutical products.

- Loss of the Biobank

The Group's Biobank of well-characterised human tissue, which has been built up over several years, is a key element of its technology platform and is very important in relation to the development of future opportunities.

The Group follows a defined policy to minimise the chances of loss of the Biobank, including storing it in a number of different locations at Southampton General Hospital and monitoring the storage temperature 24 hours a day.

- Clinical development and regulatory risk

The development of pharmaceutical drugs requires the necessary safety and efficacy to be demonstrated in clinical programmes in order to meet the requirements of the appropriate regulatory bodies. There can be no guarantee that the necessary safety or efficacy will be demonstrated or that the clinical trials will not be delayed or extended. There can be no guarantee that any of the Group's therapies will be able to obtain or maintain the necessary regulatory approvals.

The Group seeks to reduce this risk by closely monitoring the progress of recruitment on its clinical trials, drawing on the experience of its Founders, seeking advice from regulatory advisers, and holding consultations with the appropriate regulatory bodies.

- Intellectual property risk

The commercial success of the Group depends on its ability to obtain patent protection for its pharmaceutical discoveries in the US, Europe and other countries and to preserve the confidentiality of its know-how. There is no guarantee that patent applications will succeed or be broad enough to provide protection for the Group's intellectual property rights and exclude competitors with similar pharmaceutical products. The success of the Group is also dependent on non-infringement of patents, or other intellectual property rights, held by third parties. Competitors and third parties may hold intellectual property rights which the Group may not be able to license upon favourable terms, potentially inhibiting the Group's ability to develop and exploit its own business. Litigation may be necessary to protect the Group's intellectual property which may result in substantial costs.

The Group seeks to reduce this risk by seeking patent attorney advice that patent protection will be available prior to investing in a project, by seeking patent protection where appropriate and by minimising disclosure to third parties.

- Commercial risk

There can be no guarantee that the Group will succeed in securing and maintaining the necessary contractual relationships with licensing partners for its programmes under development. Even if the programmes are successfully out-licensed and pharmaceutical products are brought to market by a partner, there is no guarantee that such products will succeed in the marketplace.

The Group seeks to reduce this risk by structuring its development programmes to meet the needs and requirements of its potential partners and by engaging with partners who have the appropriate experience, resource and interest to bring such pharmaceutical products to the global marketplace.

- Competition risk

The Group's current and potential competitors include pharmaceutical and biotechnology companies and academic institutions, many of whom have significantly greater financial resources than the Group. There can be no assurance that competitors will not succeed in developing products that are more effective or economic than any developed by the Group, or which would render the Group's products non-competitive or obsolete.

- Funding risk

The Group continues to consume cash resources. Until the Group generates positive net cash inflows from successful out-licensing transactions and commercialisation of its products, it remains dependent upon securing additional funding through the injection of capital from share issues. The Group may not be able to generate positive net cash flows in the future or attract such additional funding required at all, or on suitable terms. In such circumstances, the Group's discovery and development programmes may be delayed or cancelled and the business operations curtailed.

The Group seeks to reduce this risk through tight financial control, prioritising programmes which will generate the best returns and keeping shareholders informed on progress.

- Dependence on Founders, senior management and key staff

The Founders and certain members of staff are highly skilled scientists and clinicians. The Group has deliberately pursued a lean headcount policy to conserve financial resources. Failure to continue to attract and retain such individuals could adversely affect operational results.

The Group seeks to reduce this risk by appropriate incentivisation of staff through participation in long term equity incentive schemes.

By order of the Board

John Ward
Company Secretary

19 March 2014

Scientific Review – Improving the likelihood of success in drug development

Prof. Stephen Holgate
Non-executive Director

Dr Phillip Monk
Chief Scientific Officer

Only one in six drugs that enter clinical development will be registered for clinical use[1].

The drug development process usually comprises three clinical phases prior to an application for a marketing authorisation:

- Phase I trials are conducted in a small number of patients (20 – 80) and are focussed on safety.
- Phase II trials are conducted in a larger group (up to a few hundred) and are designed to test proof of principle or concept, looking for evidence that the agent has engaged the proposed therapeutic target producing a beneficial effect on a relevant disease outcome measure, as well as providing further evidence of safety.
- Phase III trials are conducted in larger numbers of patients still (from a few hundred to several thousand) and are aimed at confirming efficacy with statistical significance in different patient populations using a range of outcome measures and to gain information on rarer side effects.

Greatest attrition in the drug development process occurs in Phase II proof of concept studies, where drugs often fail due to lack of efficacy or safety concerns. By this stage, two to three years of clinical development and significant investment has been made in the development programme. Improving the predictability of preclinical studies for a positive clinical outcome, a key element of 'Translational Medicine', is crucial to reducing the risk of failure at Phase II and beyond, by ensuring that the right drug targets are selected prior to initiation of costly late-stage clinical development and that they are evaluated in a patient population which is likely to respond to the specific treatment.

Human tissue models are more likely to be predictive of clinical outcome

Traditionally, many drug targets in respiratory disease have been selected on the basis of activity in animal models, which were considered to replicate some aspects of diseases such as asthma or COPD, but not the whole disease.

There are a number of difficulties with this approach[2]. Whilst certain disease mechanisms can be modelled, it is difficult, if not impossible, to model the complexity of chronic diseases such as asthma and COPD, that develop over many years as a function of an individual's genetic makeup and environmental factors operating over the life-course. Fundamental differences in biology between animals and humans can also be problematic. For example, salbutamol is an important drug used in the treatment of asthma (Ventolin® manufactured by GSK is probably the best known branded asthma product). Taken by inhaler, salbutamol acts quickly to relax airway smooth muscle and overcome the bronchospasm characteristic of asthma. Similarly, in the laboratory salbutamol relaxes the airways in a human lung tissue model in one to two minutes[3]. However, in a rat lung tissue model, salbutamol is not only much less potent but also opens airways much more slowly (longer than 15 minutes). As a fast onset of action is key to the efficacy of salbutamol in relieving acute bronchospasm in asthma, it would not have been selected on the basis of this rodent model.

Using patient samples to select the right patient population for a drug target

It is increasingly recognised that not all patients will gain the same benefit from a particular treatment for a variety of reasons, not least of which is the expression of different disease pathways (or endotypes) in different patients. This is the basis of personalised, P4 or stratified medicine[4]. Under such circumstances, enriching a clinical trial population for patients who are most likely to respond best to treatment rather than treating all-comers increases the chance of success, particularly early in the clinical development programme in trials with fewer patients[5].

For example, preclinical studies in animal models suggested that the airways pro-inflammatory and remodelling protein interleukin-13 (IL-13) may be an important target for the treatment of asthma. As a consequence a number of therapeutic antibodies targeting IL-13 are in clinical development. To determine whether IL-13 is an important mediator in less well controlled asthma, researchers measured levels of IL-13 in airway secretions collected from patients with severe asthma. They found that only around 40% of patients had detectable levels of IL-13, suggesting that not all patients with severe asthma would benefit from a treatment targeting IL-13[5, 6]. Two Phase II clinical studies have been conducted in asthma with anti-IL-13 antibody therapeutics in which clinical responses were evaluated in a subset of the trial populations with detectable IL-13 in sputum samples or elevated levels of an IL-13 sensitive biomarker in blood[7, 8]. In both cases,

clinical response to treatment was better than in the unselected and heterogeneous trial population.

Another example in the respiratory field is development of mepolizumab, a therapeutic antibody targeting IL-5. IL-5 is a pro-inflammatory protein involved in the recruitment and activation of eosinophils, thought to be an important inflammatory cell type in asthma. Early trials with mepolizumab yielded disappointing results[9]. However, more recent trials, in which the study populations were enriched for patients with signs of eosinophilic inflammation, have shown mepolizumab to be an effective therapy in the right target population[10].

Synairgen's translational research platform

Synairgen's founders, Professors Stephen Holgate, Ratko Djukanovic and Donna Davies, were among the first academic groups to develop human cell and tissue models in the respiratory disease area[11]. They played an instrumental role in establishing the translational research platform at Synairgen because they had access to diseased patients, the facilities to obtain biological samples from their airways and use these to develop disease related models *in vitro* at the University of Southampton's School of Medicine. Taking advantage of this unique setting, over the last decade Synairgen has established and continues to add to a Biobank of blood, sputum, lung cells and tissue samples collected from clinically well-characterised subjects with asthma and COPD and controls. These samples, stored in accordance with the requirements of the Human Tissue Authority, have been used to create *in vitro* human disease models of allergen challenge, cigarette smoke exposure, oxidant damage and respiratory virus infection, factors which are associated with exacerbations of respiratory disease.

It was observations made in cell models such as these which revealed that cells lining the airways of asthmatics (epithelial cells) were more susceptible to infection with common respiratory viruses such as those causing the common cold on account of a deficient protective immune response mediated by interferon beta[12]. The fact that this deficiency could be repaired by addition of a small amount of exogenous interferon beta in the *in vitro* asthma and COPD models provided the basis for the development of inhaled interferon beta as a novel treatment for respiratory virus induced exacerbations of respiratory disease. It is noteworthy that such a deficiency in immune response would not have been identified in animal models of respiratory disease[12], although once the defective pathway has been identified, pathway-specific models can be generated in mice to recapitulate events in the human disease[13].

Identifying new development opportunities

Having validated its translational platform through the interferon beta programme, Synairgen now aims to use its unique models to screen potential in-licensing opportunities in the respiratory disease or respiratory viral areas where there remains substantial unmet clinical need in complex diseases. The Biobank and disease models have the potential to enable Synairgen to identify the most relevant novel drug targets and reposition existing drugs, aiming them at patient populations who are more likely to gain significant clinical benefit. Identification of the appropriate responder population based on well characterised biomarkers will greatly assist the drug development process in the clinic. Furthermore a more targeted intervention will direct precious healthcare expenditure to those patients more likely to benefit from therapy.

Professor Stephen Holgate CBE
Founder and Non-executive Director

Dr Phillip Monk
Chief Scientific Officer

19 March 2014

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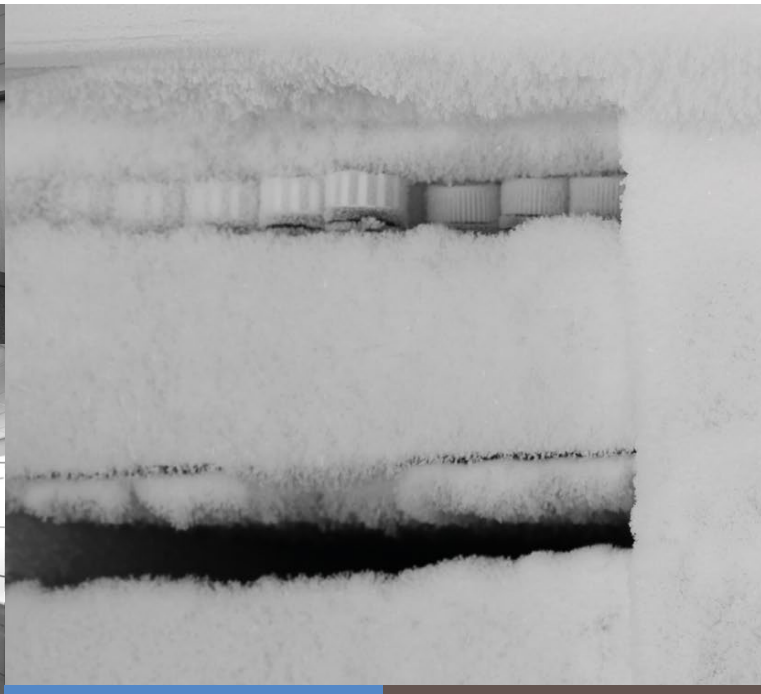
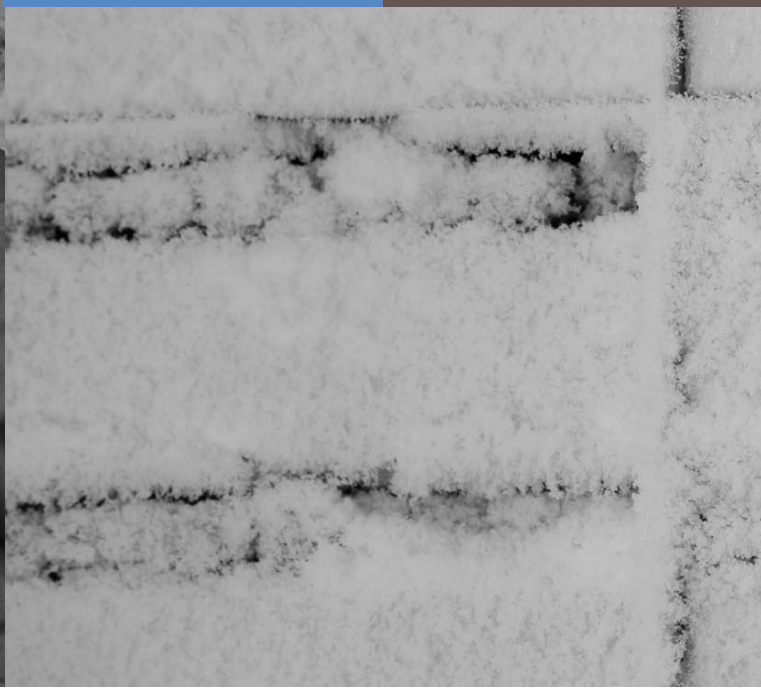
Synairgen is licensed by the Human Tissue Authority to store and use its Biobank of human tissue for its research



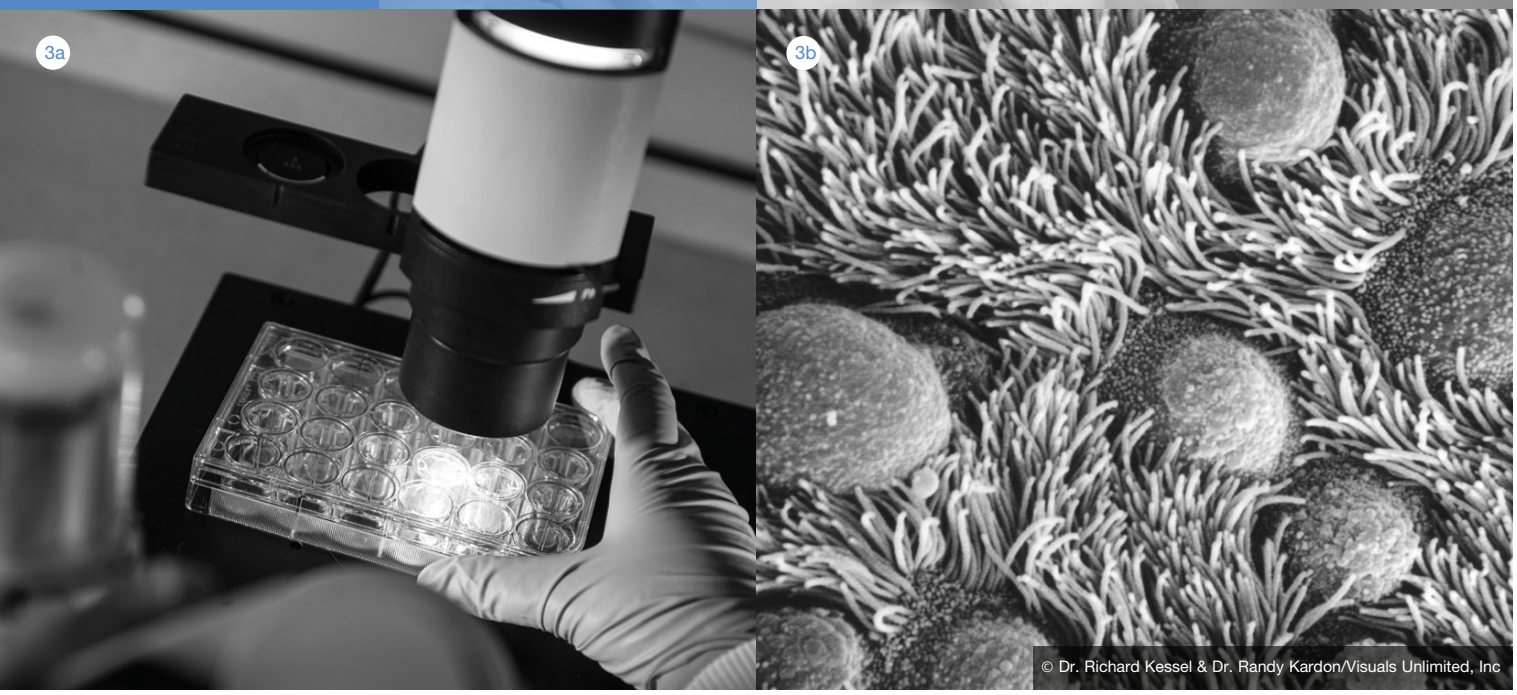


1 Biobank samples are obtained from volunteer patients attending specialist clinical research facilities at Southampton General Hospital

2 Synairgen's Biobank contains blood, sputum, lung cells and tissue samples collected from subjects with asthma and COPD and controls

3a Biobank samples are used to create *in vitro* human respiratory cell and tissue models to discover, develop and validate novel drug targets

3b Image of cultured epithelial cells grown at an air-liquid interface showing cilia and mucus-secreting cells (refer to page 4)



Directors

Simon Shaw

Non-executive Chairman

Simon Shaw joined Synairgen as executive Chairman on its inception in June 2003 and became non-executive Chairman in October of that year. He is Group Chief Financial Officer of Savills plc. He was Chief Financial Officer of Gyrus Group PLC from 2003 until its sale to Olympus Corporation in 2008, having previously been Chief Operating Officer of Profile Therapeutics plc between 1998 and 2003. Between 1991 and 1997 he was a corporate financier, latterly at Hambros Bank Limited. He is a chartered accountant.

Richard Marsden

Chief Executive Officer

Richard Marsden joined Synairgen in a consulting role as General Manager in November 2003, was appointed to the Board as Managing Director in June 2004 and appointed Chief Executive Officer in September 2009. Between 1998 and 2003 he worked as Projects Manager and Cystic Fibrosis Business Development Manager at Profile Therapeutics plc, where he managed the cystic fibrosis business and played a major role in the development of its proprietary pharmaceutical unit, Profile Pharma Limited. Prior to this, he worked for Zimmer Limited, Genentech (UK) Limited and Roche Products Limited.

Dr Phillip Monk

Chief Scientific Officer

Phillip Monk joined Synairgen in October 2006 as Head of Bioscience Development and was appointed to the Board as Chief Scientific Officer in September 2009. Phillip was previously Director of the Respiratory and Inflammation Biology group at Cambridge Antibody Technology ('CAT') and led the scientific development of CAT-354, an anti-IL-13 antibody being developed for the treatment of severe asthma. Prior to joining CAT, he worked at Bayer AG within the respiratory disease therapeutic area, focusing on the development of novel therapies for asthma, COPD and cystic fibrosis.

John Ward

Finance Director

John Ward joined Synairgen in October 2004 as Finance Director. From December 1999 to July 2004 he was Chief Financial Officer and Company Secretary of Profile Therapeutics plc and was appointed to the Profile Therapeutics board in March 2003. From 1996 to 1999 he was Finance Director of Rapid Deployment Group Limited, the UK holding company for the healthcare operations of Ventiv Health, Inc. Prior to joining Rapid Deployment he was a Director of Corporate Finance at Price Waterhouse. He is a chartered accountant.

Iain Buchanan

Non-executive Director

Iain Buchanan was appointed as a non-executive director in June 2010 and is currently Chief Executive Officer of NOXXON Pharma AG based in Berlin. Previously he was Chief Executive Officer of Novexel SA ('Novexel'), a specialty pharmaceutical company focused on novel anti-infectives, from its formation in 2004 until 2010, when it was sold to AstraZeneca. He has some 35 years' commercial experience in the pharmaceutical and biotech industries. He joined Novexel from Vertex Pharmaceuticals (Europe) Limited, where he was Managing Director. Prior to Vertex, Iain was the Regional Licensing Director of Cilag A.G. International, a division of Johnson & Johnson based in Switzerland, where he managed Cilag's international licensee business from 1987 to 1994.

Dr Bruce Campbell

Non-executive Director

Bruce Campbell joined Synairgen as a non-executive Director in April 2006. He has 40 years of drug development experience and has developed many drugs in a wide range of indications which are now on the market. He is currently a scientific advisor to IP Group plc and acts as a consultant to various companies including Proximagen Limited. Formerly he was Senior VP of International Development at Neurocrine Biosciences, Inc. ('Neurocrine'). Prior to joining Neurocrine he worked for 27 years at Servier (United Kingdom), latterly as Scientific Director. In addition, he has also been a director and European Chairman of the Drug Information Association and a member of the European ICH Safety Working Party. He is a visiting Professor in Pharmacology at King's College, London.

Paul Clegg

Non-executive Director

Paul Clegg was appointed as a non-executive director in September 2009. He is Chief Executive Officer of Accsys Technologies PLC, Chairman of Tricoya Technologies Ltd and a non-executive director of Peel Hunt LLP. Paul was previously Managing Director and Chief Executive Officer of Cowen International Limited and director of Cowen Asset Management Limited until June 2008. Paul has over twenty years' senior investment banking experience.

Prof. Stephen Holgate CBE

Non-executive Director

Stephen Holgate is a co-founder of Synairgen and was appointed a non-executive director in June 2003. After qualifying in Medicine at Charing Cross Hospital Medical School, London he has pursued an academic career leading to his appointment in 1987 to his current position as Medical Research Council Clinical Professor of Immunopharmacology at the University of Southampton. His research interests have been largely focused on the cellular and molecular mechanisms of asthma that has involved use of both epidemiological and genetic approaches. He has published over 950 papers in peer-reviewed literature. He is currently Member of the Science Europe Medical Committee; Chairman of the European Respiratory Society Scientific Council; Board Chair of National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs); Chairman of Defra's Hazardous Substances Advisory Committee; Member of the Department of Health Committee on the Medical Effects of Air Pollution; and a scientific board member or advisor to a number of companies, including Amgen, Takeda, Merck, and Novartis. In 2010, he was appointed by the Higher Education Funding Council for England to be the Chair of the Research Excellence Framework (REF2014) Main Panel A covering Medicine, Health and Life Sciences.

Synairgen's Founders and Scientific Advisors

Synairgen's Founders

Prof. Stephen Holgate CBE is MRC Clinical Professor of Immunopharmacology at the University of Southampton

Prof. Ratko Djukanovic is Professor of Medicine at the University of Southampton and Director of the Southampton NIHR Respiratory Biomedical Research Unit

Prof. Donna Davies is Professor of Respiratory Cell and Molecular Biology at the University of Southampton

Directors' Report

Other Scientific Advisors

Prof. Sebastian Johnston is Professor of Respiratory Medicine & Allergy at the National Heart and Lung Institute, Imperial College, London

Prof. Wisia Wedzicha is Professor of Respiratory Medicine at UCL Medical School and her work is centered on the causes and mechanisms of COPD exacerbations

The directors present their report and the audited financial statements for Synairgen plc (the 'Company') and its subsidiary (together the 'Group') for the year ended 31 December 2013.

There are a number of items required to be included in the Directors' Report, which are covered elsewhere in the annual report.

The following are covered in the Strategic Report:

- Principal activities
- Review of the business and future developments
- Key performance indicators
- Principal risks and uncertainties
- The use of financial instruments and financial risk management policies (also in note 16 to the financial statements)

Details of directors' remuneration and share options are given in the Directors' Remuneration Report.

Research and development

During the year ended 31 December 2013, the Group has invested £1,292,000 (2012: £1,508,000) in research and development activities and a review of this expenditure is included in the Strategic Report.

Dividends

The directors do not propose the payment of a dividend.

Substantial shareholdings

As at 19 March 2014, the Company had been advised of the following shareholders with interests of 3% or more in its ordinary share capital:

Name of shareholder	Number of ordinary shares	% of share capital
Lansdowne Partners Limited	15,023,111	19.2%
IP Group plc	8,562,894	10.9%
F&C Asset Management plc	6,552,505	8.4%
IP Venture Fund	5,706,390	7.3%
Mr MR Underwood	3,970,588	5.1%
Southampton Asset Management Limited	3,600,000	4.6%
Polar Capital LLP	2,360,115	3.0%

Directors

The directors of the Company during the year ended 31 December 2013 were:

Executive Directors:

Richard Marsden
Dr Phillip Monk
John Ward

Non-executive Directors:

Simon Shaw
Iain Buchanan
Dr Bruce Campbell
Paul Clegg
Prof. Stephen Holgate CBE

Directors' interests in ordinary shares

The directors, who held office at 31 December 2013, had the following interests in the ordinary shares of the Company:

	1 January and 31 December 2013 Number of shares
Richard Marsden	110,972
Dr Phillip Monk	28,592
John Ward	243,912
Simon Shaw (i)	1,408,879
Iain Buchanan	112,741
Dr Bruce Campbell	294,259
Paul Clegg (ii)	204,244
Prof. Stephen Holgate (iii)	858,360

(i) Simon Shaw's shareholding includes 40,299 shares held in his pension plan.
(ii) Paul Clegg's shareholding includes 180,149 shares held in his pension plan.
(iii) Prof. Stephen Holgate's shareholding includes 1,923 shares owned by his wife, Elizabeth Holgate.

Between 31 December 2013 and the date of this report there has been no change in the interests of directors in shares or share options as disclosed in this report.

Directors' and officers' liability insurance

Qualifying indemnity insurance cover has been arranged in respect of the personal liabilities which may be incurred by directors and officers of the Group during the course of their service with the Group. This insurance has been in place during the year and on the date of this report.

Post balance sheet events

On 10 March 2014, the Company raised £1,500,000 (gross) for working capital purposes by issuing 3,125,000 1p ordinary shares at a price of 48p per share.

Political donations

During the year ended 31 December 2013, the Group made no political donations (2012: £nil).

Auditors

All of the current directors have taken all the steps that they ought to have taken to make themselves aware of any information needed by the Company's auditors for the purposes of their audit and to establish that the auditors are aware of that information. The directors are not aware of any relevant audit information of which the auditors are unaware.

By order of the Board

John Ward
Company Secretary

19 March 2014

Corporate Governance

The Board is accountable to the Company's shareholders for good corporate governance and it is the objective of the Board to attain a high standard of corporate governance. As an AIM-quoted company, full compliance with The UK Corporate Governance Code (the 'Code') is not a formal obligation. The Company has not sought to comply with the full provisions of the Code, however it has sought to adopt the provisions that are appropriate to its size and organisation and establish frameworks for the achievement of this objective. This statement sets out the corporate governance procedures that are in place.

Board of Directors

On 31 December 2013 the Board of directors (the 'Board') consisted of a non-executive Chairman (Simon Shaw), three executive directors (Richard Marsden, Dr Phillip Monk and John Ward), and four non-executive directors (Iain Buchanan, Dr Bruce Campbell, Paul Clegg and Prof. Stephen Holgate). Brief details about the directors are given on pages 11 and 12. The responsibilities of the non-executive Chairman and the Chief Executive Officer are clearly divided. The non-executive directors bring relevant experience from different backgrounds and receive a fixed fee for their services and reimbursement of reasonable expenses incurred in attending meetings.

The Board retains full and effective control of the Group. This includes responsibility for determining the Group's strategy and for approving budgets and business plans to fulfil this strategy. The full Board ordinarily meets bi-monthly. It also meets on any other occasions it considers necessary. During the year ended 31 December 2013, the Board met nine times, with each member attending as follows:

Director	Number of meetings held whilst a Board member	Number of meetings attended
Simon Shaw	9	9
Richard Marsden	9	9
Dr Phillip Monk	9	8
John Ward	9	9
Iain Buchanan	9	8
Dr Bruce Campbell	9	7
Paul Clegg	9	9
Prof. Stephen Holgate	9	2

It is the duty of the Chairman to ensure that all directors are properly briefed on issues arising at Board meetings. Prior to each Board meeting, directors are sent an agenda and Board papers for each agenda item to be discussed. Additional information is provided when requested by the Board or individual directors.

The Company Secretary is responsible to the Board for ensuring that Board procedures are followed and that the applicable rules and regulations are complied with. All directors have access to the advice and services of the Company Secretary, and independent professional advice, if required, at the Company's expense. Removal of the Company Secretary would be a matter for the Board.

As appropriate, the Board has delegated certain responsibilities to Board committees.

Audit Committee

The Audit Committee currently comprises Simon Shaw (Chairman), Iain Buchanan and Dr Bruce Campbell. Whilst it is not normal in larger companies for the chairman of the Company to chair the Audit Committee, the Company considers it appropriate for Simon Shaw to be Chairman as he is considered to have the most significant, recent and relevant financial experience of the non-executive directors.

The committee has primary responsibility for ensuring that the financial performance of the Group is properly measured and reported on and it reviews the interim financial information and annual financial statements before they are submitted to the Board. The committee reviews accounting policies and material accounting judgements. The committee also reviews, and reports on, reports from the Group's auditors relating to the Group's accounting controls. It makes recommendations to the Board on the appointment of auditors and the audit fee. The committee monitors the scope, results and cost-effectiveness of the audit. It has unrestricted access to the Group's auditors. In certain circumstances it is permitted by the Board for the auditors to supply non-audit services (in the provision of tax advice, or on specific projects where they can add value).

The committee has approved and monitored the application of this policy in order to safeguard auditor objectivity and independence. The overall fees paid to the auditors are not deemed to be of such significance to them as to impair their independence. The Group does not have an internal audit function, but the Board considers that this is appropriate, given the size of the Group. The committee keeps this matter under review annually. During the year ended 31 December 2013, the committee met four times with each member attending as follows:

Director	Number of meetings held whilst a Committee member	Number of meetings attended
Simon Shaw	4	4
Iain Buchanan	1	1
Dr Bruce Campbell	4	3

Remuneration and Nomination Committee

The Remuneration and Nomination Committee currently comprises Paul Clegg (Chairman), Dr Bruce Campbell and Simon Shaw. The committee is responsible for making recommendations to the Board on remuneration policy for executive directors and the terms of their service contracts, with the aim of ensuring that their remuneration, including any share options and other awards, is based on their own performance and that of the Group generally. The committee administers the Long-Term Incentive Plan, the staff share option scheme and the Qualifying Non-Employee Option Scheme and approves grants under all three schemes. It also advises on the remuneration policy for the Group's employees. The committee is responsible for all senior appointments that are made within the Group. During the year ended 31 December 2013, the committee met four times and all meetings were attended by Paul Clegg, Dr Bruce Campbell and Simon Shaw.

Investor relations

The directors seek to build a mutual understanding of objectives between the Company and its shareholders by meetings with major institutional investors and analysts after the Company's preliminary announcement of its year-end results and its interim results. The Company also maintains investor relations pages on its website (www.synairgen.com) to increase the amount of information available to investors.

There is an opportunity at the Annual General Meeting for individual shareholders to question the Chairman, the Chairmen of the Audit and Remuneration and Nomination committees, and the executive directors. Notice of the meeting is sent to shareholders at least 21 clear days before the meeting. Shareholders are given the opportunity to vote on each separate issue. The Company counts all proxy votes and will indicate the level of proxies lodged on each resolution, after it has been dealt with by a show of hands. Details of the resolutions and explanations thereto are included with the notice.

Internal control

The directors are responsible for establishing and maintaining the Group's system of internal control and reviewing its effectiveness. The system of internal control is designed to manage, rather than eliminate, the risk of failure to achieve business objectives and can only provide reasonable but not absolute assurance against material misstatement or loss.

The main features of the internal control system are as follows:

- a control environment exists through the close management of the business by the executive directors. The Group has a defined organisational structure with delineated approval limits. Controls are implemented and monitored by personnel with the necessary qualifications and experience;
- a list of matters reserved for board approval;
- monthly management reporting and analysis of variances;
- financial risks for each major transaction are identified and evaluated by the Board; and
- standard financial controls operate to ensure that the assets of the Group are safeguarded and that proper accounting records are maintained.

By order of the Board

John Ward
Company Secretary

19 March 2014

Directors' Remuneration Report

This report is non-mandatory for AIM-quoted companies and has been produced on a voluntary basis. It includes and complies with the disclosure obligations of the AIM Rules.

Remuneration Committee

The Company's remuneration policy is the responsibility of the Remuneration and Nomination Committee (the 'Committee'), which was established in October 2004. The terms of reference of the Committee are outlined in the Corporate Governance Statement on page 16. The members of the Committee are Paul Clegg (Chairman), Simon Shaw and Dr Bruce Campbell.

The Committee, which is required to meet at least twice a year, met four times during the year ended 31 December 2013. The Chief Executive Officer and certain executives may be invited to attend meetings of the Committee to assist it with its deliberations, but no executive is present when his or her own remuneration is discussed.

During the year, the Committee has been advised on director remuneration by its retained independent remuneration adviser, FIT Remuneration Consultants LLP. No other advice has been provided to the Group by this firm during the year.

Remuneration policy

(i) Executive remuneration

The Committee has a duty to establish a remuneration policy which will enable it to attract and retain individuals of the highest calibre to run the Group. Its policy is to ensure that the executive remuneration packages of executive directors and the fee of the Chairman are appropriate given performance, scale of responsibility, experience, and consideration of the remuneration packages for similar executive positions in companies it considers to be comparable. Packages are structured to motivate executives to achieve the highest level of performance in line with the best interests of shareholders. A significant element of the total remuneration package, in the form of bonus and LTIP awards, is performance driven.

Executive remuneration currently comprises a base salary, an annual performance-related bonus, a pension contribution to the executive director's individual money purchase scheme (at 9% of base salary), family private health cover, permanent health and life assurance. Salaries and benefits were last reviewed in July 2012. As indicated in last year's report, salaries and benefits will now be reviewed annually during the first quarter of the year with any increases taking effect from 1 January, taking into account Group and individual performance, external benchmark information and internal relativities. The Company operates a discretionary bonus scheme for executive directors for delivery of exceptional performance against personal and corporate objectives, with the maximum bonus payable remaining at 200% of base salary. No bonuses were payable to executive directors in respect of the year ended 31 December 2013 and there were no pay rises awarded to executive directors in 2013. The 2014 review will be disclosed in next year's report.

Executive directors are also rewarded for improvements in the performance of the Group sustained over a period of years in the form of Long-Term Incentive Plan share awards granted on a discretionary basis by the Committee.

Directors' remuneration for the year ended 31 December 2013 is set out on pages 19 and 20 of this document.

(ii) Chairman and non-executive Director remuneration

The Chairman, Mr Buchanan and Mr Clegg receive a fixed fee of £25,000 per annum. Dr Campbell and Professor Holgate receive a fixed fee of £15,000 per annum. The fixed fee covers preparation for and attendance at meetings of the full Board and committees thereof. A fee of £5,000 per annum is also paid for chairing each of the audit and remuneration committees. The Chairman and the executive directors are responsible for setting the level of non-executive remuneration. These fees remain unchanged from 1 September 2009. The non-executive directors are also reimbursed for all reasonable expenses incurred in attending meetings.

(iii) Equity-based incentive schemes

The Committee strongly believes that equity-based incentive schemes increase the focus of employees in improving Group performance, whilst at the same time providing a strong incentive for retaining and attracting individuals of a high calibre.

Long-Term Incentive Plan ('LTIP')

The Synairgen Long-Term Incentive Plan, comprising conditional (performance-related) share awards (technically structured as nominal cost options pursuant to which participants must pay 1p per share on the exercise of their awards), was introduced in 2005 as the sole ongoing long-term incentive vehicle for executive Directors. Senior executives and other employees may be granted an award which will normally vest if demanding performance conditions are achieved over a three-year period and if the grantee remains an employee of the Group.

Grants under the LTIP in any financial year are capped at a maximum of 100% of base salary. In March 2013, Richard Marsden, Dr Phillip Monk and John Ward were granted awards over shares worth 100% of base salary. Executive directors are expected to retain no fewer than 50% of shares acquired upon vesting of awards under the LTIP, net of taxes, until such time as, in combination with any other shares the executives may have acquired, they hold shares with a value equivalent to 100% of base salary.

All awards will lapse at the end of the applicable performance period to the extent that the applicable performance criteria conditions have not been satisfied with no opportunity for retesting. In the event of a good leaver event or a change of control of the Company, the LTIP awards may vest early, but only to the extent that, in the opinion of the Committee, the performance conditions have been satisfied at that time. The awards will generally also be subject to a time pro-rated reduction to reflect the reduced period of time between the grant of the awards and the time of vesting although this reduction may not be applied in certain cases.

Performance conditions for the 2010, 2011 and 2013 LTIP awards

The performance conditions for all three awards were the same. The awards are subject to two conditions. Firstly, awards will only vest to the extent that the percentage increase in the total shareholder return ('TSR', being the return earned by a shareholder over the performance period in terms of change in the share price and assuming re-investment of any dividends in more shares at the

prevailing price on the relevant ex-dividend date) of the Company over the three year performance period is equal or greater than the percentage increase in the techMARK mediscience™ index over the same period as follows:

TSR growth over the performance period less percentage increase in the techMARK mediscience™ index over the same period	Vesting percentage of total number of shares subject to award
Less than 0%	0%
0%	25%
10%	50%
20%	100%
Performance between the steps	Pro-rata on a straight-line basis

Secondly, no award will vest unless the average annual growth in the TSR of the Company over the performance period is equal to or greater than RPI plus 2% or, for more than 75% of an award to vest, annual average TSR must exceed RPI by at least 5% rather than 2%.

Vesting of 2010 LTIP awards

In September 2013, the awards granted in 2010 vested at 49.48%. The TSR growth over the three year performance period amounted to 90.46% and the percentage increase in the techMARK mediscience index over the same period was 80.67%, resulting in an outperformance by 9.79%, thus resulting in a vesting percentage of 49.48% for the first performance condition. For the second performance condition, the TSR increase of 90.46% was in excess of the 17.80% (inflation plus 6%), resulting in the maintained vesting of 49.48% from the first performance condition.

Qualifying Non-Employee Option Scheme ('QNEOS')

On 12 June 2009 shareholders in General Meeting approved the adoption of the QNEOS. This plan is a discretionary share scheme which enables the Committee to grant market value share options to consultants and non-executive directors who, in the opinion of the Committee, make, or, in the case of new appointments, will make, a significant contribution to the Group and where the Committee considers it to be in the interests of shareholders to make such grants.

During the year under review no options were granted under the QNEOS.

Vesting of 2010 QNEOS award

In June 2013 the award made in June 2010 vested in full. The award of options was made to a non-executive director of the Company (Mr Buchanan) which was subject to a performance condition whereby if TSR during the three year period exceeded 30% then the award would vest in full. The actual TSR achieved was 66.17% and therefore the award vested in full.

(iv) Service contracts and letters of appointment

The executive directors have entered into service agreements which can be terminated on six months' notice by either party.

During the year, Richard Marsden continued to act as a non-executive director of Southampton Asset Management Limited but did not receive any fees with regards to this appointment. None of the other executive directors held non-executive directorships with other companies.

The Chairman and non-executive directors have entered into letters of appointment for an initial fixed period of twelve months, which renew automatically for a further twelve month period on the anniversary of commencement. The appointment can be terminated on three months' notice by either party.

Directors' interests in share options

The interests of Directors in share options over ordinary shares during the year were as follows:

Synairgen Long-Term Incentive Plan

Date of grant	At 1 January 2013	Granted during the year	Lapsed	At 31 December 2013	Exercise price	Earliest exercise date	Expiry date
Richard Marsden							
7 September 2009	605,000	–	–	605,000	1p	7 Sept 2012	6 Sept 2019
8 September 2010	498,969	–	252,080	246,889	1p	8 Sept 2013	7 Sept 2020
21 September 2011	538,063	–	–	538,063	1p	21 Sept 2014	20 Sept 2021
11 March 2013	–	245,732	–	245,732	1p	11 Mar 2016	10 Mar 2023
Dr Phillip Monk							
7 September 2009	414,625	–	–	414,625	1p	7 Sept 2012	6 Sept 2019
8 September 2010	371,134	–	187,497	183,637	1p	8 Sept 2013	7 Sept 2020
21 September 2011	400,212	–	–	400,212	1p	21 Sept 2014	20 Sept 2021
11 March 2013	–	182,776	–	182,776	1p	11 Mar 2016	10 Mar 2023
John Ward							
7 September 2009	550,000	–	–	550,000	1p	7 Sept 2012	6 Sept 2019
8 September 2010	453,608	–	229,163	224,445	1p	8 Sept 2013	7 Sept 2020
21 September 2011	489,148	–	–	489,148	1p	21 Sept 2014	20 Sept 2021
11 March 2013	–	223,393	–	223,393	1p	11 Mar 2016	10 Mar 2023

The options awarded in September 2011 and 2013 under the LTIP will only vest if the performance conditions outlined above are met. The exercise of the options awarded in September 2009 (which vested in 2012) and in September 2010 (which vested in 2013) is generally subject to the relevant option holder continuing to be an employee or director of a company in the same Group as the Company at the relevant time.

Directors' Remuneration Report (continued)

Other options granted on or before the IPO or under the Synairgen plc Staff Option Scheme

Date of grant	At 1 January and 31 December 2013	Exercise price	Earliest exercise date	Expiry date
Richard Marsden				
11 October 2004	280,000	10p	11 Oct 2004	10 Oct 2014
11 October 2004	140,000	10p	30 June 2005	10 Oct 2014
26 October 2004	140,000	130p	30 June 2006	25 Oct 2014
26 October 2004	140,000	130p	30 June 2007	25 Oct 2014
Dr Phillip Monk				
2 October 2006	50,000	85.5p	2 Oct 2009	1 Oct 2016
John Ward				
26 October 2004	140,000	130p	30 June 2005	25 Oct 2014
26 October 2004	140,000	130p	30 June 2006	25 Oct 2014

The vesting and exercise of these other options is generally subject to the relevant option holder continuing to be an employee or director of a company in the same Group as the Company at the relevant time. There are no further performance criteria.

Synairgen Qualifying Non-Employee Option Scheme

Date of grant	At 1 January and 31 December 2013	Exercise price	Earliest exercise date	Expiry date
Iain Buchanan				
28 June 2010	212,765	23.5p	28 Jun 2013	27 Jun 2020
Paul Clegg				
7 September 2009	250,000	20p	7 Sept 2012	6 Sept 2019

The exercise of the options awarded in September 2009 (which vested in 2012) and in June 2010 (which vested in 2013) is subject to the rules of the scheme.

There were no other options granted to directors or which were exercised or lapsed during the year.

The mid-market price of the Company's shares at 31 December 2013 was 54.5p. During the year then ended, the mid-market price ranged from 33.75p to 55.5p. On 19 March 2014 the closing price was 55.5p.

Audited information

The following section (Directors' remuneration) contains the disclosures required by Schedule 5 to the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008, forms part of the financial statements for the year ended 31 December 2013 and has been audited by the Company's auditor, BDO LLP.

Directors' remuneration

The aggregate remuneration received by directors who served during the years ended 31 December 2013 and 2012 was as follows:

		Year ended 31 December 2013					Year ended 31 December 2012		
£'000	Note	Salary/fee	Benefits	Total (excl. pension)	Pension	Total (incl. pension)	Total (excl. pension)	Pension	Total (incl. pension)
Executive Directors									
Richard Marsden	(i)	130	2	132	12	144	174	12	186
Dr Phillip Monk	(ii)	97	–	97	9	106	106	31	137
John Ward		118	2	120	11	131	159	11	170
Non-executive Directors									
Simon Shaw		30	–	30	–	30	30	–	30
Iain Buchanan		25	–	25	–	25	25	–	25
Dr Bruce Campbell	(iii)	15	–	15	–	15	15	–	15
Paul Clegg		30	–	30	–	30	30	–	30
Prof. Stephen Holgate	(iv)	15	–	15	–	15	15	–	15
Total		460	4	464	32	496	554	54	608

(i) Richard Marsden was the highest paid director during the years ended 31 December 2013 and 2012 and he did not exercise any share options during either year.

(ii) Dr Phillip Monk requested that £22,500 of his bonus entitlement for the year ended 31 December 2012 be paid in the form of an additional employer pension contribution.

(iii) £15,000 was paid to IP2IPO Limited for the services of Dr Bruce Campbell.

(iv) In addition to this fee for his services as a director, Prof. Holgate received consultancy fees amounting to £4,000 (2012: £11,000) as disclosed in note 19 to the financial statements.

(v) The total amount paid to third parties amounted to £15,000 (2012: £15,000).

In addition to the amounts shown above, the share-based payment charge for the period was:

	2013 £000	2012 £000
Richard Marsden	58	54
Dr Phillip Monk	43	40
John Ward	53	49
Iain Buchanan	2	4
Paul Clegg	–	2

Total share-based payment in respect of key management personnel amounted to £154,000 for the year ended 31 December 2013 (2012: £143,000).

By order of the Board

Paul Clegg
Chairman of the Remuneration and Nomination Committee

19 March 2014

Statement of Directors' responsibilities in respect of the Annual Report and the Financial Statements

The directors are responsible for preparing the strategic report, the annual report and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial period. Under that law the directors have elected to prepare the Group financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union and the Company financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law). Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Company and of the profit or loss of the Group for that period. The directors are also required to prepare financial statements in accordance with the rules of the London Stock Exchange for companies trading securities on the Alternative Investment Market.

In preparing these financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether they have been prepared in accordance with IFRSs as adopted by the European Union, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the financial statements comply with the requirements of the Companies Act 2006. They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Website publication

The directors are responsible for ensuring the annual report and financial statements are made available on a website. Financial statements are published on the Group's website in accordance with AIM rules for companies and legislation in the United Kingdom governing the preparation and dissemination of financial statements, which may vary from legislation in other jurisdictions. The maintenance and integrity of the Group's website is the responsibility of the directors. The directors' responsibility also extends to the ongoing integrity of the financial statements contained therein.

Going concern

The directors have prepared and reviewed financial forecasts. After due consideration of these forecasts and current cash resources, the directors consider that the Company and the Group have adequate financial resources to continue in operational existence for the foreseeable future (being a period of at least twelve months from the date of this report), and for this reason the financial statements have been prepared on a going concern basis.

By order of the Board

John Ward
Company Secretary

19 March 2014

Independent Auditor's Report to the members of Synairgen plc

We have audited the financial statements of Synairgen plc for the year ended 31 December 2013 which comprise the Consolidated Statement of Comprehensive Income, the Consolidated Statement of Changes in Equity, the Consolidated Statement of Financial Position, the Consolidated Statement of Cash Flows, the Parent Company Balance Sheet and the related notes. The financial reporting framework that has been applied in the preparation of the group financial statements is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union. The financial reporting framework that has been applied in preparation of the parent company financial statements is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Respective responsibilities of Directors and auditors

As explained more fully in the statement of directors' responsibilities, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

Scope of the audit of the financial statements

A description of the scope of an audit of financial statements is provided on the FRC's website at www.frc.org.uk/auditscopeukprivate.

Opinion on financial statements

In our opinion:

- the financial statements give a true and fair view of the state of the group's and the parent company's affairs as at 31 December 2013 and of the group's loss for the year then ended;
- the group financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union;
- the parent company's financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

Opinion on other matters prescribed by the Companies Act 2006

In our opinion the information given in the strategic report and the directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements.

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Paul Anthony (senior statutory auditor)

For and on behalf of

BDO LLP, statutory auditor

Southampton
United Kingdom

19 March 2014

BDO LLP is a limited liability partnership registered in England and Wales (with registered number OC305127)

Consolidated Statement of Comprehensive Income

for the year ended 31 December 2013

	Notes	Year ended 31 December 2013 £000	Year ended 31 December 2012 £000
Research and development expenditure		**(1,292)**	(1,508)
Other administrative expenses		**(986)**	(982)
Total administrative expenses		**(2,278)**	(2,490)
Loss from operations	4	**(2,278)**	(2,490)
Finance income	6	**11**	27
Loss before tax		**(2,267)**	(2,463)
Tax	7	**224**	213
Loss and total comprehensive income for the period attributable to equity holders of the parent		**(2,043)**	(2,250)
Loss per ordinary share			
Basic and diluted loss per share (pence)	8	**(2.72)p**	(3.12)p

Consolidated Statement of Changes in Equity

for the year ended 31 December 2013

	Share capital £000	Share premium £000	Merger reserve £000	Retained deficit £000	Total £000
Note	18a	18b	18c	18d	
At 1 January 2012	696	17,128	483	(15,184)	3,123
Issuance of ordinary shares	56	2,445	–	–	2,501
Transaction costs in respect of share issues	–	(151)	–	–	(151)
Recognition of share-based payments	–	–	–	193	193
Total comprehensive income for the year	–	–	–	(2,250)	(2,250)
At 31 December 2012	752	19,422	483	(17,241)	3,416
Issuance of ordinary shares	–	–	–	–	–
Recognition of share-based payments	–	–	–	206	206
Total comprehensive income for the year	–	–	–	(2,043)	(2,043)
At 31 December 2013	**752**	**19,422**	**483**	**(19,078)**	**1,579**

Consolidated Statement of Financial Position

as at 31 December 2013

	Notes	31 December 2013 £000	31 December 2012 £000
Assets			
Non-current assets			
Intangible assets	9	**297**	332
Property, plant and equipment	10	**15**	27
		312	359
Current assets			
Inventories	11	**199**	72
Current tax receivable		**190**	210
Trade and other receivables	12	**43**	79
Other financial assets – bank deposits	13	**458**	1,431
Cash and cash equivalents	14	**834**	1,656
		1,724	3,448
Total assets		**2,036**	3,807
Liabilities			
Current liabilities			
Trade and other payables	15	**(457)**	(391)
Total liabilities		**(457)**	(391)
Total net assets		**1,579**	3,416
Equity			
Capital and reserves attributable to equity holders of the parent			
Share capital	17	**752**	752
Share premium	17	**19,422**	19,422
Merger reserve	18	**483**	483
Retained deficit	18	**(19,078)**	(17,241)
Total equity		**1,579**	3,416

The financial statements on pages 23 to 36 were approved and authorised for issue by the Board of directors on 19 March 2014 and signed on its behalf by:

Richard Marsden
Chief Executive Officer

John Ward
Finance Director

Consolidated Statement of Cash Flows

for the year ended 31 December 2013

	Year ended 31 December 2013 £000	Year ended 31 December 2012 £000
Cash flows from operating activities		
Loss before tax	**(2,267)**	(2,463)
Adjustments for:		
Finance income	**(11)**	(27)
Depreciation	**15**	30
Amortisation	**47**	46
Loss on derecognised intangible asset	**4**	5
Share-based payment charge	**206**	193
Cash flows from operations before changes in working capital	**(2,006)**	(2,216)
(Increase)/Decrease in inventories	**(127)**	13
Decrease in trade and other receivables	**32**	30
Increase/(Decrease) in trade and other payables	**66**	(572)
Cash used in operations	**(2,035)**	(2,745)
Tax credit received	**244**	254
Net cash used in operating activities	**(1,791)**	(2,491)
Cash flows from investing activities		
Interest received	**15**	30
Purchase of property, plant and equipment	**(3)**	(9)
Purchase of intangible assets	**(16)**	(144)
Decrease in other financial assets	**973**	1,024
Net cash generated from investing activities	**969**	901
Cash flows from financing activities		
Proceeds from issuance of ordinary shares	**–**	2,501
Transaction costs in respect of share issues	**–**	(151)
Net cash generated from financing activities	**–**	2,350
(Decrease)/Increase in cash and cash equivalents	**(822)**	760
Cash and cash equivalents at beginning of the period	**1,656**	896
Cash and cash equivalents at end of the period	**834**	1,656

1. Accounting policies

Basis of preparation

The Group financial statements have been prepared in accordance with International Financial Reporting Standards, International Accounting Standards and Interpretations (collectively 'IFRSs') as adopted by the European Union ('Adopted IFRSs') and with those parts of the Companies Act 2006 applicable to companies preparing their financial statements under IFRSs.

Changes in accounting policy

The accounting policies adopted are consistent with those of the previous financial year. The following new standards have been adopted and are effective for the current year:

IFRS 1 (revised)	Repeat Application, Borrowing costs
IFRS 7 (revised)	Enhancing disclosures about offsetting of financial assets and financial liabilities
IFRS 10	Consolidated Financial Statements
IFRS 10 (revised)	Transitional guidance
IFRS 11	Joint Arrangements
IFRS 11 (revised)	Transitional guidance
IFRS 12	Disclosure of Interests in Other Entities
IFRS 12 (revised)	Transitional guidance
IFRS 13	Fair Value Measurement
IAS 1 (revised)	Revised the method how other comprehensive income is presented and comparative information
IAS 19 (revised)	Post Employment Benefits and Termination Benefits projects
IAS 28	Investments in Associates
IAS 32 (revised)	Tax effect of equity distributions
IAS 34 (revised)	Interim reporting of segment assets

The adoption of these pronouncements has not impacted the classification or measurement of the Group's assets and liabilities, nor has it resulted in any additional disclosure.

New standards and interpretations not applied

IASB and IFRIC have issued the following relevant standards and interpretations with an effective date after the date of these financial statements:

Standard or interpretation	Title	Effective from
IFRS 2	Amendments for Annual Improvements to IFRSs 2010-2012 Cycle (definition of vesting condition)	1 July 2014
IFRS 3	Amendments for Annual Improvements to IFRSs 2010-2012 Cycle (contingent consideration)	1 July 2014
IFRS 3	Amendments for Annual Improvements to IFRSs 2011-2013 Cycle (scope exception for joint ventures)	1 July 2014
IFRS 9	Deferral of mandatory effective date of IFRS 9 and amendments to transition disclosures	1 January 2015
IFRS 9	Financial Instruments (Hedge Accounting and amendments to IFRS 9, IFRS 7 and IAS 39) issues, implementing additional disclosures (and consequential amendments) resulting from the introduction of the hedge accounting chapter in IFRS 9	Applies when IFRS 9 is applied
IFRS 9	Classification and measurement of financial assets	Effective date to be confirmed
IFRS 10	Amendments for Investment Entities	1 January 2014
IFRS 12	Amendments for Investment Entities	1 January 2014
IFRS 13	Amendments for Annual Improvements to IFRSs 2010-2012 Cycle (short-term receivables and payables)	Basis conclusion only
IFRS 13	Amendments for Annual Improvements to IFRSs 2011-2013 Cycle (scope of portfolio exception in paragraph 52)	1 July 2014
IFRS 14	IFRS 14 Regulatory Deferral Accounts issued	1 January 2016
IAS 1	Amendments for Annual Improvements 2009-2011 Cycle (comparative information)	1 July 2013
IAS 16	Amendments for Annual Improvements to IFRSs 2010-2012 Cycle (proportionate restatement of accumulated depreciation under the revaluation method)	1 July 2014
IAS 24	Amendments for Annual Improvements to IFRSs 2010-2012 Cycle (entities providing key management personnel services)	1 July 2014
IAS 27	Amendments for Investment Entities	1 January 2014
IAS 36	Amendments for Recoverable Amount Disclosures for Non-Financial Assets	1 January 2014
IAS 38	Amendments for Annual Improvements to IFRSs 2010-2012 Cycle (proportionate restatement of accumulated depreciation under the revaluation method)	1 July 2014
IAS 40	Amendments for Annual Improvements to IFRSs 2011-2013 Cycle (interrelationship between IFRS 3 and IAS 40)	1 July 2014

1. Accounting policies (continued)

The Directors do not anticipate that the adoption of the remaining standards and interpretations will have a material impact on the Group's financial statements in the period of initial application.

The effective dates stated here are those given in the original IASB/IFRIC standards and interpretations. As the Group prepares its financial statements in accordance with IFRS as adopted by the European Union, the application of new standards and interpretations will be subject to their having been endorsed for use in the EU via the EU Endorsement mechanism. In the majority of cases this will result in an effective date consistent with that given in the original standard or interpretation but the need for endorsement restricts the Group's discretion to early adopt standards.

The Group financial statements are presented in Sterling.

Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company made up to the reporting date. Control is achieved where the Company has the power to govern the financial and operating policies of an investee entity so as to obtain benefits from its activities. All intra-group transactions, balances, income and expenses are eliminated on consolidation. Business combinations that took place prior to 1 July 2006, the date of transition to IFRS, have not been restated as permitted by IFRS 1 "First-time Adoption of International Financial Reporting". The consolidated financial statements have been prepared using the merger method of accounting.

Research and development

All ongoing research expenditure is currently expensed in the period in which it is incurred. Due to the regulatory and other uncertainties inherent in the development of the Group's products, the criteria for development costs to be recognised as an asset, as set out in IAS 38 "Intangible Assets", are not met until a product has been submitted for regulatory approval and it is probable that future economic benefit will flow to the Group. The Group currently has no such qualifying expenditure.

Employee benefits

All employee benefit costs, notably salaries, holiday pay, bonuses and contributions to Group stakeholder or personal defined contribution pension schemes are charged to the consolidated statement of comprehensive income on an accruals basis.

Share-based payments

Option awards and awards made under the Group's Long-Term Incentive Plan ('LTIP') granted after 7 November 2002 which had not vested by 1 July 2006 are fair valued and charged to the consolidated statement of comprehensive income over the period from grant to vesting. The Group has fair-valued option and LTIP awards using appropriate share valuation models. Options granted to non-employees are measured at the fair value of the goods or services received, except where the fair value cannot be estimated reliably, in which case they are measured at the fair value of the equity instrument granted. At each reporting date, the Group revises its estimate of the number of options that are expected to become exercisable. The credit for any charge is taken to equity.

Intangible assets

Intangible assets are stated at cost less any accumulated amortisation and any accumulated impairment losses. Patent and licence costs are amortised over ten years on a straight-line basis and the amortisation cost is charged to research and development expenditure in the consolidated statement of comprehensive income.

Property, plant and equipment

Property, plant and equipment are stated at cost less any accumulated depreciation and any accumulated impairment losses. Depreciation is provided on a straight-line basis at rates calculated to write off the cost of property, plant and equipment, less their estimated residual value over their expected useful lives, which are as follows:

Computer equipment:	3 years
Laboratory and clinical equipment:	5 years

The carrying values of property, plant and equipment are reviewed for impairment if events or changes in circumstances indicate that the carrying value may not be recoverable.

Inventories

Inventories are stated at the lower of cost and net realisable value.

Financial instruments

Financial assets and financial liabilities are recognised on the Group's consolidated statement of financial position when the Group becomes a party to the contractual provisions of the instrument.

1. Accounting policies (continued)

Financial assets

The Group classifies its financial assets as loans and receivables. These assets are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are initially recognised at fair value plus transaction costs that are directly attributable to their acquisition or issue, and are subsequently carried at amortised cost using the effective interest rate method, less provision for impairment. Impairment provisions are recognised when there is objective evidence (such as significant financial difficulties on the part of the counterparty or default or significant delay in payment) that the Group will be unable to collect all of the amounts due under the terms receivable; the amount of such a provision being the difference between the net carrying amount and the present value of the future expected cash flows associated with the impaired receivable.

The Group's loans and receivables comprise trade and other receivables, other financial assets and cash and cash equivalents in the consolidated statement of financial position. Other financial assets comprise short-term deposits not meeting the IAS 7 definition of a cash equivalent. Cash and cash equivalents includes cash in hand, deposits held at call with banks and other short-term bank deposits with a maturity period of three months or less from the date of initial deposit.

Financial liabilities

The Group classifies its financial liabilities as financial liabilities held at amortised cost. Trade payables and obligations under finance leases are initially recognised at fair value and subsequently carried at amortised cost using the effective interest rate method.

Leased assets

Where substantially all of the risks and rewards incidental to ownership are not transferred to the Group (an 'operating lease'), the total rentals payable under the lease are charged to the consolidated statement of comprehensive income on a straight-line basis over the lease term.

Taxation

Income tax is recognised or provided at amounts expected to be recovered or to be paid using the tax rates and tax laws that have been enacted or substantively enacted at the reporting date. Research and development tax credits are included as an income tax credit under current assets.

Deferred tax balances are recognised in respect of all temporary differences that have originated but not reversed by the reporting date except for differences arising on:

- investments in subsidiaries where the Group is able to control the timing of the reversal of the difference and it is probable that the difference could not reverse in the foreseeable future; and
- the initial recognition of an asset or liability in a transaction which is not a business combination and at the time of the transaction affects neither accounting or taxable profit.

The amount of the asset or liability is determined using tax rates that have been enacted or substantively enacted by the reporting date and are expected to apply when the deferred tax liabilities/(assets) are settled/(recovered).

Recognition of deferred tax assets is restricted to those instances where it is probable that a taxable profit will be available against which the temporary difference can be utilised. Deferred tax balances are not discounted.

Foreign currencies

Transactions entered into by Group entities in a currency other than the currency of the primary economic environment in which they operate (their "functional currency") are recorded at the rates ruling when the transactions occur. Foreign currency monetary assets and liabilities are translated at the rates ruling at the reporting date. Exchange differences arising on the retranslation of unsettled monetary assets and liabilities are recognised immediately in the consolidated statement of comprehensive income.

The functional currency of all entities in the Group is Sterling.

2. Critical accounting estimates and judgements

Critical accounting estimates, assumptions and judgements are continually evaluated by management based on available information and experience. As the use of estimates is inherent in financial reporting, actual results could differ from these estimates.

Share-based payment

The critical accounting estimates, assumptions and judgements underpinning the valuation of the option and LTIP awards are disclosed in note 17.

3. Segmental analysis

The Group operates in one area of activity, namely drug discovery and development. All assets of the Group are located within the United Kingdom and all losses were generated in that territory.

4. Loss from operations

The loss from operations has been arrived at after charging:

	2013 £000	2012 £000
Depreciation of property, plant and equipment	**15**	30
Amortisation of intangible assets	**47**	46
Loss on derecognised intangible asset	**4**	5
Research and development expenditure	**1,292**	1,508
Operating lease rentals payable		
Land and buildings	**81**	79
Other operating lease rentals	**93**	93

The fees of the Group's auditor, BDO LLP, for services provided are analysed below:

	2013 £000	2012 £000
Fees payable to the Company's auditor for the audit of the Company's financial statements	**10**	10
Fees payable to the Company's auditor for other services:		
The audit of the Company's subsidiary, pursuant to legislation	**10**	10
Audit-related assurance services	**5**	5
Tax compliance services	**6**	5
Tax advisory services	**7**	3
Total fees	**38**	33

5. Employee benefit expense

The average monthly number of employees (including executive directors) was:

	2013	2012
Research	**13**	15
Administration	**3**	3
	16	18

Their aggregate remuneration comprised:

	2013 £000	2012 £000
Wages and salaries	**727**	874
Social security costs	**83**	104
Pension costs – defined contribution plans	**51**	72
Total cash-settled remuneration	**861**	1,050
Accrued holiday pay	**3**	(2)
Share-based payment	**204**	182
Total remuneration	**1,068**	1,230

For the purpose of presentation in the Consolidated Statement of Comprehensive Income, remuneration costs of £624,000 (2012: £705,000) are included in research and development expenditure and £444,000 (2012: £525,000) are included in other administrative expenses.

Key management compensation

The directors represent the key management personnel and details of their remuneration are given in the Directors' Remuneration Report.

In respect of directors' remuneration, the disclosures required by Schedule 5 to the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 are included in the detailed disclosures in the audited section of the Remuneration Report on pages 19 and 20, which are ascribed as forming part of these financial statements.

6. Finance income

For the years ended 31 December 2013 and 2012 Finance income represents bank interest receivable.

7. Taxation

Current tax

	2013 £000	2012 £000
UK corporation tax credit on loss for the year	**(190)**	(210)
Adjustment in respect of prior years	**(34)**	(3)
Total income tax credit	**(224)**	(213)

The tax assessed on the loss on ordinary activities for the year is different to the standard rate of corporation tax in the UK of 23.25% (2012: 24.5%). The differences are reconciled below:

	2013 £000	2012 £000
Loss on ordinary activities before tax	**(2,267)**	(2,463)
Loss on ordinary activities before tax multiplied by the standard rate of corporation tax in the UK	**(527)**	(603)
Effects of:		
Expenses not deductible for tax purposes	**48**	48
Enhanced research & development relief	**(235)**	(231)
Variable rates on tax losses surrendered for research & development tax credit	**212**	238
Movement in unrecognised losses and temporary differences	**312**	338
Overprovision in respect of previous years	**(34)**	(3)
Total tax credit for the current year	**(224)**	(213)

Deferred taxation

Changes in tax rates and factors affecting the future tax charge

Finance Act 2013 includes provision for the main rate of corporation tax to reduce from 23% to 21% on 1 April 2014, and to 20% on 1 April 2015. This will reduce the Company's future tax charge accordingly. The rate changes were substantially enacted on 17 July 2013. Accordingly, deferred tax balances have been recognised at 20%, being the rate of corporation tax expected to be in force at the time these timing differences are expected to reverse.

Recognised deferred taxation	2013 £000	2012 £000
Accelerated capital allowances	**1**	4
Other temporary differences	**(1)**	(4)
Charge for the year	**–**	–

Unrecognised deferred taxation

At 31 December 2013 the Group has trading losses carried forward which are available for offset against future profits of the Group amounting to £10,676,000 (2012: £9,624,000) and non-trading losses of £1,084,000 (2012: £861,000). At 31 December 2013 the Group has an unrecognised deferred tax asset in respect of these losses of £2,352,000 (2012: £2,412,000). The full utilisation of these losses in the foreseeable future is uncertain and no deferred tax asset has therefore been recognised.

In addition to the deferred tax asset on losses, the Group has a potential future tax deduction on share options of £2,774,000 (2012: £1,861,000) and a deferred tax asset of £555,000 (2012: £428,000) thereon. The additional tax deduction will crystallise at the point the options are exercised. As the utilisation of this additional deduction against taxable profits in the Group is uncertain, no deferred tax asset has been recognised in respect of the future tax deduction on share options.

The movement on the unrecognised deferred tax asset comprises the following:

	2013 £000	2012 £000
Unrecognised deferred tax asset at the start of the year	**(2,840)**	(2,265)
Movement in year	**(67)**	(575)
Unrecognised deferred tax asset at the year-end	**(2,907)**	(2,840)

8. Loss per ordinary share

	2013 £000	2012 £000
Loss attributable to equity holders of the Company (£000)	**(2,043)**	(2,250)
Weighted average number of ordinary shares in issue	**75,186,742**	72,036,917

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 earnings per share. This is because the exercise of share options would have the effect of reducing the loss per ordinary share and is therefore not dilutive under the terms of IAS 33. At 31 December 2013, there were 7,393,272 options outstanding (2012: 7,511,635 options outstanding) as detailed in note 17.

9. Intangible assets

	Patent and licence costs £000
Cost	
At 1 January 2012	345
Additions	144
Derecognised assets	(5)
At 31 December 2012	484
Additions	16
Derecognised assets	(23)
At 31 December 2013	**477**
Amortisation	
At 1 January 2012	106
Derecognised assets	–
Charge for the year	46
At 31 December 2012	152
Derecognised assets	(19)
Charge for the year	47
At 31 December 2013	**180**
Net book amount	
At 31 December 2013	**297**
At 31 December 2012	332
At 1 January 2012	239

At 31 December 2013 £297,000 (2012: £332,000) of the net book amount relates to interferon beta and lambda patent and licence costs, which has a remaining average amortisation period of 6 years (2012: 7 years).

10. Property, plant and equipment

	Computer equipment £000	Laboratory and clinical equipment £000	Total £000
Cost			
At 1 January 2012	83	173	256
Additions	9	–	9
Derecognised assets	(50)	(41)	(91)
At 31 December 2012	42	132	174
Additions	2	1	3
At 31 December 2013	**44**	**133**	**177**
Depreciation			
At 1 January 2012	74	134	208
Derecognised assets	(50)	(41)	(91)
Charge for the year	6	24	30
At 31 December 2012	30	117	147
Charge for the year	6	9	15
At 31 December 2013	**36**	**126**	**162**
Net book value			
At 31 December 2013	**8**	**7**	**15**
At 31 December 2012	12	15	27
At 1 January 2012	9	39	48

At 31 December 2013 the Group had no capital commitments (2012: nil).

11. Inventories

	2013 £000	2012 £000
Raw materials	**199**	72

Raw materials comprise the Group's stock of interferon beta and its Biobank.

12. Trade and other receivables

	2013 £000	2012 £000
Amounts receivable within one year:		
Other tax and social security	**6**	22
Prepayments and accrued income	**37**	57
	43	79

13. Other financial assets – bank deposits

	2013 £000	2012 £000
Amounts receivable within one year:		
Sterling fixed rate deposits of greater than three months' maturity at inception	**458**	1,431

14. Cash and cash equivalents

	2013 £000	2012 £000
Cash available on demand	**834**	1,656

15. Trade and other payables

	2013 £000	2012 £000
Trade payables	**20**	97
Social security and other taxes	**25**	30
Accrued expenses and deferred income	**412**	264
	457	391

16. Financial instruments

An explanation of the Group's objectives, policies and strategies for financial instruments and analysis of the capital structure and capital funding of the Group can be found on page 5 in the Financial Review.

	Notes	2013 Book value £000	2013 Fair value £000	2012 Book value £000	2012 Fair value £000
Financial assets					
Loans and receivables					
Trade and other receivables	(i)	**6**	**6**	29	29
Other financial assets (less than one year)		**458**	**458**	1,431	1,431
Cash and cash equivalents (less than one year)		**834**	**834**	1,656	1,656
Total		**1,298**	**1,298**	3,116	3,116
Financial liabilities					
Other financial liabilities					
Trade and other payables (less than one year)	(ii)	**417**	**417**	361	361

(i) Trade and other receivables shown above excludes prepayments, which are not a contractual obligation to receive cash, amounting to £37,000 (2012: £50,000).

(ii) Trade and other payables shown above excludes amounts due in respect of social security and other taxes and deferred income, which are not a contractual obligation to pay cash, amounting to £40,000 (2012: £30,000).

The objective of holding financial instruments is to have access to finance for the Group's operations and to manage related risks. The main risks arising from holding these instruments are interest rate risk, liquidity risk, and credit risk.

16. Financial instruments (continued)

Interest rate risk

Interest rate risk profile of financial assets, excluding short-term debtors:

	2013 Floating-rate financial assets £000	2012 Floating-rate financial assets £000
Euro	–	83
Sterling	**1,292**	3,004
Total	**1,292**	3,087

Floating-rate financial assets comprise cash on deposit and cash at bank. There is no difference between the carrying amount and the fair value of the financial assets.

Short-term deposits are placed with banks for periods of up to twelve months and are categorised as floating-rate financial assets. Contracts in place at 31 December 2013 had a weighted average period to maturity of 31 days and a weighted average annualised rate of interest of 0.52% (2012: 48 days, 1.09%).

Sensitivity analysis

It is estimated that a decrease of quarter of one percentage point in interest rates would have increased the Group's loss before taxation by approximately £5,000 (2012: £8,000).

Liquidity risk

The Group's policy is to maintain adequate cash resources to meet liabilities as they fall due. All Group payable balances as at 31 December 2013 and 31 December 2012 fall due for payment within one year. Cash balances are placed on deposit for varying periods with reputable banking institutions to ensure there is limited risk of capital loss. The Group does not maintain an overdraft facility.

Credit risk

The Group's credit risk is attributable to its banking deposits. The Group places its deposits with reputable financial institutions to minimise credit risk.

17. Share capital and premium

	Note	Number of shares	Ordinary shares of 1p each £000	Share premium £000	Total £000
At 1 January 2012		69,560,064	696	17,128	17,824
Issuance of ordinary shares	(i), (ii)	5,624,272	56	2,445	2,501
Costs of issuance of shares		–	–	(151)	(151)
At 31 December 2012		75,184,336	752	19,422	20,174
Issuance of ordinary shares	(iii)	11,555	–	–	–
At 31 December 2013		**75,195,891**	**752**	**19,422**	**20,174**

(i) 5,555,556 ordinary shares of 1p were issued on 23 July 2012 at a premium of 44p per share to finance the Company's ongoing interferon beta programme and to provide working capital for the Company. Funds raised net of expenses amounted to £2,349,000.

(ii) 68,716 ordinary shares of 1p were issued on 28 September 2012 at par following the exercise of share options under the Company's long term incentive plan (LTIP).

(iii) 11,555 ordinary shares of 1p were issued on 17 October 2013 at par following the exercise of share options under the Company's long term incentive plan (LTIP).

The total authorised number of ordinary shares is 125 million shares (2012: 125 million shares) with a par value of 1p per share (2012: 1p per share). All issued shares are fully paid.

17. Share capital and premium (continued)

Options

At 31 December 2013 there were options outstanding over 7,393,272 un-issued ordinary shares, equivalent to 9.8% of the issued share capital, as follows:

Date of grant	Number of shares	Exercise price	Earliest exercise date	Latest exercise date
Approved EMI scheme				
26 October 2004	64,515	130p	30 June 2005	25 October 2014
26 October 2004	64,515	130p	30 June 2006	25 October 2014
26 October 2004	42,000	130p	26 October 2007	25 October 2014
12 May 2005	14,000	136.5p	12 May 2008	11 May 2015
2 October 2006	109,023	85.5p	2 October 2009	1 October 2016
29 October 2007	17,792	61.5p	29 October 2010	28 October 2017
Unapproved schemes				
11 October 2004	280,000	10p	11 October 2004	10 October 2014
11 October 2004	140,000	10p	30 June 2005	10 October 2014
26 October 2004	75,485	130p	30 June 2005	25 October 2014
26 October 2004	215,485	130p	30 June 2006	25 October 2014
26 October 2004	140,000	130p	30 June 2007	25 October 2014
7 September 2009 (LTIP)	1,855,431	1p	7 September 2012	6 September 2019
7 September 2009 (QNEOS)	250,000	20p	7 September 2012	6 September 2019
16 October 2009 (QNEOS)	250,000	20p	16 October 2012	15 October 2019
28 June 2010 (QNEOS)	212,765	23.5p	28 June 2013	27 June 2020
8 September 2010 (LTIP)	877,797	1p	8 September 2013	7 September 2020
21 September 2011 (LTIP)	1,896,384	1p	21 September 2014	20 September 2021
11 March 2013 (LTIP)	888,080	1p	11 March 2016	10 March 2023
	7,393,272			

The Group has no legal or constructive obligation to repurchase or settle the options in cash. The movement in the number of share options is set out below:

	2013 Number	2013 Weighted average exercise price	2012 Number	2012 Weighted average exercise price
Outstanding at start of year	**7,511,635**	**15.6p**	7,911,787	15.2p
Granted during the year	**906,343**	**1.0p**	–	n/a
Exercised during the year	**(11,555)**	**1.0p**	(68,716)	1.0p
Lapsed during the year	**(1,013,151)**	**2.6p**	(331,436)	9.6p
Number of outstanding options at year-end	**7,393,272**	**15.6p**	7,511,635	15.6p

At 31 December 2013, 4,608,808 share options were capable of being exercised, with exercise prices ranging from 1p to 136.5p (2012: 3,540,438, with exercise prices ranging from 1p to 136.5p). The options outstanding at 31 December 2013 had a weighted average remaining contractual life of 6.0 years (2012: 6.7 years). Vesting conditions are disclosed in the Directors' Remuneration Report.

17. Share capital and premium (continued)

The Group uses a number of share-based incentive schemes as detailed above. The fair value per award granted and the assumptions used in the calculations for the 6,553,272 options which had not vested at 30 June 2006 (being the date after which IFRS 2 has been applied) are as follows:

Date of grant	Type of award	Number of shares	Exercise price (p)	Share price at date of grant (p)	Fair value per option (p)	Award life (years)	Risk free rate	Expected volatility rate	Performance conditions
26 Oct 2004	Unapproved	140,000	130p	155p	57.7p	5	4.59%	20%	None
26 Oct 2004	EMI	42,000	130p	155p	57.7p	5	4.59%	20%	None
12 May 2005	EMI	14,000	136.5p	135.5p	36.9p	5	4.35%	20%	None
2 Oct 2006	EMI	109,023	85.5p	85.5p	24.4p	5	4.75%	20%	None
29 Oct 2007	EMI	17,792	61.5p	61.5p	17.8p	5	4.95%	20%	None
7 Sept 2009	LTIP	1,855,431	1p	18.5p	7.1p	3	2.09%	30%	Market
7 Sept 2009	QNEOS	250,000	20p	18.5p	4.0p	5	2.67%	30%	Market
16 Oct 2009	QNEOS	250,000	20p	20p	6.3p	5	2.65%	30%	Non-market
28 Jun 2010	QNEOS	212,765	23.5p	23.5p	5.6p	5	2.09%	30%	Market
8 Sept 2010	LTIP	877,797	1p	24.25p	12.1p	3	0.92%	40%	Market
21 Sept 2011	LTIP	1,896,384	1p	22.5p	13.4p	3	0.79%	56%	Market
11 Mar 2013	LTIP	888,080	1p	53p	30.9p	3	0.36%	44%	Market
		6,553,272							

In accordance with IFRS 2, the Company has applied IFRS 2 to all share-based payments granted after 7 November 2002 which had not vested by 1 July 2006. The following comments apply to those options which have been fair valued in accordance with IFRS 2.

(i) Stochastic valuation methodology was used for the LTIP awards and the QNEOS awards with market performance conditions and Black-Scholes methodology for the other awards.

(ii) Expected dividend yield is nil, consistent with the directors' view that the Group's model is to generate value through capital growth rather than payment of dividends.

(iii) The risk free rate is equal to the prevailing UK Gilts rate at grant date that most closely matches the expected term of the grant.

(iv) The fair value charge is spread evenly over the expected vesting period.

(v) The charge for the year ended 31 December 2013 for share-based payment amounted to £206,000 (2012: £193,000).

18. Capital and reserves

18a Share capital

Share capital represents the nominal value of shares issued.

18b Share premium

Share premium represents amounts subscribed for share capital in excess of nominal value less the related costs of share issues.

18c Merger reserve

The merger reserve represents the reserve arising on the acquisition of Synairgen Research Limited on 11 October 2004 via a share for share exchange accounted for as a Group reconstruction using merger accounting under UK GAAP.

18d Retained deficit

The retained deficit represents cumulative net gains and losses recognised in the consolidated statement of comprehensive income, adjusted for cumulative recognised share-based payments.

19. Related party transactions and balances

During the year ended 31 December 2013, the Group incurred consultancy fees with Prof. Stephen Holgate, a director of the Company, amounting to £4,000 (2012: £11,000) in addition to his director's remuneration disclosed on page 19. At the reporting date, the amount unpaid in respect of these charges was £15,000 (2012: £11,000).

During the year ended 31 December 2013, the Group incurred no consultancy fees with Ms Emma Toman, partner of Richard Marsden, a director of the Company (2012: £1,000). At the reporting date, there was no amount unpaid in respect of these charges (2012: £nil).

Details of key management personnel and their compensation are given in note 5 and on pages 19 and 20 of the Directors' Remuneration Report.

20. Post balance sheet events

On 10 March 2014, the Company raised £1,500,000 (gross) for working capital purposes by issuing 3,125,000 1p ordinary shares at a price of 48p per share.

Parent Company Balance Sheet

as at 31 December 2013

Company number: 5233429

	Notes	31 December 2013 £000	31 December 2012 £000
Fixed assets			
Investments	5	**19,557**	17,761
Current assets			
Debtors	6	**4**	9
Investments: short-term deposits		**458**	1,431
Cash at bank and in hand		**789**	1,632
		1,251	3,072
Creditors: amounts falling due within one year	7	**(29)**	(36)
Net current assets		**1,222**	3,036
Total assets less current liabilities		**20,779**	20,797
Capital and reserves			
Called up share capital	8	**752**	752
Share premium account	8	**19,422**	19,422
Profit and loss account	9	**605**	623
Shareholders' funds	9	**20,779**	20,797

The financial statements on pages 37 to 40 were approved and authorised for issue by the Board of directors on 19 March 2014 and signed on its behalf by:

Richard Marsden
Chief Executive Officer

John Ward
Finance Director

Notes to the Parent Company Financial Statements

for the year ended 31 December 2013

1. Basis of preparation

Synairgen plc's Parent Company balance sheet has been prepared under the historical cost convention and in accordance with UK Generally Accepted Accounting Practice ('UK GAAP').

As permitted by FRS 1 "Cash Flow Statements", no cash flow statement for the Company has been included on the grounds that the Group includes the Company in its own published consolidated financial statements. The Company has taken advantage of the exemption in FRS 8 "Related Party Disclosures" not to disclose related party transactions with wholly-owned subsidiaries.

2. Accounting policies

The following accounting policies have been applied consistently in dealing with items which are considered material to the Company's financial statements.

Investment in subsidiary undertakings

Investments in subsidiary undertakings where the Company has control are stated at cost less any provision for impairment. Control is achieved where the Company has the power to govern the financial and operating policies of an investee entity so as to obtain benefits from its activities.

Short-term deposits

Short-term deposits comprise deposits with UK banks for periods of up to twelve months. Short-term deposits are measured initially at cost and subsequently at cost or recoverable amount if lower. Interest is accrued evenly on an accruals basis.

Share-based payments

In accordance with FRS 20, when the Company grants options over equity instruments directly to the employees of a subsidiary undertaking, the effect of the share-based payment is capitalised as part of the investment in the subsidiary as a capital contribution, with a corresponding increase in equity.

Taxation

The charge for taxation is based on the loss for the period and takes into account taxation deferred.

Current tax is measured at amounts expected to be paid using the tax rates and laws that have been enacted or substantively enacted by the balance sheet date. Deferred tax balances are recognised in respect of all timing differences that have originated but not reversed by the balance sheet date, except that the recognition of deferred tax assets is limited to the extent that the Company anticipates making sufficient taxable profits in the future to absorb the reversal of the underlying timing differences.

Deferred tax balances are not discounted.

3. Loss attributable to members of the Parent Company

As permitted by Section 408 of the Companies Act 2006, the Company's profit and loss account has not been included in these financial statements. The loss dealt with in the financial statements of the Parent Company for the year ended 31 December 2013 was £224,000 (2012: loss of £225,000).

4. Directors' remuneration

The only employees of the Company are the executive directors and all their costs are borne by its subsidiary undertaking.

In respect of directors' remuneration, the disclosures required by Schedule 5 to the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 are included in the detailed disclosures in the audited section of the Directors' Remuneration Report on pages 19 and 20, which are ascribed as forming part of these financial statements.

5. Investments

	Investment in subsidiary undertaking £000	Loan to subsidiary undertaking £000	Capital contribution £000	Total £000
At 1 January 2013	140	16,706	915	17,761
Additions	–	1,590	206	1,796
At 31 December 2013	**140**	**18,296**	**1,121**	**19,557**

At 31 December 2013, the Company has an investment in the following subsidiary undertaking:

Name of company	Country of incorporation	Proportion of voting rights and ordinary share capital held	Nature of business
Synairgen Research Limited	England	100%	Drug discovery and development

6. Debtors

	2013 £000	2012 £000
Other tax and social security	**2**	2
Prepayments and accrued income	**2**	7
	4	9

All amounts fall due for payment within one year.

7. Creditors: amounts falling due within one year

	2013 £000	2012 £000
Trade creditors	**5**	5
Accruals and deferred income	**24**	31
	29	36

8. Share capital and share premium

	Note	Number of shares	Ordinary shares of 1p each £000	Share premium £000	Total £000
At 1 January 2012		69,560,064	696	17,128	17,824
Issuance of ordinary shares	(i) (ii)	5,624,272	56	2,445	2,501
Costs of issuance of shares		–	–	(151)	(151)
At 31 December 2012		75,184,336	752	19,422	20,174
Issuance of ordinary shares	(iii)	11,555	–	–	–
At 31 December 2013		**75,195,891**	**752**	**19,422**	**20,174**

(i) 5,555,556 ordinary shares of 1p were issued on 23 July 2012 at a premium of 44p per share to finance the Company's ongoing interferon beta programme and to provide working capital for the Company. Funds raised net of expenses amounted to £2,349,000.

(ii) 68,716 ordinary shares of 1p were issued on 28 September 2012 at par following the exercise of share options under the Company's long term incentive plan (LTIP).

(iii) 11,555 ordinary shares of 1p were issued on 17 October 2013 at par following the exercise of share options under the Company's long term incentive plan (LTIP).

Details of the Company's share option schemes and LTIP can be found in note 17 to the Group accounts on pages 35 and 36.

9. Reconciliation of movements in reserves and shareholders' funds

	Share capital £000	Share premium account £000	Profit and loss account £000	Shareholders' funds £000
At 1 January 2012	696	17,128	655	18,479
Issuance of ordinary shares	56	2,445	–	2,501
Transaction costs in respect of share issues	–	(151)	–	(151)
Loss for the year	–	–	(225)	(225)
Share-based payment credit	–	–	193	193
At 31 December 2012	752	19,422	623	20,797
Loss for the year	–	–	(224)	(224)
Share-based payment credit	–	–	206	206
At 31 December 2013	**752**	**19,422**	**605**	**20,779**

10. Post balance sheet events

On 10 March 2014, the Company raised £1,500,000 (gross) for working capital purposes by issuing 3,125,000 1p ordinary shares at a price of 48p per share.

Corporate Directory

Company number
5233429

Directors
Executive: Richard Marsden, Dr Phillip Monk, John Ward

Non-executive: Simon Shaw (Chairman), Iain Buchanan, Dr Bruce Campbell, Paul Clegg, Prof. Stephen Holgate

Secretary
John Ward

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Solicitors
Fasken Martineau LLP
17 Hanover Square, London W1S 1HU

Glossary

Acute
An acute disease is a disease with a rapid onset and/or a short course

Adenovirus
A virus that can cause respiratory disease (eg. the common cold), conjunctivitis and gastroenteritis

Airways (or bronchial tubes)
The tubes that carry air in and out of the lungs

Allergen
A type of antigen that produces an abnormally vigorous immune response

Antibiotic
A drug that inhibits bacterial growth or kills bacteria

Anti-viral
Any substance that can either destroy viruses or suppress their growth

Apoptosis
A naturally occurring form of programmed cell death

Assay
A laboratory test to determine parameters such as the strength of a solution, the proportion of a compound in a mixture, the potency of a drug or the purity of a preparation

Asthma
A disorder in which the airways become episodically narrowed, leading to wheeze, shortness of breath, cough and chest tightness

Biobank
A collection of samples from clinically-characterised volunteers comprising blood, induced sputum, bronchial biopsies and epithelial cells. These samples are used to develop the complex in vitro human disease models

Biomarker
A biomarker is a biochemical feature or facet that can be used to measure the progress of disease or the effects of treatment

Bioterrorism
Terrorism involving the intentional release or dissemination of biological agents

British Thoracic Society (BTS) Step classification system
A stepwise treatment regime (from steps 1 to 5, with 5 being the most severe) for treating asthma in Britain aiming to achieve optimum control without excessive medication

Broad spectrum antibiotic
An antibiotic that acts against a wide range of disease-causing bacteria

Bronchodilators
Medicines which relax the muscles around the airways, helping the airways to open up, so making it easier to breathe. There are several types of bronchodilators, of which short-acting beta-agonist drugs are the most commonly used

Bronchospasm
A sudden contraction of airway smooth muscle resulting in a narrowing of the airways

Chronic bronchitis
An inflammation of the airways accompanied by coughing and production of phlegm. The symptoms are present for at least three months in each of two consecutive years. See COPD

Chronic disease
A persistent or long-lasting condition

Clinical Trial Authorisation or CTA
An authorisation from the MHRA to conduct a clinical trial

Compliance
The level of adherence to a recommended course of treatment or prescribed regimen

COPD
Chronic obstructive pulmonary disease covers two conditions: chronic bronchitis and emphysema. COPD usually results from long-term exposure to irritants to the lungs, of which the most prevalent is tobacco smoke. Unlike asthma, where airflow obstruction varies, in COPD airflow obstruction is usually irreversible

Coronavirus
A virus that can cause respiratory disease such as the common cold or SARS (depending on the type of coronavirus) and gastroenteritis

DNA
Nucleic acid that carries genetic information in the cell

Emphysema
A destructive process involving the air spaces (alveoli) of the lungs, which leads to over-inflation of the lung and, when sufficiently advanced, causes breathlessness and lack of oxygenation of blood. See COPD

Eosinophil
A type of white blood cell that has a role in allergy and asthma

Epithelium
In the lung, the epithelium is a thin layer of cells which lines the airway tubes in order to protect and regulate the tissue underneath

Exacerbation
A rapid deterioration of a chronic disease that makes the symptoms worse

Gene
A hereditary unit consisting of a sequence of DNA that determines a particular characteristic of a living organism

IFN-β
Interferon beta is a natural protein found in the body which helps to regulate the immune system and fight off viruses. IFN-β is currently marketed by a number of companies as an injectable therapy for the treatment of multiple sclerosis

IL-5
A protein that can activate eosinophils

IL-13
A protein involved in allergic inflammation

Influenza-like illness
Set of symptoms presenting similar to those for influenza of which influenza may or may not be the cause

Influenza
A contagious viral infection of the respiratory tract, leading to fever, headaches, sore throat, congestion of the nose and body aches

In vitro
Carried out in the laboratory, e.g. in a test tube or culture plate

***In vitro model* (complex)**
A research model which contains more than one cell type and allows the study of interactions between different cell types and 'test' agents relevant to the disease or a therapy

Long acting beta agonist
An asthma drug that acts to relax (open) the airways for 12 or more hours

Lower airway
The airway tubes in the lung running from the throat down, ending in the air spaces (alveoli) where gas exchange occurs

Macrophages
Phagocytic (i.e. cells that can engulf other cells and cell components) white blood cells involved in cellular clearance and inflammation

MHRA
The Medicines and Healthcare products Regulatory Agency; a UK government body tasked with ensuring that medicines and medical devices work and are safe

Morbidity
Incidence or prevalence of a disease

Mucus
A gelatinous substance normally produced by the airway cells to protect and hydrate the airway surface from harmful agents

Multiple sclerosis (MS)
A disease affecting nerves in the brain and spinal cord, causing problems with muscle movement, balance and vision

Neuraminidase inhibitor
A class of drug used to treat influenza by interfering with virus release from the infected cell by blocking neuraminidase (a protein found on the virus cell surface), of which Tamiflu® and Relenza® are examples

Pandemic influenza
An influenza pandemic occurs when a new influenza virus appears against which the human population has no immunity, resulting in epidemics worldwide with enormous numbers of deaths and illness (definition on world health organization website)

Parainfluenza
A virus that can cause the common cold. Parainfluenza is also responsible for 75% of croup cases in children

Patent Cooperation Treaty or PCT
A system by which a patent application can be filed in many different countries at once. A single international application is filed initially at a receiving office. After a search and publication, the application may be converted to a series of national applications in different countries

Pathway
A signalling pathway is a group of molecules that work together in a cell to control one or more cell functions

Peak expiratory flow
A lung function test that measures a person's ability to breathe out air

Personalised/P4/stratified medicine
The customisation of healthcare to the individual patient

Phase I Clinical Trial
A study conducted in volunteers to determine the biological effects of a drug, especially safety and tolerability

Phase II Clinical Trial
A study in patients with the aim of making a preliminary determination of the efficacy of a drug to provide proof of concept and/or to study drug dose ranges

Phase IIa Clinical Trial
Used to describe a Phase II clinical trial evaluating efficacy, adverse effects and safety risks

Phase IIb Clinical Trial
Used to describe a subsequent Phase II clinical trial that also evaluates dosage tolerance and optimal dosage frequency in a larger number of patients than enrolled in a Phase IIa trial

Phase III Clinical Trial
A full scale clinical trial to determine drug efficacy and safety prior to seeking marketing approval

Phlegm
See Sputum

Placebo
An inactive substance or preparation used as a control/comparator (in a clinical trial for example) to determine the effectiveness of a medicinal drug

Primary endpoint
The most important measure (endpoint) assessed in a clinical trial

Prognostic biomarker
A biomarker that can predict the future course of a disease or response to a therapy

Prophylaxis
A measure taken for the prevention of a disease or condition

Protein
Large molecules made of smaller biological units known as 'amino acids'. Proteins are responsible for the majority of the function and much of the structure of living things, including humans

Pulmonary
Relating to, functioning like, or associated with the lungs

Rhinovirus
Rhinoviruses are the most common viral infective agents in humans. The most well known disease caused by rhinoviruses is the common cold

RNA
Nucleic acid that is involved in protein synthesis and transmission of genetic information

RSV
Respiratory syncytial virus (RSV) can cause both mild respiratory illness (e.g. the common cold) and serious respiratory tract infections (such as bronchiolitis and pneumonia). More severe infections can occur in the very young, the very old and those with weakened immune systems

Safety study
See Phase I Clinical Trial

Seasonal Influenza
Seasonal flu is a yearly outbreak of flu infection, caused by a flu virus. The seasonal flu is somewhat different every year, as flu viruses are always changing

Secondary/exploratory endpoint
The second most important (or additional) measure (or endpoint) assessed in a clinical trial

Severe asthma
Asthma which requires treatment with high dose inhaled corticosteroids plus a second controller (and/or systemic corticosteroids) to prevent it from becoming 'uncontrolled' or which remains 'uncontrolled' despite this therapy

SG004
A double-blinded, placebo-controlled, single and multiple dose-escalating Phase I study to assess the safety and tolerability of inhaled IFN-β in controlled asthmatic male and female subjects

SG005
A randomised, double-blinded, placebo-controlled Phase II study, comparing the efficacy and safety of inhaled IFN-β to placebo administered to asthmatic subjects after the onset of a respiratory viral infection for the prevention or attenuation of asthma symptoms caused by respiratory viruses

Sputum
The thick mucus which is coughed up by a person. Sputum contains cells and soluble substances secreted into the airways (bronchi), some of which can mediate disease if present in amounts different to normal. Sputum is also commonly called phlegm

Steroids
A group of chemicals that is produced naturally in the body by the adrenal gland. In asthma, steroids are given by inhalation or by mouth to reduce the inflammation of the airways

Systemic absorption
The fraction of drug that reaches the systemic circulation

Upper airway
The tubes in the nose and neck which conduct air into the lung

Toll-like receptor agonists
Novel anti-viral drugs that activate Toll-like receptors (TLRs). TLRs regulate the immune system in response to pathogens

Translational medicine
The process of converting a scientific discovery into something that aims to improve the health of individuals and the community

Type I IFNs
A classification of interferon that includes IFN-β

Virion
A virus particle which has the ability to infect cells, consisting of an outer protein shell called a capsid and an inner core of nucleic acid

Virus
A virus is a non-living small particle that infects cells in biological organisms. Viruses can reproduce only by invading and controlling other cells as they lack the cellular machinery for self-reproduction

Wheeze
A whistling sound made by a person who has airflow obstruction when breathing

synairgen plc

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