Breakthrough Science for **Severe Viral Lung Infections**

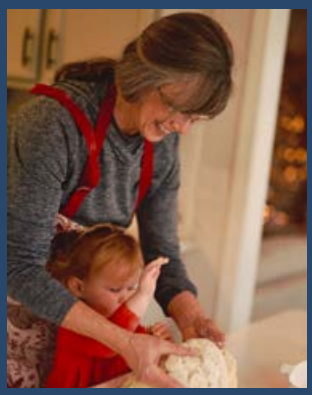
Annual Report and Accounts 2022

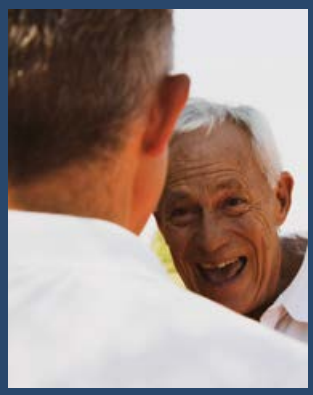
synairgen

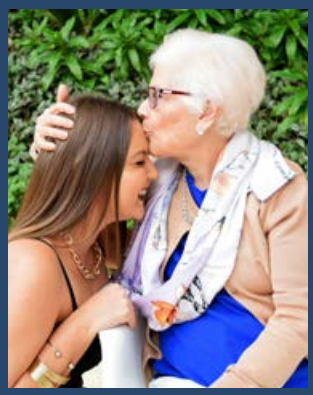
LSE: SNG
www.synairgen.com

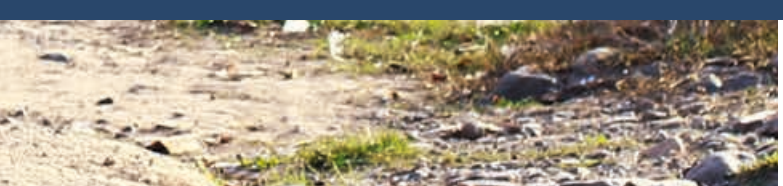
Breakthrough science for severe viral lung infections

We are a specialist respiratory biotech company whose primary focus is developing our investigative inhaled IFN-β therapeutic (SNG001) for the treatment and prevention of severe viral lung infections as potentially the first host-directed, broad-spectrum antiviral treatment delivered directly into the lungs.









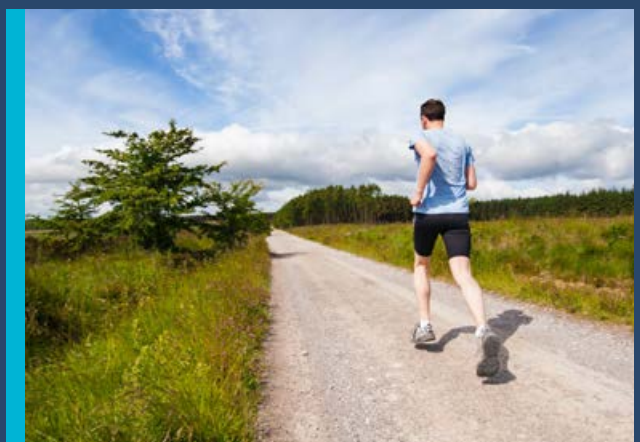
Highlights (including post period-end)

Operational

- **Completed further analysis of data accumulated from the more than 750 patients dosed to date with SNG001. Findings included:**
  - Development of stratification criteria to target specific patient populations in future clinical trials;
  - SNG001 reduced the risk of several recognised Long COVID symptoms;
  - Evidence of accelerated viral clearance of rhinovirus from the lung in COPD patients; and
  - Further demonstration of the well-tolerated safety profile of SNG001.
- **Announced data from the US NIH-led ACTIV-2 Phase 2 trial for SNG001 in COVID-19 which showed an encouraging reduction in hospitalisation with SNG001 versus placebo in home-based patients.**
- **Published data from the Phase 3 SPRINTER trial for SNG001 in hospitalised COVID-19 in the *European Respiratory Journal Open Research* in December 2022. Data from the trial, which did not meet primary or key secondary endpoints, included the observation of an encouraging signal in the reduction in progression to severe disease or death for patients treated with SNG001.**
- **Gained a deeper understanding of the extent of the mechanism of action of SNG001 as a host-directed, variant-agnostic antiviral agent:**
  - Potent antiviral activity was shown *in vitro* against SARS-CoV-2 Alpha, Beta, Delta, Gamma and Omicron Variants of Concern, addition to our existing *in vitro* studies which showed potent antiviral activity against a wide variety of seasonal respiratory and pandemic viruses including RSV, rhinovirus, various influenza strains including H5N1 and MERS-CoV.
- **Undertook a thorough evaluation of clinical development options to map out a route to conducting a Phase 3 registrational programme required for a regulatory submission.**
  - Identified a clinical development plan for SNG001 designed to address the unmet need in targeted, high-risk patient populations that appear to be most responsive to SNG001 in previous clinical trials, for example elderly patients and those with certain co-morbidities. In addition, we plan to assess SNG001 in immunocompromised patients who are particularly vulnerable to respiratory viral infections, ventilated patients with confirmed viral pneumonia, and also those who appear unable to clear virus and become long-term "shedders" and mutation hosts.
  - Plan will start with a series of focused, investigator-led/Synairgen-sponsored studies, using existing resources, which are intended to lead towards a Phase 3 registrational programme.
  - Preparation is underway for these focused trials to initiate in H2 2023.

Financial

- **Loss from operations for the year ended 31 December 2022 of £20.3 million (2021: £57.9 million), with R&D expenditure decreasing to £14.9 million (2021: £52.9 million).**
- **Cash and deposit balances of £19.7 million at 31 December 2022 (31 December 2021: £33.8 million).**



Chairman's Statement

> **"The Group's work in 2022 has shown that there is a significant unmet need in the broader respiratory antiviral area, in addition to the need to find potential treatment solutions for future viral pandemics. Respiratory virus infections remain a leading cause of death globally."**

2022 started with high hopes for the success of our Phase 3 clinical trial of SNG001 for the treatment of COVID-19 in hospitalised patients. Unfortunately, the trial did not meet its primary endpoints which was most likely due to improvements in standards of care and is further discussed in this report. However, the data did provide significant insights into the patient groups that appeared to benefit most from SNG001. This has enabled Synairgen to refocus on SNG001's potential both in the hospital and the home environment as a broad-spectrum antiviral for those most at risk of severe respiratory problems. This obviously includes COVID-19, however the Group's work in 2022 has shown that there is a significant unmet need in the broader respiratory antiviral area, in addition to the need to find potential treatment solutions for future viral pandemics. Respiratory virus infections remain a leading cause of death globally.

Working closely with our partners, including academic institutions, diagnostic and medical device companies, advisors, and our strong team of researchers, scientists and regulatory experts, and building on the substantial body of trial evidence we have for SNG001, the team spent much of the year advancing the clinical development plans to pursue this goal. These are in the process of being discussed with potential trial sites and investigators with a view to commencing later this year.

I would like to take this opportunity to thank the Board of Directors for their unwavering support during this challenging time. Their guidance and expertise have been invaluable in helping us navigate both the challenges and analysis of the opportunities. I would also like to note the retirement of Theo Harold and Iain Buchanan, both of whom have made significant contributions to Synairgen. At the same time, we are pleased to welcome Amanda Radford and Flic Gabbay to our Board of Directors. Their experience and insight will be instrumental in helping us achieve our goals.

I am proud of the dedication and hard work of our entire team in a particularly challenging year, and I am excited for our future progress in developing this novel treatment for a wide range of viral respiratory diseases.

Simon Shaw
Chairman

26 April 2023

Principal Activities and Strategy

Synairgen plc (the 'Company') is the holding company for Synairgen Research Limited, a UK-based respiratory drug discovery and development company, Synairgen Inc. and Synairgen Research (Ireland) Limited (together, the 'Group' or 'Synairgen').

Synairgen is developing SNG001, an investigative formulation of inhaled interferon beta ('IFN-β'), for the possible treatment and prevention of severe viral lung infections in high-risk patient groups. The development plan is outlined below in the Operational Review.

A glossary on pages 69 to 75 provides additional explanation of the more detailed scientific and clinical terminology referenced in this report.

Operational Review

Overview

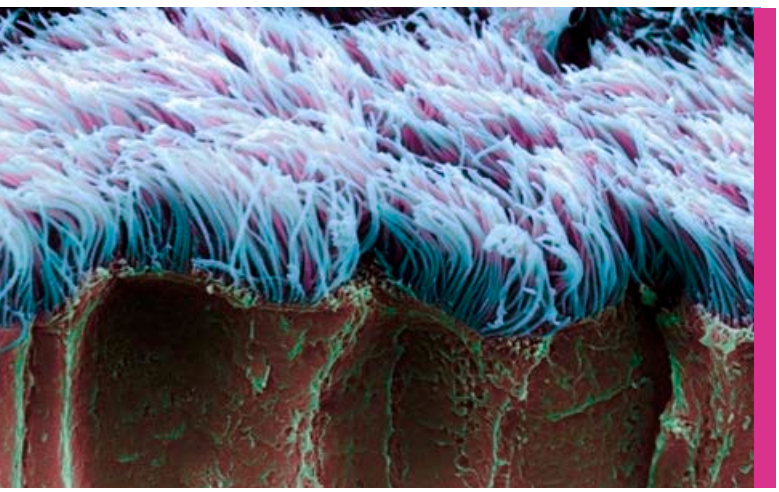
2022 was an important year for Synairgen, providing the Group with insights and data that have helped refine and clarify the potential for SNG001.

In the first quarter of 2022, the Group received the disappointing news that the Phase 3 SPRINTER trial of SNG001 in hospitalised patients with COVID-19 did not meet the trial's primary endpoints. Following the announcement of the topline results, *post hoc* analyses subsequently showed positive trends in subsets of higher risk patient groups within the trial. Through this work and months of investigation, both in-house and with clinical collaborators on both sides of the Atlantic, we have established a number of ways forward for the SNG001 development programme. We are embarking on these with renewed vigour in 2023.

From a clinical perspective, alongside the safety data accumulated to date from the more than 750 patients dosed with SNG001, we gained important new insights about the specific patient populations to target in future clinical trials, particularly in relation to the potential for reducing the risk of disease progression - whether in the hospital setting or the home environment. We can also see from the SPRINTER trial that SNG001 may have a positive effect in reducing the risk of several recognised Long COVID symptoms. Finally, a further analysis during the year of the SG015 Phase 2 trial in patients with COPD showed accelerated viral clearance of human rhinovirus in patients receiving SNG001 compared to placebo.

On the non-clinical side, we learned more about the mechanism of action of SNG001 as a host-directed, variant-agnostic antiviral agent. Adding to our existing *in vitro* studies which showed potent antiviral activity against a wide variety of seasonal respiratory and pandemic viruses including Respiratory Syncytial Virus ('RSV'), rhinovirus, various influenza strains including H5N1 and MERS-CoV, we showed potential antiviral activity in further *in vitro* studies against SARS-CoV-2 Alpha, Beta, Gamma, Delta and Omicron Variants of Concern.[1]

The market context is clear: there are no approved antiviral therapies for the majority of hospitalised adult patients due to respiratory viral lung infections, and the pandemic has highlighted the significant issues for health systems and patients as a result. In the US alone, approximately three million people are hospitalised every year due to viral lung infections such as rhinovirus, RSV, COVID-19, influenza and others.[2]



Bronchial cilia, SEM (P580/0140)

1 Synairgen on file.

2 IQVIA market research Q4 2022; Sources: US CDC, HCUP, IQVIA Claims Data, PubMed; data on file

Our work in 2022 has shown that there is a significant unmet need in this broader antiviral area, in addition to the need to find potential treatment solutions for future viral pandemics. Our clinical work over many trials to date indicates that SNG001 has potential utility against a wide spectrum of respiratory viruses in certain high-risk patient groups.

Development Plan

This accumulated non-clinical and clinical data, together with third-party research and feedback from the clinical community, has strengthened our conviction that SNG001 has potential as a broad-spectrum antiviral which could be directed towards certain types of patients infected with a wide range of respiratory viruses. The Synairgen team, and our collaborators and advisors, have assessed many different options for an optimal clinical development programme, and have mapped out a series of focused clinical trials to confirm the signals we have seen and investigate SNG001 against this wide spectrum of respiratory viruses in specific high-risk patient groups.

Mindful of the insights gained in 2022 and the challenges outlined, Synairgen continues to explore the potential of SNG001 in three settings:

1) For use as a broad-spectrum antiviral in people hospitalised with severe viral lung infections, particularly those in high-risk groups;

2) To prevent progression of disease/hospitalisation in high-risk patient groups with a range of respiratory viruses in the home setting; and

3) As a possible future pandemic preparedness option for government agencies.

We are now progressing protocols specific to three main opportunities for the next stage of the development programme namely in the patient populations identified: in the elderly (who were most at risk during the pandemic); immunocompromised (such as patients taking chemotherapy for whom even a common cold can delay effective treatment of their underlying disease); and other patients who may benefit most from the use of SNG001 (including ventilated patients with confirmed viral pneumonia and those who appear unable to clear virus and become long term "shedders" and mutation hosts). Both individually and collectively, these are significant unaddressed market opportunities.

Clinical Development Outlook

The Group and its clinical advisors believe that based on the safety data and body of pre-clinical and clinical data for SNG001 it has the potential to be the first inhaled broad-spectrum antiviral for the patients who are at high risk of disease progression.

The development of a broad-spectrum antiviral treatment has been a significant challenge in the field of antiviral research. The search for a broad-spectrum antiviral treatment can be traced back several decades, with a growing recognition of the need for a treatment that can effectively target a wide range of different viral infections.

In recent years, there has been increased recognition in the importance of developing broad-spectrum antivirals that target the host cell rather than the virus itself. However, despite this growing interest, there is currently no precedent for a broad-spectrum antiviral clinical development programme.

Many of the platform trials that emerged during the COVID-19 pandemic have completed or wound down in part due to lower rates of severe illness or changes in funding. Synairgen has been and remains in contact with the relevant platform trial investigators and will continue to evaluate options should they arise; in parallel, wanting to move forward at pace, we believe that implementing our own clinical development plan as quickly as possible will provide promising opportunities to collect appropriate and meaningful data to support an eventual regulatory submission.

Over the past year, the Group has undertaken a thorough evaluation of clinical development options with the aim of conducting a Phase 3 registrational programme required for a regulatory submission. As there is no precedent for a broad-spectrum antiviral clinical development programme, designing and determining a clinical pathway is complex as there are multiple viruses being targeted for different high-risk patient groups. It has been determined that to achieve this aim, a multi-staged clinical development plan is required.

The Group is now advancing a clinical development plan for SNG001 designed to address the unmet need in targeted patient populations that appear to be most responsive to SNG001 in previous clinical trials, as well as in immunocompromised patients who are particularly vulnerable to respiratory viral infections and also ventilated patients with confirmed viral pneumonia. This plan will start with a series of focused, investigator-led/Synairgen-sponsored studies that build a pathway towards a Phase 3 registrational programme. Preparation is underway for these focused trials to start in H2 2023.

Clinical Need

Severe viral lung infections can be caused by a variety of viruses, including influenza, coronaviruses, RSV, rhinovirus, and adenovirus, among others. These infections can lead to serious complications, including pneumonia, acute respiratory distress syndrome (ARDS), and death, particularly in vulnerable, high-risk populations such as elderly individuals, those with COPD and asthma, and people with weakened immune systems.

In the US, severe viral lung infections are responsible for upwards of three million hospitalisations annually, at a cost of $50 billion.[3]

Current antiviral treatments are limited in their efficacy, as they are typically specific to a single virus . For example, while certain antivirals are effective against influenza, they are not effective against other viruses that can cause severe lung infections, such as coronaviruses or RSV.

This highlights the need for a broad-spectrum antiviral that can effectively treat a range of different viral lung infections, regardless of the specific virus causing the infection. A broad-spectrum antiviral would be a valuable addition to the healthcare arsenal, as it would improve outcomes for patients and reduce the spread of viral infections in healthcare settings. Additionally, a broad-spectrum antiviral would be useful in the event of a pandemic caused by a novel virus, as it would provide a treatment option even if the aetiology of the specific virus is not yet known.

In summary, the need for a broad-spectrum antiviral to treat severe viral lung infections is driven by the high incidence of severe lung infections caused by a variety of different viruses, the limited number and efficacy of current antivirals, and the potential to improve outcomes for patients and reduce the spread of viral infections.

The annual cost of hospitalisations for severe lung infections illustrates the substantial market opportunity for an effective broad-spectrum antiviral to treat such infections.

Rationale for SNG001 as a Broad-spectrum Antiviral

There is a strong scientific rationale underpinning SNG001 for use in treating patients infected with a broad range of respiratory viruses, combined with its safety profile and a growing body of encouraging clinical and non-clinical data which has helped us better understand the potential role SNG001 might play in treating patients at risk of developing severe illness due to these respiratory viruses.

The Group has conducted *in vitro* testing of SNG001 against a broad range of respiratory viruses ranging from seasonal cold and flu viruses like RSV and rhinovirus; highly pathogenic viruses such as H5N1, a form of 'bird flu', MERS-CoV and SARS-CoV-2 variants of concern including Alpha, Beta, Gamma, Delta and Omicron.[4] *In vitro* tests have shown potent antiviral activity at concentrations that are readily achievable following inhaled delivery of interferon beta. We believe these concentrations could not be accomplished at the lining of the lungs via the injected route, and indeed recent studies have shown systemic use of IFN-β through injection is ineffective in fighting COVID-19 in the lungs.[5]

2022 Clinical Summary and Progress

SPRINTER – Investigating SNG001 in the hospitalised environment

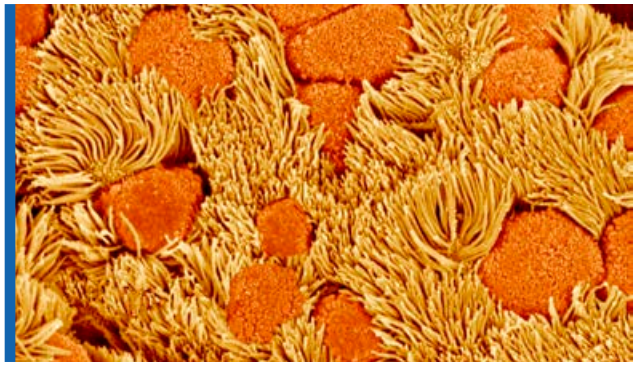
SPRINTER (SG018; NCT04732949) was a global, randomised, placebo-controlled, double-blind clinical trial assessing the efficacy and safety of inhaled SNG001 for the treatment of adults hospitalised due to COVID-19 who required treatment with supplemental oxygen. The trial recruited a total of 623 patients who were randomised to receive SNG001 (n=309) or placebo (n=314) on top of standard of care.

Synairgen announced in February 2022 that the Phase 3 SPRINTER trial did not meet the primary endpoints of discharge from hospital and recovery. There was, however, an encouraging signal in the key secondary endpoint of reduction in the relative risk (RRR) of progression to severe disease or death within 35 days including a 25.7% reduction in the Intention-to-Treat population and 36.3%

3 Hartnett J. Influenza Other Respir Viruses. 2022;16:906–915; Pastula ST et.al.,OFID, 2017,ofw270; Zhou JA et.al., CID, 2020, 70(5): 773-779; Disease Burden of Flu | CDC; Preliminary Medicare COVID-19 Data Snapshot (Dec 2021); ICER Report: Special Assessment of Outpatient Treatments for COVID-19 (Feb 2022).

4 Synairgen on file.

5 WHO Solidarity Trial Consortium. Repurposed Antiviral Drugs for Covid-19 – Interim WHO Solidarity Trial Results. N Engl J Med. 2021;384:497–511.



Lung lining, SEM (P580/0175)

reduction in the Per Protocol population (though neither was statistically significant).

To assess the strength of this signal and identify specific patient populations that might benefit most from treatment, *post hoc* analyses were performed on groups of patients recognised to be at greater risk of developing severe disease in hospital. These analyses included patients ≥65 years old, those with co-morbidities associated with worse COVID-19 outcomes and those who, at baseline, despite receiving low flow oxygen, had clinical signs of compromised respiratory function (defined as oxygen saturation of ≤ 92% or respiratory rate ≥ 21 breaths/min).

These analyses showed stronger treatment effects with SNG001 in high-risk patient subgroups, with the strongest effect observed in those who had clinical signs of compromised respiratory function. In these patients, who represented approximately one-third of the SPRINTER trial population, SNG001 significantly reduced the risk of progression to severe disease or death compared to placebo by 70% in the Per Protocol population (Odds Ratio (95% Confidence Interval) 0.23 (0.06, 0.98); p=0.046).

The data from this pivotal trial was presented at the Clinical Trials Symposium of the American Thoracic Society 2022 (ATS 2022) International Conference in San Francisco, California in May 2022 and appeared in the peer-reviewed European Respiratory Journal Open Research (ERJOR) in December 2022.

In addition to this, Long COVID symptoms and patient reported outcome measures were assessed as a secondary endpoint of the SPRINTER trial at follow-up visits via telephone/video call on Day 60 and 90. Patients on SNG001 saw the relative risk of fatigue/malaise reduced [RRR=35.4%], one of the most common symptoms of Long COVID.

ACTIV-2 – Investigating antiviral treatments in the home environment

In October 2022, Synairgen received the positive topline results for outcomes through 28 days of follow-up from the Phase 2 evaluation of SNG001 from the US National Institute of Allergy and Infectious Diseases (NIAID) ACTIV-2 trial (Protocol ACTIV-2/A5401: "Adaptive Platform Treatment Trial for Outpatients with COVID-19 [Adapt out COVID]"; Appendix B). This trial was established to investigate potential therapies in adults experiencing mild to moderate COVID-19 outside of the hospital setting. Based on the study results, the Independent Data Safety Monitoring Board for ACTIV-2 recommended SNG001 advance from Phase 2 into Phase 3 but in March 2022, the NIH decided to halt all participant recruitment in the trial due to the significant shift in the nature of the pandemic. At that point, the Phase 3 component, including SNG001, was halted.

Overall SNG001 was well-tolerated and there was no statistically significant difference between SNG001 and placebo with respect to the primary safety outcome measure, and there were no statistically significant differences in the other primary outcomes namely time to symptom improvement or viral clearance. It is notable that one patient was hospitalised in the SNG001 treatment group compared with seven in the placebo group (1/110 SNG001 versus 7/110 placebo, representing an 86% relative risk reduction p=0.07). While the Phase 2 stage of the trial was not powered to prove this, the promising decrease in hospitalisations in patients that received SNG001 may be important, especially combined with a good safety profile.

The data from the ACTIV-2 trial was presented at the Conference on Retroviruses and Opportunistic Infections Conference (CROI) in February 2023 by Dr William Fischer from the University of North Carolina at Chapel Hill and have been submitted for publication in a peer-reviewed journal.

To build on the results of the ACTIV-2 trial, one of the clinical opportunities we are investigating for SNG001 is its use in the home environment to help prevent hospitalisation in high-risk patients with a wide range of viral lung infections.

SG015 COPD trial virology

In early 2020, due to the emergence of SARS-CoV-2, Synairgen's SG015 (NCT03570359) trial in COPD patients was paused with 109 out of the targeted 120 patients recruited. An interim analysis of the data was reported in September 2020 which demonstrated that SNG001 boosted lung antiviral responses as assessed using sputum biomarkers and a significant improvement in the lung function of exacerbating patients.

In September 2022, Synairgen reported positive data from *post hoc* assessments of lung sputum samples from SG015 which showed that SNG001 accelerated clearance of rhinovirus (which approximately half of the trial participants had) from the lungs. This builds on existing data supporting SNG001's mechanism of action.

Manufacturing

As we look ahead to delivering the clinical development programme, we have made the strategic decision to focus our manufacturing efforts on the supply of additional pre-filled syringe drug product and placebo for clinical trials. While we remain committed to exploring new packaging options, such as blow-fill-seal delivery, we believe that at this time it is important to prioritise the production of SNG001 to fulfil current requirements, using current proven process and materials.

Outlook

Underpinned by the encouraging data accumulated to date for SNG001 and that respiratory virus infections remain a leading cause of death globally, we remain excited by its potential to be the first inhaled broad-spectrum antiviral for patients at high risk of disease progression, in both the hospital and home environment. Based on the significant clinical need and the insights gained from our clinical and pre-clinical data, the Group will advance its clinical development plan for SNG001 with a series of focused, investigator-led/Synairgen-sponsored studies, commencing in H2 2023 utilising existing cash resources, to build a pathway towards a Phase 3 registrational programme.

We continue to gather valuable insights from studies conducted and look forward to presenting our latest analysis of the Phase 3 SPRINTER trial data at ISIRV and ATS in May and updating all our shareholders on our progress in due course.

Financial Review

The Financial Review should be read in conjunction with the consolidated financial statements of the Company and its subsidiaries (together the 'Group') and the notes thereto on pages 39 to 60. The consolidated financial statements are prepared in accordance with UK-adopted international accounting standards.

The financial statements of the Company, set out on pages 61 to 68, are prepared in accordance with Financial Reporting Standard 101 Reduced Disclosure Framework.

Consolidated Statement of Comprehensive Income

The loss from operations for the year ended 31 December 2022 was £20.3 million (2021: £57.9 million loss) with research and development expenditure amounting to £14.9 million (2021: £52.9 million) and other administrative expenses of £5.4 million (2021: £5.0 million).

Research and development expenditure continued to be focused on clinical trials and manufacturing activities.

Clinical trial expenditure on SPRINTER, SG015 and SG016 reduced markedly compared to 2021. Additional preparatory costs for the ACTIV-2 Phase 3 study were incurred in 2022 prior to the trial being halted.

Manufacturing activities (including procurement of long lead time items) also reduced significantly in 2022 with the main area of expenditure being on outsourced activities, including blow-fill-seal drug product development, release testing, stability testing and comparison testing, with all costs being expensed to the income statement.

Other administrative expenses, which comprises all expenses which are not research and development expenditure, of £5.4 million in 2022 remained broadly in line with the total expenditure of £5.0 million in 2021. There was greater expenditure on medical affairs and corporate communications in 2022 compared to 2021 when there was a greater expenditure on pre-commercialisation activities.

Interest receivable increased from £nil to £0.2 million as deposit interest rates increased during the second half of 2022.

The research and development tax credit decreased from £9.2 million to £2.4 million in line with reduced qualifying research and development expenditure. The credit equates to 16% of our 2022 research and development expenditure (2021: 17%).

The loss after tax for 2022 was £17.6 million (2021: £48.7 million) and the basic loss per share was 8.76p (2021: basic loss per share of 24.28p).

Consolidated Statement of Financial Position and Cash Flows

At 31 December 2022, net assets amounted to £20.3 million (2021: £37.0 million), including cash and deposit balances of £19.7 million, comprising cash and cash equivalents of £15.9 million and other financial assets – bank deposits of £3.8 million, (2021: £33.8 million cash and cash equivalents).

The principal elements of the £14.1 million decrease during the year ended 31 December 2022 (2021: £41.2 million decrease) in cash and deposit balances were:

- Cash outflows from operations before changes in working capital: £19.3 million (2021: £57.2 million), with the reduction being attributable to the lower research and development expenditure as explained above;
- Changes in working capital: £4.1 million outflow (2021: £12.2 million inflow), on account of the reduction in trade and other payables as discussed below. In 2021 there was a reduction in trade and other receivables of some £7.8 million and an increase in trade and other payables of £4.4 million;
- Interest received £0.1 million (2021: £nil); and
- Research and development tax credits received: £9.1 million (2021: £3.9 million) on account of receipt of the 2021 tax credit.

The other significant changes in the Statement of Financial Position were:

- Current tax receivable decreased from £9.1 million to £2.4 million on account of the lower research and development tax credit receivable; and
- Trade and other payables decreased from £7.6 million to £3.3 million as trade payables reduced from £4.2 million to £0.5 million in line with the reduction in the level of operating expenditure.

Parent Company Balance Sheet

Company-only impairment of investment in subsidiary

Following the announcement of the results of Synairgen Research Limited's Phase 3 SPRINTER trial on 21 February 2022, the share price of Synairgen plc (the Parent Company) fell 84% from its closing price of 171.0p on Friday 18 February 2022 to a closing price of 27.2p on 21 February and for the remainder of 2022 closed at a range of between 12.4p and 35.0p. The fall in share price is an indicator of possible impairment in the carrying value of the Parent Company's investment in Synairgen Research Limited. We have therefore assessed the recoverable amount of this investment using a value in use methodology which has been calculated by applying a pre-tax 14.9% discount rate to the risk adjusted post tax cash flows projected to arise from the SNG001 programme as a broad spectrum antiviral. As a result of this review, we have recognised an impairment loss, a non-cash charge, of £66.2 million. It should be noted that this impairment review exercise is for accounting purposes; therefore it does not seek to derive a market valuation for the Company or its programmes.

Determining the estimated recoverable amount of Synairgen Research Limited is judgemental in nature and requires the use of certain estimated inputs that represent key sources of estimation uncertainty.

Further details can be found in note 4 of the Parent Company financial statements.

Key Performance Indicators (KPIs)

The Board considers that the most important KPIs during the year under review are non-financial and relate to the progress of the clinical programmes and the advancement of manufacturing activities, which are discussed elsewhere in this report.

The most important financial KPIs are the research and development expenditure on the Phase 3 SPRINTER clinical trial and on-going manufacturing activities, and the cash position of the Group. Cash and deposit balances reduced from £33.8 million to £19.7 million principally on account of the planned research and development expenditure. The financial results are discussed in the Financial Review above.

Section 172 Statement

As required by section 172 of the Companies Act 2006, a director of a company must act in a way they consider, in good faith, would most likely promote the success of the company for the benefit of its shareholders. In doing this, the director must have regard, amongst other matters, to the:

a) Likely consequences of any decisions in the long-term;
b) Interests of the Company's employees;
c) Need to foster the Company's business relationships with suppliers, customers and others;
d) Impact of the Company's operations on the community and the environment;
e) Desirability of the Company maintaining a reputation for high standards of business conduct; and
f) Need to act fairly between members of the Company.

As a Board, our aim is always to uphold the highest standards of governance and business conduct, taking decisions in the interests of the long-term sustainable success of the Company, generating value for our shareholders and contributing to wider society. We recognise that our business can only grow and prosper over the long term by understanding the views and needs of our stakeholders. Engaging with stakeholders is key to ensuring the Board has informed discussions and factors stakeholder interests into decision-making.

Strategic Report
(continued)

The following table, in combination with the Corporate Governance Statement set out on pages 18 to 21 and the Company's website (www.synairgen.com), sets out the framework of our engagement with key stakeholder groups.

Our stakeholders	Material topics	How we engage
Investors The Group continues to consume cash resources and remains dependent upon securing funding through share issues. It is therefore critical that we have shareholders who will continue to invest in the Company over the longer term.	→ Business strategy → Operational performance → Financial performance and cash requirements → Enviromental, Social and Corporate Governance (ESG)	→ RNS announcements → Website and social media updates → Meetings after preliminary statement release and interims for investors → AGM → Proactive Investor interviews → Responses to direct investor questions
Employees Synairgen has 34 employees (including executive directors), who are multi-skilled and many of them have worked for the Group for many years. They all play a key role in the business and it is vital that they all understand and support the key decisions taken in the running of the business.	→ Operational targets and progress → Opportunities to share ideas → Financial resources of the Group → Share price → Working time flexibility and working from home	→ Bi-monthly scheduled company meetings and a policy of open disclosure → Regular virtual and face-to-face team meetings → Open door policy to executive directors → Company intranet → Use of share-based incentives for employees
University of Southampton Synairgen is a spin-out company from the University and still maintains many links with it, which benefit both parties. The University is Synairgen's landlord and certain intellectual property is licensed from it.	→ Operating facilities → Intellectual property → Joint projects → Published papers	→ Meetings with Founders → Interaction on projects with scientists and clinicians and the University's Research & Innovation Services team
Suppliers We have a number of key long-term suppliers who play an important part in our development programmes and it is important that we understand their product/service development plans and they understand our needs.	→ Supplier product development plans → Our clinical trial, manufacturing and longer-term development needs	→ Regular project meetings
Customers (licensees) Our customers are the large pharmaceutical and biotech companies who have the resources and infrastructure to take our products to market. It is therefore critical that we continue to interact with these companies at an early stage to make sure we are developing a product which they may wish to license.	→ Programme development plans, including clinical trial designs → Clinical trial read-outs → In-house and external competing products	→ Regular meetings at key respiratory and anti-infective conferences (ATS, ERS, ECCMID and ID Week) and meetings during business development conferences
Community We aim to develop therapeutics which pharmaceutical companies can sell to the community and which governments will buy for stockpiling and it is therefore critical that there is an identified market need in the community.	→ New therapeutics development → Involvement in clinical trials	→ Interactions with government agencies → Interactions with clinicians and Key Opinion Leaders, including Advisory Boards → Patient data from clinical trials

Our stakeholders	Material topics	How we engage
Regulators We work in a highly regulated sector and it is critical that we maintain full compliance with all appropriate regulations.	→ Clinical trial approvals → Scientific advice for authorities on key development topics → Regulatory compliance	→ Use of external consultants to ensure we are complying with regulations → Interactions with Ethics Committees, MHRA, FDA, EMA and other regulatory agencies

Principal Decisions in 2022

We have considered the decisions taken by the Board which will have an impact on the longer-term performance and prospects for the Group. The Board believes that three key decisions taken during the year fall into this category and were made with full consideration of both internal and external stakeholders:

- → The decision to devote resource to the complete analysis of the data from the SPRINTER Phase 3 trial, particularly with regards to high-risk patient groups;
- → The decision to identify and engage with COVID-19 (and other viruses) platform trials and their principal investigators, to establish interest in SNG001; and
- → The decision to transition from a COVID-19-directed development plan to a targeted broad-spectrum ('all viruses') development plan addressing key high-risk patient groups.

Post period-end, the Board has considered the next strategic steps for the development of SNG001 and is now embarked on a strategy of commencing a number of focused clinical trials in high-risk patients and also determining a way towards commencing a larger trial in high-risk non-hospitalised patients.

Principal Risks and Uncertainties

In addition to the fact that the Group has only one candidate (SNG001), albeit with a number of potential indications, and is therefore dependent on there being a successful outcome to its development, the Board considers that the principal risks and uncertainties facing the Group may be summarised as follows:

Ability to design and deliver appropriate broad-spectrum clinical trials

The Group's strategy includes developing SNG001 as a broad-spectrum antiviral which will require a series of clinical trials, for which there is little regulatory guidance or precedence. At this stage these clinical trial protocols are still at the development stage, however, initial focused studies will provide data to inform the design and implementation of regulatory studies.

While there can be no guarantee at this stage that these trials will be approved by the regulatory agencies and that it will be possible to complete them, the risks are minimised by the fact that the studies are built upon the existing data on SNG001, consider the regulatory environment for antivirals, include input from regulatory and clinical development experts, as well as advice from Key Opinion Leaders and potential Investigators. Regulatory scientific advice will be sought for those studies that might be novel or form a key part of the regulatory pathway to an eventual marketing authorisation application.

Pre-clinical testing and/or clinical trials fail to generate positive data

There is a high failure rate in the development of pharmaceuticals and there is a substantial risk of adverse, undesirable, unintended or inconclusive results from pre-clinical testing or clinical trials, which may substantially delay, halt entirely or make uneconomic any further development of SNG001 and may prevent or limit its commercial use.

The pre-clinical and clinical trial data that has been previously generated, as well as other scientific evidence, supports the rationale for the proposed clinical trials. The programme of clinical studies follows a logical development path with focused initial studies providing data which can be used to appropriately design key regulatory studies to reduce risks of failure.

Clinical trials overrun

There are a number of factors which may lead to delays, including but not limited to: (i) delays to regulatory approvals; (ii) variations in labelling and other regulatory requirements between countries; (iii) dealing with protocol changes; and (iv) difficulty in finding suitable sites and patients, including competition for patients from competing clinical trials.

If any of the above circumstances or events occur, then delays may impact the clinical development programme timetable, which in turn may also have cost and/or ultimately commercial implications.

The Group seeks to mitigate these risks through: ongoing risk assessment; close project management; selection procedures for all key suppliers (including trial sites); and regular ongoing contact with sites and other key vendors throughout trials.

The regulatory approval processes of the MHRA, EMA, FDA and other comparable regulatory agencies may be lengthy, time-consuming and unpredictable

The Group's future success is dependent upon its ability to develop successfully, obtain regulatory approval for, and then successfully commercialise SNG001, which it may do independently or in partnership with another pharmaceutical company. Even if SNG001 is successful in clinical trials, there can be no assurance it will receive regulatory approval at all or in a timely manner. A drug which has received approval in one territory may not succeed in getting approval in other territories and regulators in different jurisdictions may seek different criteria and endpoints in order for regulatory approval and marketing authorisations to be granted.

The Group takes the advice of specialist regulatory advisers and maintains an on-going dialogue with regulators.

Commercial risk

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

Synairgen continues to build its commerical capabilities and partnerships to maximise the strength of SNG001 'go to market' strategic options, pending regulatory approval.

There are a number of competing antiviral therapeutics at different stages of development

There are a number of competing therapeutics for antiviral applications at varying stages of development, which may be brought to market more quickly than SNG001 or prove to be more effective, desirable or cheaper. Some of the Group's competitors have substantially greater financial and other resources. There can therefore be no assurance that competitors will not succeed in developing products which would render SNG001 non-competitive.

Currently, antivirals in development are largely targeting the virus itself and are mainly specific to a single virus. The host-directed, virus-agnostic mode of action of SNG001 means it has a broader potential utility and fewer direct competitors. The large market for respiratory viral diseases, and potential for new viruses and variants, means there are likely to be opportunities for a number of products to be commerically available before any significant market saturation. The Group continuously monitors the competitive environment and medical need to appropriately target and refine the development and future commercial strategies.

Synairgen is dependent on a small team of key personnel and scientific and clinical collaborators

The Group's success is highly dependent on the expertise and experience of a small team of key personnel and scientific and clinical advisers/contractors. While the Group has entered into employment and other agreements with each of these key personnel, the retention of such personnel cannot be guaranteed. Should key personnel leave or no longer be party to agreements or collaborations with the Group, the Group's business prospects, financial condition and/or results of operations could be adversely affected.

To mitigate this risk, the Group has recruited additional staff and contracted with certain key partners to provide services to the Group, including CRO services, regulatory affairs consultants and clinical management services.

Manufacturing complexity

SNG001 beta Interferon-1a is expressed as a recombinant protein using CHO cells. As a biological product the drug substance manufacturing process is well controlled to ensure product consistency. The purified drug substance is formulated and filled under sterile conditions to manufacture drug product. This activity is governed by a revised HPLC content assay, which is currently undergoing further development to optimise consistent run-to-run performance. A delay in the satisfactory demonstration that this method is fit for purpose may impact on the availability of drug product for use in the planned clinical trials.

Failure of a manufacturing batch due to process error or product quality may delay the timing for clinical resupply as well as deplete drug substance stocks.

In terms of regulatory compliance, the next key milestone is gaining approval from the FDA that the new drug substance is deemed comparable to the Rentschler-manufactured drug substance and is clinically interchangeable. If this is not achieved, the risk is that drug product manufactured using the new drug substance may not be granted approval for use in clinical studies in the US without undergoing additional testing.

Project risk is mitigated through the close involvement of experienced CMC and laboratory staff, combined with additional specialist consultants. This extends into careful selection and management of the drug product Contract Manufacturing Organisaton. In the event that additional work is required to be undertaken to prove drug product comparability with previously manufactured clinical materials, clinical trial activity would be undertaken at UK and EU clinical trial sites in the short term.

The Group is dependent on third party supply, manufacturing and clinical service relationships

In common with other drug developers of similar size, the Group engages the expertise and resources of third parties in a number of key areas including: (i) the conduct of clinical trials; (ii) the manufacture, scale-up, fill/finish, analytical testing and supply of SNG001; and (iii) the manufacture and supply of the nebuliser. Critical and complex aspects of the Group's business, including ownership of the drug substance cell line, are therefore in the hands of third parties over whom the Group has limited control. The Group cannot guarantee that those third parties or their suppliers (including suppliers of raw materials and components necessary for manufacturing activities) will be able to perform their contractual and regulatory obligations satisfactorily or on time.

Default, delay, non-compliance with law and regulation or other sub-optimal performance by a third party may adversely affect the Group's business plans and prospects.

Regulatory requirements for pharmaceutical products tend to make the substitution of counterparties costly and time-consuming. Alternative suppliers may not be able to manufacture products effectively, on time or obtain the necessary manufacturing licences from applicable regulatory authorities.

The Group seeks to minimize risk by holding regular meetings with key suppliers and the use of internal staff, project managers and other consultants to manage the relationships.

Intellectual property

The commercial success of the Group depends on its ability to obtain patent and other market-related protection for its products in the US, Europe and elsewhere 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 products. 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 working with patent attorneys and other advisor to maximise in-market protection where appropriate, and by minimising disclosure to third parties.

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 funding through the injection of equity capital or from collaborations with pharmaceutical companies. The Group may not be able to generate positive net cash flows in the future or attract such additional funding required on suitable terms, or at the time it is needed. In such circumstances, the Group's 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.

Insurance risk

The Group may not be able to procure adequate insurance cover to enable it to continue its operations.

Cyber-attack or IT systems failure

The Group is at risk of cyber-attack or IT systems failure to it or its key suppliers, which may cause operational harm, including potential theft or loss of data.

The Group seeks to minimise this risk by retaining the services of external IT advisers, pursuing suitable back-up and security policies, and maintaining Cyber Essentials certification.

By order of the Board

Richard Marsden
Chief Executive Officer

26 April 2023

Board of 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 was 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'). 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
Chief Financial Officer

John Ward joined Synairgen in October 2004 as Finance Director and was appointed Chief Financial Officer in March 2021. 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.

Dr Bruce Campbell
Non-executive Director

Bruce Campbell joined Synairgen as a non-executive director in April 2006. He has 50 years of drug development experience and has developed many drugs in a wide range of indications which are now on the market. He currently acts as a consultant to various European companies. 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, a member of the European ICH Safety Working Party and a scientific advisor to IP Group plc.

Dr Felicity (Flic) Gabbay
Non-executive Director

Flic Gabbay joined Synairgen as a non-executive director in September 2022. She has extensive experience within the life sciences sector including holding several senior and CEO positions in big pharma, biotech and CROs in both Europe and North America. She is Founding and Senior Partner at TranScrip Ltd, a contract drug development CRO. Starting her career as a medical doctor, Flic held various medical research posts in Europe and the US before moving into the biotechnology sector. She is the current President of the Faculty of Pharmaceutical Medicine for the three Royal Colleges of Physicians, a Fellow of the Academy of Medical Sciences and an Honorary Fellow of the British Pharmacological Society.

Prof. Sir 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 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 1,300 papers in peer-reviewed literature. He is Trustee of the Natasha Allergy Research Foundation, Chair of The Kennedy Trust for Rheumatology Research and Member of the Natural Environment Research Council. He is Principal Investigator of the UKRI/Met Office Clean Air Strategic Priority Fund Champion grant and is Special Advisor to the RCP on air quality. He also serves on a number of Advisory Committees in industry and the Research Councils.

Amanda Radford
Non-executive Director

Amanda Radford joined Synairgen as a non-executive director in December 2022. She is currently Group Financial Controller of BSI Group. She has previously held senior financial positions at companies including Convatec Group plc, Post Office Ltd, Pets at Home Vet Group and TalkTalk Telecom Group. She is a Chartered Accountant.

Corporate Governance Statement

The Board of directors of the Company (the 'Board') is accountable to the Company's shareholders for good corporate governance and it is the objective of the Board to attain and maintain a high standard of corporate governance. As Chairman, it is my primary responsibility to lead the Board effectively and to oversee the adoption, delivery and communication of the Company's corporate governance model.

In September 2018, the Board adopted the Quoted Companies Alliance Corporate Governance Code ('QCA Code'). On our website (www.synairgen.com/investors/corporate-governance-statement/) we set out how we seek to comply with the ten principles of the QCA Code. The following sections of the Corporate Governance Statement explain how the QCA Code is applied by the Company.

Board of directors

On 31 December 2022, the Board consisted of myself, as the non-executive Chairman, three executive directors (Richard Marsden, Dr Phillip Monk and John Ward), and four non-executive directors (Dr Bruce Campbell, Dr Flic Gabbay, Prof. Sir Stephen Holgate and Amanda Radford).

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.

Brief biographies for the directors are given on pages 16 and 17. The key experience, skills, qualities and capabilities that each director brings to the Board are summarised below:

Simon Shaw
Simon is an experienced public company director, having fulfilled both the roles of Chief Financial Officer and Chief Operating Officer for listed companies. He has life science company experience and in addition to his skills as a Chairman, contributes strong financial and corporate finance skills. As an executive director of a FTSE 250 company, he keeps his skill set in these areas up to date.

Richard Marsden
Richard has worked in several roles within the life sciences sector and has experience of sales and marketing, clinical trials, project management, business development and general management. He is actively involved in the design and management of clinical trials and leads the Company's business development activities. He maintains and develops his skill sets in these areas by regular interaction with the Group's expert advisers and key opinion leaders ('KOLs').

Dr Phillip Monk
Phillip is a leading scientist in respiratory biology, with experience of managing teams of scientists and taking drugs through pre-clinical and early clinical trials. His particular contribution to the Board is championing the identification and management of new opportunities up to the clinical stage, and maximising value from clinical trials, particularly with reference to biomarker and statistical analysis. Phillip regularly interacts with expert advisers/KOLs and attends key relevant medical conferences.

John Ward
John is a Chartered Accountant who has worked for more than 20 years as Finance Director and Company Secretary in the life sciences sector, with experience gained in private and quoted companies. From his time at Price Waterhouse he also has corporate finance experience. He keeps his skill set up to date by attending appropriate courses run by accountancy firms and the ICAEW.

Dr Bruce Campbell
Bruce has 50 years' drug development experience. He has particular expertise in pre-clinical development. Bruce keeps his skill set up to date through his involvement with several other life sciences companies either as a director or consultant.

Dr Flic Gabbay
Flic is an independent non-executive director and Chair of the Remuneration and Nomination Committee, joining the Board in September 2022. She has extensive experience in the life sciences sector including holding several senior and CEO positions in big pharma, biotech and contract research organisations ('CRO') in Europe and North America.

Prof. Sir Stephen Holgate
Stephen is a leading academic in respiratory medicine, combining an outstanding knowledge of base and clinical science. He has experience of working with many pharmaceutical companies and guides the Board on developments in the respiratory sector. Stephen keeps up to date through his ongoing involvement with many industry- and government-related organisations as an advisor.

Amanda Radford
Amanda is an independent non-executive director and Chair of the Audit Committee, joining the Board in December 2022. Amanda has held senior finance roles in a number of public companies and has significant experience in external reporting, financial controls, forecasting and business planning, as well as fundraising and M&A.

All eight members of the Board bring relevant sector experience in life sciences. Four members of the Board have capital markets experience from other companies. The Board has expertise in the following key areas: capital markets; discovery and pre-clinical respiratory projects; clinical development; business development/licensing and finance. The Board believes that its blend of relevant experience, skills and personal qualities and capabilities is sufficient to enable it to successfully execute the current phase of its strategy.

Simon Holden is the Company Secretary. Simon is a corporate lawyer by background and fulfils the role of secretary for several other quoted companies, on the Main Market and AIM. The Company Secretary reports directly to the Chairman on governance matters.

Non-executive directors are required to attend monthly Board meetings ('Scheduled Board meetings') and, where relevant, committee or Scientific Advisory Board meetings. Non-executive directors are required to be available at other times as required for face-to-face and telephone meetings with the executive team. All members of the executive team work for the Company on a full-time basis and have no non-executive directorships with other companies.

The Board continues to note that it does not yet comply with QCA best practice in that three of its non-executive directors have been in post for more than nine years. Nevertheless the Board considers that these directors remain functionally independent, in that they remain fully committed to promoting the success of the Company for the benefit of shareholders as a whole. In line with commitments made towards achieving best practice, Dr Flic Gabbay and Amanda Radford were appointed as independent non-executive directors in September 2022 and December 2022 respectively, with a view to bringing a new perspective to the Board together with their respective expertise in biotech and finance. We will continue to assess the effectiveness of the Board and will continue to identify high-quality independent directors as the Company continues to develop.

The Board puts all directors up for re-election on an annual basis to enable shareholders to confirm their support for the directors and that, in the case of the non-executives, they are considered by shareholders as remaining functionally independent.

The Company does not have a Senior Independent Director, but does have two independent directors (Dr Flic Gabbay and Amanda Radford) which we believe is appropriate at this stage of the Company's development.

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. Scheduled Board meetings take place monthly and the Board also meets on any other occasions it considers necessary. During the year ended 31 December 2022, the Board met eleven times for Scheduled Board meetings and held three unscheduled Board meetings. At each meeting, there was an opportunity for the non-executive directors to discuss matters without the executive directors present.

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 the agenda items to be discussed. Additional information is provided when requested by the Board or individual directors. In addition, the Board has access to the Company's professional advisers as necessary.

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.

Corporate Governance Statement
(continued)

Board performance

A Board evaluation process led by the Chairman last took place in March 2021. It is intended that an evaluation be carried out regularly so the Board can monitor its effectiveness. The process completed in March 2021 identified that the principal areas for the Board to address were succession planning and Board diversity. It was agreed that composition of the Board should reflect a mix of individuals with relevant knowledge, independence, competence, industry experience and diversity of perspectives to generate effective challenge, discussion and objective decision-making.

In 2022, the Company appointed Dr Flic Gabbay and Amanda Radford as independent non-executive directors. The Board believes that with these appointments, it has the necessary blend of skills, experience, personal qualities and capabilities, and a more diverse range of perspectives. The Board will continue to evaluate its performance and seek to address any concerns which are raised.

A review of the Chairman's performance was also carried out in March 2021 by the completion of a questionnaire by other Board members, which concluded that the Chairman was carrying out his duties diligently. It is intended, going forward, that this internal review will be carried out regularly.

Board committees

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

Audit Committee

The Audit Committee currently comprises Amanda Radford (Chair), Bruce Campbell and Simon Shaw. Amanda became the Chair of the committee on her appointment to the Board. Prior to this Theodora Harold fulfilled the role.

The committee has primary responsibility for ensuring that the financial performance of the Group is properly measured and reported on and is compliant with relevant accounting standards. 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.

During 2022, the committee met four times with all members (as then constituted) present. The Audit Committee Report is detailed on pages 27 and 28.

Remuneration and Nomination Committee

The Remuneration and Nomination Committee currently comprises Dr Flic Gabbay (Chair), Dr Bruce Campbell and Simon Shaw. Dr Flic Gabbay became Chair of the committee on her appointment to the Board, Iain Buchanan having previously fulfilled the role. 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 Plans and approves grants under these 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 2022, the committee met twice with all members (as then constituted) present. The Directors' Remuneration Report is detailed on pages 22 to 26.

Scientific Advisory Board

The Company established a Scientific Advisory Board ('SAB') in 2016. The purpose of the SAB is to provide strategic advice and input on scientific aspects of Synairgen's research and development projects.

The SAB currently comprises Dr Phillip Monk (Chair), Dr Bruce Campbell, Dr Flic Gabbay and Synairgen's three academic founders (Professors Sir Stephen Holgate, Donna Davies and Ratko Djukanovic). Other external experts and Synairgen employees attend meetings as required. Dr Bruce Campbell is responsible for feeding back the outputs from the SAB to the Board.

Business model and strategy

As detailed in the Strategic Report on page 4, Synairgen's strategy is to develop SNG001 as a broad-spectrum inhaled antiviral treatment. The key challenges in execution are set out in the section of the Strategic Report entitled Principal risks and uncertainties.

Corporate culture

Our aim is to restore lives with respiratory treatments which treat those most at risk.

We articulate these values and supporting behaviours as follows:

- Together We Pioneer: We pioneer by breaking through barriers, being open and supportive and by accentuating the positive.
- Together We Care: We care in the way we put patients first, by inspiring passion in others and by always being respectful.
- Together We Deliver: We deliver by embracing uncertainty, by "making it happen" and by being the difference we want to see.

These values and behaviours are incorporated into the annual performance review process. Through the company intranet available to the Group's staff and regular internal meetings, we are also focused on finding, sharing and celebrating stories of these values and behaviours in action.

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. For private investors, we conduct interviews via Proactive Investor and maintain dedicated subcontract resource to answer direct queries. 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 shareholders to question the Chairman, the Chairs 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 indicates the level of proxies lodged on each resolution, after it has been dealt with by a show of hands or otherwise via poll. Details of the proxies lodged are also published on the Company's website. Details of the resolutions and explanations thereto are included with the notice.

Internal control and risk management

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 mitigate, 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;
- Regular financial reforecasts;
- 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.

The Group maintains a summary risk register which is reviewed by the Board on an annual basis. The principal risks and uncertainties facing the Group, with mitigation strategies, are set out in the Strategic Report on pages 13 to 15. Project risk management is continually evaluated by weekly project meetings and other management tools. IT risk is covered at bi-annual meetings with external IT advisers. A Health and Safety report is reviewed by the Board annually.

Simon Shaw
Chairman

26 April 2023

Directors' Remuneration Report

In September 2018, the Company adopted the QCA Corporate Governance Code which includes the requirement to prepare a remuneration committee report. This report 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'). The terms of reference of the Committee are outlined in the Corporate Governance Statement on page 20. Iain Buchanan chaired the Committee until he retired from the Board on 1 December 2022, whereupon Dr Flic Gabbay joined the Committee as Chair (who has previously served as a remuneration committee member elsewhere for more than ten years). Dr Bruce Campbell and Simon Shaw are the other members of the Committee.

The Committee, which is required to meet at least twice a year, met twice during the year ended 31 December 2022 and considered the pay of the executive directors and ensured it understood pay arrangements more broadly across the Group. 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 Long-Term Incentive Plan ('LTIP') awards, is performance driven.

Executive remuneration currently comprises a base salary, an annual performance-related bonus, LTIP participation, a 6% pension contribution either to the executive director's individual money purchase scheme or, as a salary supplement (after deducting an amount to reflect employer's NICs to ensure that the overall cost to the employer is not increased) and typical benefits including family private health cover, permanent health and life assurance.

There have been no salary increases for executive directors since the last review in August 2021 (and no increases are anticipated for 2023) and the executive director salaries, bonus and pension arrangements remain as follows:

	Salary per annum (£000)	Maximum bonus as a % of salary	Pension contribution as a % of salary
Richard Marsden	310	100%	6%
Dr Phillip Monk	225	100%	6%
John Ward	225	100%	6%

Executive directors are also rewarded for improvements in the performance of the Group sustained over a period of years in the form of LTIP awards granted on a discretionary basis by the Committee.

Directors' remuneration for the year ended 31 December 2022 is set out on page 26 of this report.

(ii) Chairman and non-executive director remuneration

With effect from 1 October 2022, the fee payable to the Chairman was reduced from £85,000 to £80,000 per annum and the fee payable to non-executive directors reduced from £45,000 to £40,000. The fee for chairing a committee remained at £5,000. Of the on-going £250,000 per annum aggregate remuneration payable to the Chairman and non-executive directors, £200,000 is remuneration for their appointed services and £50,000 is ascribed to special services performed beyond their normal duties on account of the continued increased frequency of Board meetings.

(iii) Annual bonus plan
The Company operates a discretionary bonus scheme for executive directors for delivery of exceptional performance against pre-set relevant corporate objectives, which are subject to malus and clawback provisions within an overall cap of 100% of salary. No bonuses were awarded in respect of 2022.

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

Long-Term Incentive Plan ('LTIP')

The Synairgen LTIP, 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) is the sole 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.

As indicated in last year's report, an LTIP award was made in July 2022 during the six week period following the preliminary announcement of the results for the year ended 31 December 2021. As also noted in last year's report, the Committee recognised the significant fall in share price during 2022 and therefore, consistent with good practice, reduced the number of shares over which the award was issued from the previous level of 100% of salary to 50% for each of Richard Marsden, Phillip Monk and John Ward. The performance conditions for the awards remain in line with previous grants and are set out below.

The Committee intends to make a similar LTIP award (the 2023 award) during the six-week period following the preliminary announcement of the results for the year ended 31 December 2022, with each of Richard Marsden, Phillip Monk and John Ward being granted awards over shares worth up to 50% of salary with vesting and performance conditions similar to the 2022 LTIP award. Recognising the significant fall in share price in 2022, consistent with good practice, the Committee will bear this in mind when determining the number of shares over which the 2023 award should be granted.

Executive directors are expected to retain no fewer than 50% of shares acquired upon vesting of awards under the LTIP, net of shares sold to pay 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 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 2019-2022 LTIP awards

The performance conditions for all four 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:

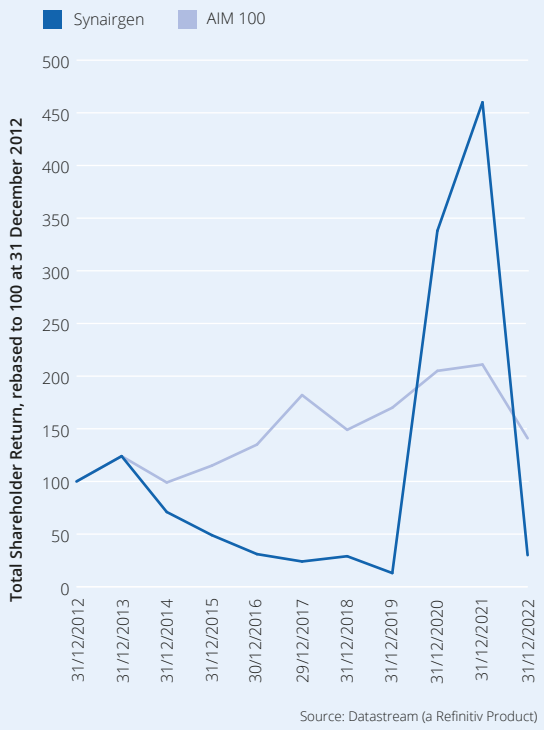
TSR growth over the performance period less percentage increase in the techMARK Mediscience™ Index over the same period	Vesting percentage of total number of shares subject to award
Less than 10%	0%
10%	25%
20%	50%
30%	100%
Performance between the steps	Pro-rata on a straight-line basis

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%.

Directors' Remuneration Report
(continued)

During the year, the 2019 LTIP award vested in full, having met all the performance conditions. The LTIP awards made in 2020, 2021 and 2022 are currently below vesting performance conditions.

TSR Performance
The latest guidelines from the QCA encourage companies to include a chart showing its TSR performance over the preceding 10 years relative to a recognised index. While the Company has principally focused on the techMARK Mediscience™ Index, it does not formally publish a TSR-based index, so the AIM 100 has been used below.



Source: Datastream (a Refinitiv Product)

(v) Service contracts and letters of appointment
The executive directors have entered into service agreements which can be terminated on 12 months' notice by either party in the case of Richard Marsden, and six months' notice by either party in the case of Phillip Monk and John Ward.

During the year ended 31 December 2022, the executive directors did not hold any non-executive directorships with other companies.

The Chairman and non-executive directors have entered into letters of appointment for an initial fixed period of 12 months, which renew automatically for a further 12-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 Plans

Date of grant	At 1 January 2022	Granted during the year	At 31 December 2022	Exercise price	Earliest exercise date	Expiry date
Richard Marsden						
5 April 2018	880,903	–	880,903	1p	5 April 2021	4 April 2028
4 April 2019	772,167	–	772,167	1p	4 April 2022	3 April 2029
18 June 2020	490,817	–	490,817	1p	18 June 2023	17 June 2030
4 June 2021	135,626	–	135,626	1p	4 June 2024	3 June 2031
5 July 2022	–	534,482	534,482	1p	5 July 2025	4 July 2032
Dr Phillip Monk						
5 April 2018	636,208	–	636,208	1p	5 April 2021	4 April 2028
4 April 2019	557,679	–	557,679	1p	4 April 2022	3 April 2029
18 June 2020	354,483	–	354,483	1p	18 June 2023	17 June 2030
4 June 2021	97,953	–	97,953	1p	4 June 2024	3 June 2031
5 July 2022	–	387,931	387,931	1p	5 July 2025	4 July 2032
John Ward						
5 April 2018	685,147	–	685,147	1p	5 April 2021	4 April 2028
4 April 2019	600,575	–	600,575	1p	4 April 2022	3 April 2029
18 June 2020	381,749	–	381,749	1p	18 June 2023	17 June 2030
4 June 2021	105,487	–	105,487	1p	4 June 2024	3 June 2031
5 July 2022	–	387,931	387,931	1p	5 July 2025	4 July 2032

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 2022 was 13.50p. During the year then ended, the mid-market price ranged from 12.35p to 209.00p. On 26 April 2023 the closing price was 12.00p.

Directors' Remuneration Report
(continued)

Directors' remuneration

The remuneration received by directors who served during the years ended 31 December 2022 and 2021 was as follows:

		Year ended 31 December 2022					Year ended 31 December 2021		
	Notes	Salary/fee £000	Benefits £000	Total (excl. pension) £000	Pension (v) £000	Total fixed (incl. pension) £000	Total (excl. pension) £000	Pension £000	Total fixed (incl. pension) £000
Executive directors									
Richard Marsden		**310**	**2**	**312**	**16**	**328**	258	16	274
Dr Phillip Monk		**225**	**2**	**227**	**13**	**240**	187	15	202
John Ward		**225**	**3**	**228**	**12**	**240**	195	12	207
Non-executive directors									
Simon Shaw		**84**	**–**	**84**	**–**	**84**	55	–	55
Iain Buchanan	(i)	**45**	**–**	**45**	**–**	**45**	35	–	35
Dr Bruce Campbell		**44**	**–**	**44**	**–**	**44**	30	–	30
Dr Felicity Gabbay	(ii)	**11**	**–**	**11**	**–**	**11**	–	–	–
Theodora Harold	(iii)	**38**	**–**	**38**	**–**	**38**	13	–	13
Prof. Sir Stephen Holgate		**44**	**–**	**44**	**–**	**44**	30	–	30
Amanda Radford	(iv)	**4**	**–**	**4**	**–**	**4**	–	–	–
Total		**1,030**	**7**	**1,037**	**41**	**1,078**	803	43	846

(i) Iain Buchanan resigned as a non-executive director on 1 December 2022.

(ii) Dr Felicity Gabbay was appointed as a non-executive director on 29 September 2022.

(iii) Theodora Harold was appointed as a non-executive director on 30 September 2021 and resigned on 29 September 2022.

(iv) Amanda Radford was appointed as a non-executive director on 1 December 2022.

(v) The Company permits employees, including executive directors, to change their pension provision through an election under a flexible benefits arrangement. The reported numbers are before any personal elections.

In respect of key management personnel (the three executive directors), for the year ended 31 December 2022, the total share-based payment amounted to £328,000 (2021: £250,000) and total social security costs were a credit of £28,000 (2021: charge £212,000). The 2022 social security costs were a credit on account of the reduction in the LTIP Employer National Insurance accrual because of the fall in share price during 2022.

Total social security costs in respect of the non-executive directors for the year ended 31 December 2022 were £34,000 (2021: £19,000).

On behalf of the Board

Felicity Gabbay
Chair of the Remuneration and Nomination Committee

26 April 2023

Report of the Audit Committee
for the year ended 31 December 2022

Constitution and membership

The Audit Committee (the 'Committee') has primary responsibility for ensuring that the financial performance of the Group is properly measured and reported on and is compliant with relevant accounting standards. It was established in October 2004 and its terms of reference are outlined in the Corporate Governance Statement on page 20.

Committee membership, meetings and attendance

The table below shows the number of meetings attended out of the number of meetings members were eligible to attend.

Director	Attended/eligible to attend
Amanda Radford (Chair from 1 December 2022)	1/1
Simon Shaw	4/4
Bruce Campbell (Member since 1 December 2022)	1/1
Iain Buchanan (Member until 30 November 2022)	3/3
Theodora Harold (Member and Chair until 29 September 2022)	3/3

The Committee members collectively have a wide range of financial, audit and relevant sector and business experience that enables the Committee to provide constructive challenge and support to management. Amanda Radford and Simon Shaw are considered to have recent and relevant financial experience.

Matters covered by the Committee

The Committee, which is required to meet at least twice a year, met four times during the year ended 31 December 2022, and covered the following matters:

- 17 January 2022: planning meeting for the 2021 year-end audit, including agreement of audit scope, materiality, areas of audit focus, audit fees and consideration of auditor independence.
- 19 May 2022: audit completion meeting for the 2021 year-end audit including reviews of: the support for Synairgen plc's investment in Synairgen Research Limited; the financial forecast to support the Group's ability to adopt the going concern basis in the preparation of the 2021 year-end financial statements; the accounting for clinical trial costs; the research and development tax credit; the auditor's report on the audit; and the annual report.
- 26 September 2022: review of the interim results for the six months to 30 June 2022; the adoption of the going concern basis in the preparation of the interim results; the research and development tax credit; and auditor's independent review report.
- 12 December 2022: planning meeting for the 2022 year-end audit, including agreement of audit scope, materiality, areas of audit focus and audit fees; planning for audit partner rotation; review of the company auditor's response to the Financial Reporting Council's (FRC) Audit Quality Review (AQR); a review of new accounting and auditing standards (including International Auditing Standard (ISA) 315 Revised) and confirmation of auditor independence.

Post 31 December 2022, the Committee has met twice:

- 6 April 2023: preliminary review of the auditor's findings in relation to the 2022 year-end audit, review of the adoption of the going concern basis in the preparation of the financial statements for the 2022 year-end; update on the valuation of Synairgen plc's investment in Synairgen Research Limited; the accounting for clinical trial costs and the research and development tax credit; and review of internal controls and assessment of requirement for internal audit.
- 25 April 2023 for the audit completion meeting for the 2022 year-end audit including reviews of: the forecasts and assumptions used to derive the impairment loss in relation to Synairgen plc's investment in Synairgen Research Limited; the auditor's final report on the audit; and the annual report.

BDO, the Company's auditors, were present at all meetings. John Ward, the Group's Chief Financial Officer, was present at all meetings except for when his performance was being discussed by the Committee.

Significant accounting judgements

Impairment review of Synairgen plc's investment in Synairgen Research Limited

The Committee considered management's assessment of the valuation of Synairgen Research Limited ('SRL') as at 31 December 2022 given the fall in the share price of Synairgen plc following the announcement of the results of Synairgen Research Limited's Phase 3 SPRINTER study on 21 February 2022 was a trigger for an impairment review.

Report of the Audit Committee
(continued)

The valuation of SRL includes certain significant judgments, including the likelihood of successful product approval, the costs of reaching approval, revenue forecasts, the estimated useful life of a therapeutic product following commercialisation and the subsequent commercial profitability of the product once approved, together with the pre-tax discount rates applied to the risk-adjusted future cash flows.

The Committee challenged management on the inputs into the valuation model and discussed the appropriateness of management's assumptions and outcome of the impairment review with the Group's auditor.

Following discussion, the Committee agreed with management's impairment calculations which resulted in an impairment loss of £66.2 million and the associated disclosures in the 2022 annual report.

Going concern statement

The Committee considered management's assessment of the Group's available funding and forecast cash requirements for the going concern period to 30 June 2024. Given the stage of development of the Group and lack of recurring revenues, the Committee challenged management on the appropriateness of the assumptions in the cash flow projections in relation to the Group's plans to design and establish data from a focused series of observational studies and investigator-led/Synairgen-sponsored Phase 2 clinical trials. Noting that the outcome of future plans in relation to trials is uncertain, the Committee reviewed management's forecast of committed costs and whether there was sufficient cash available to cover such expenditure for the duration of the going concern period.

The Committee discussed the assumptions and conclusions of the going concern review with the Group's auditor.

The Committee agreed with management's adoption of the going concern basis in the preparation of the annual accounts and approved and recommended the draft Going Concern statement to the Board.

Auditor independence

All non-audit engagements performed by the external auditor are approved by the Committee in accordance with the Company's policy as disclosed in Corporate Governance Principle number 9 on the Group's website.

The Company was compliant with the policy throughout 2022. Non-audit fees incurred during 2022 totalled £16,000, which relates to the review of the interim results for the six months to 30 June 2022.

Internal audit function

The Group does not have an internal audit function, but the Committee considers that this is appropriate, given the size and relative lack of complexity of the Group at this stage in its development. The Committee keeps this matter under review annually.

On behalf of the Board

Amanda Radford
Chair of the Audit Committee

26 April 2023

Directors' Report

The directors present their report and the audited financial statements for Synairgen plc (the 'Company') and its subsidiaries (together the 'Group') for the year ended 31 December 2022.

The review of future developments is covered in the Outlook section of the Strategic Report. Details of directors' remuneration and share options are given in the Directors' Remuneration Report.

Research and development

During the year ended 31 December 2022, the Group has invested £14,936,000 (2021: £52,857,000) in research and development activities and a review of this expenditure is included in the Strategic Report.

Going concern

The directors have prepared financial forecasts to estimate the likely cash requirements of the Group over the period to 30 June 2024, given its stage of development and lack of recurring revenues. In preparing these financial forecasts, the directors have made certain assumptions with regards to the timing and amount of future expenditure over which they have control. The directors have taken a prudent view in preparing these forecasts.

The Group's available resources are sufficient to cover the Group's plans to design and establish data from a focused series of observational studies and investigator-led/Synairgen-sponsored Phase 2 clinical trials, including manufacture of additional active and placebo for use in these trials (details of these plans can be found in the Strategic Report). Regardless of the outcome of these plans, which are uncertain, the Group's available resources are sufficient to cover existing committed costs and the costs of these planned activities until at least 30 June 2024.

In addition, the directors have considered the sensitivity of the financial forecasts to changes in key assumptions, including, among others, potential cost overruns within anticipated spend and changes in exchange rates.

After due consideration of these forecasts and current cash resources, including the sensitivity of key inputs, the directors consider that the Group has adequate financial resources to continue in operational existence for the foreseeable future (being a period of at least 12 months from the date of this report) and, for this reason, the financial statements have been prepared on a going concern basis.

Treasury policy and financial risk management

The Group's treasury and financial risk management policies are set out in note 16 to the financial statements on pages 55 and 56.

Dividends

The directors do not propose the payment of a dividend.

Substantial shareholdings

As at 26 April 2023, the Company had been advised of the following shareholder with an interest of 3% or more in its ordinary share capital:

Name of shareholder	Number of ordinary shares	% of share capital
TFG Asset Management UK LLP	56,696,000	28.2%

Directors

The directors of the Company during the year ended 31 December 2022 were:

Executive directors:
Richard Marsden (Chief Executive Officer)
Dr Phillip Monk (Chief Scientific Officer)
John Ward (Chief Financial Officer)

Non-executive directors:
Simon Shaw (Chairman)
Iain Buchanan (resigned 1 December 2022)
Dr Bruce Campbell
Dr Felicity Gabbay (appointed 29 September 2022)
Theodora Harold (resigned 29 September 2022)
Prof. Sir Stephen Holgate CBE
Amanda Radford (appointed 1 December 2022)

Directors' Report
(continued)

Directors' interests in ordinary shares

The directors, who held office at 31 December 2022, had the following interests in the ordinary shares of the Company:

	At 31 December 2022	At 1 January 2022
	Number of shares	Number of shares
Richard Marsden (i)	**995,771**	995,771
Dr Phillip Monk	**423,934**	423,934
John Ward	**734,092**	734,092
Simon Shaw (ii)	**1,531,239**	1,531,239
Dr Bruce Campbell (iii), (vii)	**331,554**	331,554
Dr Felicity Gabbay (iv)	**–**	–
Prof. Sir Stephen Holgate (v), (vii)	**911,876**	911,876
Amanda Radford (vi)	**–**	–

(i) Richard Marsden's shareholding includes 184,821 shares held in his pension plan.

(ii) Simon Shaw's shareholding includes 105,516 shares held in his pension plan.

(iii) Dr Bruce Campbell's shareholding includes 41,388 shares owned by his wife, Susan Campbell.

(iv) Dr Felicity Gabbay had no shareholding in the Company at her date of appointment (29 September 2022).

(v) Prof. Sir Stephen Holgate's shareholding includes 2,950 shares owned by his wife, Elizabeth Holgate.

(vi) Amanda Radford had no shareholding in the Company at her date of appointment (1 December 2022).

(vii) Dr. Bruce Campbell's and Prof. Sir Stephen Holgate's shareholdings at 1 January 2022 have been re-stated to include their respective subscriptions to the 2020 Open Offer of 8,724 shares (inclusive of 1,089 shares by Mrs Campbell) and 24,945 shares (inclusive of 1,027 shares by Mrs Holgate) which were omitted in error from previous disclosures of shares held.

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 to the date of this report.

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

Simon Holden
Company Secretary

26 April 2023

Statement of Directors' Responsibilities in Respect of the Annual Report and the Financial Statements

The directors are responsible for preparing 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 year. Under that law the directors have elected to prepare the Group financial statements in accordance with UK-adopted international accounting standards 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 AIM.

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 the Group financial statements have been prepared in accordance with UK-adopted international accounting standards and the Company financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law), 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 Group's and Company's transactions and disclose with reasonable accuracy at any time the financial position of the Group and 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 Group and 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 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.

By order of the Board

Simon Holden
Company Secretary

26 April 2023

Independent auditor's report to the members of Synairgen plc

Opinion on the financial statements

In our opinion:

1. the financial statements give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 31 December 2022 and of the Group's loss for the year then ended;
2. the Group financial statements have been properly prepared in accordance with UK adopted international accounting standards;
3. the Parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
4. the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements of Synairgen plc (the 'Parent Company') and its subsidiaries (the 'Group') for the year ended 31 December 2022 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, the Parent Company Statement of Changes in Equity and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in the preparation of the Group financial statements is applicable law and UK adopted international accounting standards. The financial reporting framework that has been applied in the preparation of the Parent Company financial statements is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 101 *Reduced Disclosure Framework* (United Kingdom Generally Accepted Accounting Practice).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remain independent of the Group and the Parent Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard as applied to listed entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the Directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate. Our evaluation of the Directors' assessment of the Group and the Parent Company's ability to continue to adopt the going concern basis of accounting included:

- We considered the Directors' method for assessing going concern, including the relevance and reliability of underlying data used to make the assessment, and whether assumptions and changes to assumptions from prior years are appropriate and where relevant, consistent with each other. The assumptions were assessed against the Group's development plans and committed expenditure.
- We obtained an understanding of the Directors' plans for future actions in relation to the going concern assessment and considered whether such plans are feasible in the circumstances.
- We reviewed the Directors' sensitivity analysis of the forecasts to the extent of reasonable worst-case scenarios, solely in relation to their estimates of planned operational costs which are not fixed.
- We assessed the adequacy and appropriateness of disclosures in the financial statements regarding the going concern assessment.

We carried out the above procedures through using our understanding of the business model, objectives, strategies and related business risk, the measurement and review of the Group's financial performance, forecasting and budgeting processes and the Group's risk assessment process.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Group's and Parent Company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the Directors with respect to going concern are described in the relevant sections of this report.

Overview

Coverage	100% (2021: 100%) of Group loss before tax 100% (2021: 100%) of Group total assets		
Key audit matters		**2022**	**2021**
	Clinical trial and manufacturing cost accounting*	x	✓
	Assessment of carrying value of investments in subsidiaries (parent company)	✓	x
	* The clinical trial was substantially completed in financial year 2021 and therefore does not represent a key audit matter in current financial year.		
Materiality	*Group financial statements as a whole* £800,000 (2021: £2,300,000) based on 4% (2021: 4%) of loss before tax		

An overview of the scope of our audit

Our Group audit was scoped by obtaining an understanding of the Group and its environment, including the Group's system of internal control, and assessing the risks of material misstatement in the financial statements. We also addressed the risk of management override of internal controls, including assessing whether there was evidence of bias by the Directors that may have represented a risk of material misstatement.

The Group's operations are based solely in Southampton, United Kingdom.

Synairgen plc and Synairgen Research Limited were considered significant components and were subject to full-scope audits by the group audit team. The remaining subsidiaries were considered to be non-significant based on their size and risk.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified, including those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit, and directing the efforts of the engagement team. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Independent auditor's report to the members of Synairgen plc
(continued)

Key audit matter		How the scope of our audit addressed the key audit matter
Assessment of carrying value of investments in subsidiaries (parent company) Refer to the accounting policies (page 63) and Note 4 of the Company Financial Statements (pages 66 and 67) Cost of investment £106.4 million (2021: £92.3 million) Impairment provision £66.2 million: (2021: £Nil) Net carrying value £40.2 million (2021: £92.3 million)	The Parent Company is a holding company. Its main investment is into a biopharmaceutical company focused on the development and commercialization of a broad-spectrum inhaled antiviral for the treatment and prevention of severe viral lung infections in high risk patient groups. The impairment assessment of the carrying value of the investment in subsidiary, Synairgen Research Limited, requires significant judgement to determine an appropriate recoverable amount. Judgement is required, as the recoverable amount is determined by taking into account future cash flows in relation to the development and commercialization activities of the subsidiary. There is a risk that the investment may be impaired below its carrying value and not properly accounted for. For these reasons we considered the carrying value of the investment in subsidiary and the related disclosures to be a key audit matter.	Our audit procedures included: • We obtained management's analysis of the recoverable amount for the subsidiary and tested whether the calculation of the recoverable amount was appropriate. • With the assistance of our internal valuation experts, we tested the arithmetic accuracy and integrity of the models used in the valuation by sample-checking formulae, assessed the reasonableness of the discount rates and reviewed the methodology applied versus our expectations. • For the valuation model's key commercial assumptions, such as probability of successful development, market for therapeutic treatment, expected sales price and operating margin, we assessed the reasonability by agreeing management's key assumptions to their supporting evidence such as market research studies, pricing and benchmarking analysis; we challenged whether the supporting analysis is appropriate against available market data and industry benchmarks. • For the valuation model's cashflows up to commercialisation, we assessed and challenged management's cash flow assumptions regarding future development costs necessary to be incurred for the drug candidate to reach a point of commercialisation against available third party benchmark as well as costs previously incurred. • We assessed whether management's approach for assessing impairment of its investments was appropriate, and if the assessment complied with the applicable accounting standards. • We assessed whether the disclosure in the Parent Company financial statements met with the requirements of the financial reporting framework and was consistent with management's assessment. **Key observations** Based on the procedures performed, we consider that the assumptions made by management in their impairment assessment and the related disclosures are reasonable.

Our application of materiality

We apply the concept of materiality both in planning and performing our audit, and in evaluating the effect of misstatements. We consider materiality to be the magnitude by which misstatements, including omissions, could influence the economic decisions of reasonable users that are taken on the basis of the financial statements.

In order to reduce to an appropriately low level the probability that any misstatements exceed materiality, we use a lower materiality level, performance materiality, to determine the extent of testing needed. Importantly, misstatements below these levels will not necessarily be evaluated as immaterial as we also take account of the nature of identified misstatements, and the particular circumstances of their occurrence, when evaluating their effect on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole and performance materiality as follows:

	Group financial statements		Parent Company financial statements	
	2022 £000	2021 £000	2022 £000	2021 £000
Materiality	**800**	2,300	**720**	1,420
Basis for determining materiality	4% (2021: 4%) of loss before tax		90% of Group materiality	62% of Group materiality
Rationale for the benchmark applied	Loss before tax is considered to be one of the principal considerations for the users of the financial statements in assessing the financial performance of the Group.		Capped at 90% (2021: 62%) of Group materiality given the assessment of the components aggregation risk.	
Performance materiality	**600**	1,725	**540**	1,065
Basis and rationale for determining performance materiality	75% of Group materiality considering a number of factors including the expected total value of known and likely misstatements (based on past experience and other factors) and management's attitude towards proposed adjustments.		75% of Parent Company materiality considering a number of factors including the expected total value of known and likely misstatements (based on past experience and other factors) and management's attitude towards proposed adjustments.	

Component materiality

For the purposes of our Group audit opinion, we set materiality for the remaining significant component of the Group – being the trading subsidiary Synairgen Research Limited, apart from the Parent Company whose materiality is set out above. The materiality for this component was set at £790,000 (2021: £2,000,000), based on a percentage of 3.9% of loss before tax (2021: 90% of Group materiality). In the audit of this component, we further applied performance materiality levels of 75% (2021: 75%) of the component materiality to our testing to ensure that the risk of errors exceeding component materiality was appropriately mitigated.

Reporting threshold

We agreed with the Audit Committee that we would report to them all individual audit differences in excess of £24,000 (2021: £46,000). We also agreed to report differences below this threshold that, in our view, warranted reporting on qualitative grounds.

Other information

The directors are responsible for the other information. The other information comprises the information included in the Annual Report and Accounts other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon. Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit, or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Independent auditor's report to the members of Synairgen plc
(continued)

Other Companies Act 2006 reporting

Based on the responsibilities described below and our work performed during the course of the audit, we are required by the Companies Act 2006 and ISAs (UK) to report on certain opinions and matters as described below.

Strategic report and Directors' report	In our opinion, based on the work undertaken in the course of the audit: → 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; and → the Strategic report and the Directors' report have been prepared in accordance with applicable legal requirements. In the light of the knowledge and understanding of the Group and Parent Company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the Directors' report.
Matters on which we are required to report by exception	We have nothing to report in respect of the following matters in relation to which 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 is 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.

Responsibilities of Directors

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, and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Group's and the Parent Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or the Parent Company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Extent to which the audit was capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below:

Non-compliance with laws and regulations

Based on:

→ Our understanding of the Group and the industry in which it operates;

- Discussion with management, those charged with governance and the Audit Committee; and
- Obtaining an understanding of the Group's policies and procedures regarding compliance with laws and regulations,

we considered the significant laws and regulations to be the Companies Act 2006, the applicable accounting standards, Income tax and VAT legislation, Employment Taxes, Health Safety regulations, the Bribery Act 2010, Aim Listing rules and the Data Protection Act 2018.

Our procedures in respect of the above included:

- Examination of minutes of meetings of those charged with governance for any instances of non-compliance with laws and regulations;
- Examination of correspondence with regulatory and tax authorities for any instances of non-compliance with laws and regulations;
- Review of financial statement disclosures and agreeing to supporting documentation;
- Involvement of tax specialists in the audit to assess compliance with relevant tax legislation; and
- Discussions with Directors and the Audit Committee regarding known or suspected instances of non-compliance with laws and regulations.

Fraud

We assessed the susceptibility of the financial statements to material misstatement, including fraud. Our risk assessment procedures included:

- Enquiry with management and those charged with governance regarding any known or suspected instances of fraud;
- Obtaining an understanding of the Group's policies and procedures relating to:
  - Detecting and responding to the risks of fraud; and
  - Internal controls established to mitigate risks related to fraud.
- Examination of minutes of meeting of those charged with governance for any known or suspected instances of fraud;
- Discussion amongst the engagement team as to how and where fraud might occur in the financial statements;
- Performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud; and
- Considering remuneration incentive schemes and performance targets and the related financial statement areas impacted by these.

Based on our risk assessment, we considered the areas most susceptible to fraud to be significant accounting estimates and inappropriate journal entries (management override of controls).

Our procedures in respect of the above included:

- Testing a sample of journal entries throughout the year, which met a defined risk criteria, by agreeing to supporting documentation;
- Involvement of forensic specialists in the audit as part of the planning risk assessment procedures; and
- Assessing significant estimates made by management for bias, including investment valuations (as set out in the key audit matters section of the report), R&D tax credits, valuation of share based payments, and estimates in the cashflow forecast.

We also communicated relevant identified laws and regulations and potential fraud risks to all engagement team members who were all deemed to have appropriate competence and capabilities and remained alert to any indications of fraud or non-compliance with laws and regulations throughout the audit.

Our audit procedures were designed to respond to risks of material misstatement in the financial statements, recognising that the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery, misrepresentations or through collusion. There are inherent limitations in the audit procedures performed and the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely we are to become aware of it.

A further description of our responsibilities is available on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Independent auditor's report to the members of Synairgen plc
(continued)

Use of our report

This report is made solely to the Parent 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 Parent 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 Parent Company and the Parent Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Ian Oliver (Senior Statutory Auditor)
For and on behalf of BDO LLP, Statutory Auditor
Reading
United Kingdom

26 April 2023

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 2022

	Notes	Year ended 31 December 2022 £000	Year ended 31 December 2021 £000
Research and development expenditure		**(14,936)**	(52,857)
Other administrative expenses		**(5,364)**	(5,009)
Total administrative expenses and loss from operations		**(20,300)**	(57,866)
Finance income	6	**207**	11
Finance expense	6	**–**	(2)
Loss before tax		**(20,093)**	(57,857)
Tax	7	**2,448**	9,194
Loss and total comprehensive loss for the period attributable to equity holders of the parent		**(17,645)**	(48,663)
Loss per ordinary share			
Basic and diluted loss per share (pence)	8	**(8.76)p**	(24.28)p

Consolidated Statement of Changes in Equity
for the year ended 31 December 2022

	Share capital £000 18a	Share premium £000 18b	Merger reserve £000 18c	Retained deficit £000 18d	Total £000
At 1 January 2021	1,999	125,245	483	(42,586)	85,141
Loss and total comprehensive loss for the year	–	–	–	(48,663)	(48,663)
Transactions with equity holders of the Group					
Issue of ordinary shares	14	–	–	–	14
Recognition of share-based payments	–	–	–	508	508
	14	–	–	508	522
At 31 December 2021	2,013	125,245	483	(90,741)	37,000
Loss and total comprehensive loss for the year	–	–	–	(17,645)	(17,645)
Transactions with equity holders of the Group					
Issue of ordinary shares	1	–	–	–	1
Recognition of share-based payments	–	–	–	919	919
	1	–	–	919	920
At 31 December 2022	**2,014**	**125,245**	**483**	**(107,467)**	**20,275**

Consolidated Statement of Financial Position
as at 31 December 2022

	Notes	31 December 2022 £000	31 December 2021 £000
Assets			
Non-current assets			
Intangible assets	9	**44**	53
Property, plant and equipment	10	**86**	173
		130	226
Current assets			
Current tax receivable	7	**2,415**	9,055
Trade and other receivables	12	**1,308**	1,530
Other financial assets – bank deposits	13	**3,750**	–
Cash and cash equivalents	14	**15,926**	33,827
		23,399	44,412
Total assets		**23,529**	44,638
Liabilities			
Current liabilities			
Trade and other payables	15	**(3,254)**	(7,638)
Total liabilities		**(3,254)**	(7,638)
Total net assets		**20,275**	37,000
Equity			
Capital and reserves attributable to equity holders of the parent			
Share capital	17	**2,014**	2,013
Share premium	17	**125,245**	125,245
Merger reserve	18	**483**	483
Retained deficit	18	**(107,467)**	(90,741)
Total equity		**20,275**	37,000

The financial statements on pages 39 to 60 were approved and authorised for issue by the Board of directors on 26 April 2023 and signed on its behalf by:

Richard Marsden
Chief Executive Officer

John Ward
Chief Financial Officer

Consolidated Statement of Cash Flows
for the year ended 31 December 2022

	Notes	Year ended 31 December 2022 £000	Year ended 31 December 2021 £000
Cash flows from operating activities			
Loss before tax		**(20,093)**	(57,857)
Adjustments for:			
Finance income		**(207)**	(11)
Finance expense		**–**	2
Lease adjustment		**–**	(4)
Depreciation of property, plant and equipment		**93**	92
Depreciation of right-of-use assets		**–**	94
Amortisation of intangible fixed assets		**9**	9
Share-based payment charge		**919**	508
Cash flows from operations before changes in working capital		**(19,279)**	(57,167)
Decrease in inventories		**–**	41
Decrease in trade and other receivables		**289**	7,841
(Decrease)/Increase in trade and other payables		**(4,384)**	4,359
Cash used in operations		**(23,374)**	(44,926)
Tax credit received		**9,088**	3,910
Net cash used in operating activities		**(14,286)**	(41,016)
Cash flows from investing activities			
Interest received		**140**	12
Purchase of intangible assets		**–**	(18)
Purchase of property, plant and equipment		**(6)**	(15)
Increase in other financial assets		**(3,750)**	–
Net cash used in investing activities		**(3,616)**	(21)
Cash flows from financing activities			
Proceeds from issue of ordinary shares		**1**	14
Principal paid on lease liabilities		**–**	(124)
Interest paid on lease liabilities		**–**	(2)
Net cash generated from/(used in) financing activities		**1**	(112)
Decrease in cash and cash equivalents		**(17,901)**	(41,149)
Cash and cash equivalents at beginning of the year		**33,827**	74,976
Cash and cash equivalents at end of the year	14	**15,926**	33,827

1. Accounting policies

Basis of preparation

The Group financial statements have been prepared in accordance with UK-adopted international accounting standards.

The accounting policies adopted are consistent with those of the previous financial year.

New standards, interpretations and amendments adopted from 1 January 2022

With effect from 1 January 2022, the Group adopted the amendments to existing standards set out below that are effective for an annual period that begins on or after 1 January 2022:

- Annual Improvements to IFRS Standards 2018-2020 (Amendments to IFRS 1, IFRS 9, IFRS 16 and IAS 41)
- Amendments to IAS 16 – Property, Plant and Equipment: Proceeds before intended use
- Amendments to IAS 37 – Onerous Contracts – Cost of Fulfilling a Contract
- Amendments to IFRS 3 – References to Conceptual Framework

The adoption of these amendments has not had a material impact on the disclosures or on the amounts reported in the Group's financial statements.

New standards, interpretations and amendments not yet effective

At the date of approval of these Group financial statements, the Group had not yet applied the following new and revised accounting standards, amendments and interpretations that have been issued by the IASB but that are not yet effective for and in some cases had not yet been adopted by the UK Endorsement Board (UKEB):

Effective 1 January 2023 – adopted by UKEB

- IFRS 17 – Insurance Contracts (including the June 2020 and December 2021 Amendments to IFRS 17)
- Amendments to IAS 1 and IFRS Practice Statement 2 – Disclosure of Accounting Policies
- Amendments to IAS 8 – Definition of Accounting Estimates
- Amendments to IAS 12 – Deferred Tax Related to Assets and Liabilities arising from a Single Transaction

Effective 1 January 2024 – not yet adopted by UKEB

- Amendments to IFRS 16 – Lease Liability in a Sale and Leaseback
- Amendments to IAS 1 – Classification of Liabilities as Current or Non-current

The Group does not expect the adoption of these IFRS amendments would have had a material impact on the Group in the current period or will have a material impact on future reporting periods and on foreseeable future transactions.

The Group financial statements are presented in Sterling.

Going concern

The directors have prepared financial forecasts to estimate the likely cash requirements of the Group over the period to 30 June 2024, given its stage of development and lack of recurring revenues. In preparing these financial forecasts, the directors have made certain assumptions with regards to the timing and amount of future expenditure over which they have control. The directors have taken a prudent view in preparing these forecasts.

The Group's available resources are sufficient to cover the Group's plans to design and establish data from a focused series of observational studies and investigator-led/Synairgen-sponsored Phase 2 clinical trials, including manufacture of additional active and placebo for use in these trials (details of these plans can be found in the Strategic Report). Regardless of the outcome of these plans, which are uncertain, the Group's available resources are sufficient to cover existing committed costs and the costs of these planned activities until at least 30 June 2024.

In addition, the directors have considered the sensitivity of the financial forecasts to changes in key assumptions, including, among others, potential cost overruns within anticipated spend and changes in exchange rates.

After due consideration of these forecasts and current cash resources, including the sensitivity of key inputs, the directors consider that the Group has adequate financial resources to continue in operational existence for the foreseeable future (being a period of at least 12 months from the date of this report) and, for this reason, the financial statements have been prepared on a going concern basis.

1. Accounting policies (continued)

Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company (as detailed in note 4 to the Parent Company Financial Statements on page 67) made up to the reporting date. All intra-group transactions, balances, income and expenses are eliminated on consolidation. The formation of the Group arose from merger accounting and as the business combination took place prior to 1 July 2006, the date of transition to IFRS, the transaction has not been restated as permitted by IFRS 1 "First-time Adoption of International Financial Reporting".

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 personal defined contribution pension schemes are charged to the consolidated statement of comprehensive income on an accruals basis.

Share-based payments

Where equity-settled share options are awarded to employees, the fair value of the options at the date of grant is charged to the consolidated statement of comprehensive income over the vesting period. Non-market vesting conditions are taken into account by adjusting the number of equity instruments expected to vest at each reporting date so that, ultimately, the cumulative amount recognised over the vesting period is based on the number of options that eventually vest. Non-vesting conditions and market vesting conditions are factored into the fair value of the options granted. As long as all other vesting conditions are satisfied, a charge is made irrespective of whether the market vesting conditions are satisfied. The cumulative expense is not adjusted for failure to achieve a market vesting condition.

Where vested share options are exercised by the participants but settled by the Company net of shares withheld to meet the participant's tax and National Insurance contribution liabilities ('net settlement'), the payment to meet such tax and National Insurance contribution liabilities is treated as a deduction to equity to the extent that the payment equates to the settlement date fair value of the shares withheld, and in the consolidated statement of cash flows is included within cash flows from financing activities.

Intangible assets

Intangible assets are stated at cost less any accumulated amortisation and any accumulated impairment losses. Patent 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

Raw materials inventory purchased and associated processing/manufacturing costs, related to therapeutics produced for clinical trial purposes or commercial use ahead of regulatory approval, are expensed as incurred through research and development expenditure.

Where inventory manufacturers invoice in advance of the manufacturing activities, the invoice is recorded as a prepayment within trade and other receivables.

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.

Financial assets
The Group classifies its financial assets as financial assets held at amortised cost.

The Group's financial assets measured at amortised cost principally comprise other financial assets and cash and cash equivalents in the consolidated statement of financial position. Other financial assets are fixed-term, liquid investments with maturities of over three months at inception. Cash and cash equivalents includes cash in hand, deposits held at call with banks and other short-term highly liquid investments with original maturities of three months or less. These financial assets 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.

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

Leases

All leases are accounted for by recognising a right-of-use asset and a lease liability except for leases of low value assets and leases with a duration of 12 months or less.

Lease liabilities are measured at the present value of the contractual payments due to the lessor over the lease term, with the discount rate determined by reference to the rate inherent in the lease unless (as is typically the case) this is not readily determinable, in which case the Group's incremental borrowing rate on commencement of the lease is used. Variable lease payments are only included in the measurement of the lease liability if they depend on an index or rate. In such cases, the initial measurement of the lease liability assumes the variable element will remain unchanged throughout the lease term. Other variable lease payments are expensed in the period to which they relate.

On initial recognition, the carrying value of the lease liability also includes: amounts expected to be payable under any residual value guarantee; the exercise price of any purchase option granted in favour of the Group if it is reasonably certain to exercise that option; and any penalties payable for terminating the lease, if the term of the lease has been estimated on the basis of a termination option being exercised.

Right-of-use assets are initially measured at the amount of the lease liability, reduced for any lease incentives received, and increased for: lease payments made at or before commencement of the lease; initial direct costs incurred; and the amount of any provision recognised where the Group is contractually required to dismantle, remove or restore the leased asset.

Subsequent to initial measurement, lease liabilities increase as a result of interest charged at a constant rate on the balance outstanding and are reduced for lease payments made. Right-of-use assets are amortised on a straight-line basis over the remaining term of the lease or over the remaining economic life of the asset if, rarely, this is judged to be shorter than the lease term.

For contracts that both convey a right to the Group to use an identified asset and require services to be provided to the Group by the lessor, the Group has elected to account for the entire contract as a lease, i.e. it does not allocate any amount of the contractual payments to, and account separately for, any services provided by the supplier as part of the contract.

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 current tax receivable under current assets in the year to which they relate and are reflected in the tax line of the consolidated statement of comprehensive income.

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 nor taxable profit.

1. Accounting policies (continued)

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.

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.

The directors consider that the research and development tax credit recognised, which amounts to £2,448,000 (2021: £9,194,000), is a critical accounting estimate on account of its size and the judgements involved in determining which elements of expenditure qualify to be included in the credit.

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.

4. Loss from operations

The loss from operations has been arrived at after charging:

	2022 £000	2021 £000
Depreciation of property, plant and equipment	**93**	92
Depreciation of right-of-use assets	**–**	94
Amortisation of intangible assets	**9**	9
Operating lease rentals payable (out of IFRS 16 scope):		
Land and buildings	**75**	31
Other operating lease rentals	**93**	39

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

	2022 £000	2021 £000
Fees payable to the Company's auditor for the audit of the Group and Company financial statements	**56**	40
Fees payable to the Company's auditor for other services:		
The audit of the Company's UK subsidiary, pursuant to legislation	**38**	26
Audit-related assurance services	**16**	8
Tax compliance services	**–**	65
Tax advisory services	**–**	187
Company secretarial services	**–**	6
Total fees	**110**	332

5. Employee benefit expense

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

	2022	2021
Research	**19**	15
Administration	**11**	9
	30	24

Their aggregate remuneration comprised:

	Note	2022 £000	2021 £000
Wages and salaries		**2,649**	1,725
Social security costs	(i)	**151**	413
Pension costs – defined contribution plans	(ii)	**309**	196
Total cash-settled remuneration		**3,109**	2,334
Accrued holiday pay		**–**	18
Share-based payment	(iii)	**919**	508
Total remuneration		**4,028**	2,860

Note

(i) Social security costs credit for 2022 comprises (a) a credit in respect of the Employer National Insurance accrual for LTIPs of £206,000 on account of the fall in share price year on year (2021: charge £186,000); and (b) a charge in respect of wages, salaries and other benefits of £357,000 (2021: charge £227,000).

(ii) This includes cash payments in lieu of pension plan contributions.

(iii) For the purpose of presentation in the consolidated statement of comprehensive income, remuneration costs of £2,156,000 (2021: £1,458,000) are included in research and development expenditure and £1,872,000 (2021: £1,402,000) 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. The following costs were incurred in respect of key management personnel (i.e. the three executive directors):

	Note	2022 £000	2021 £000
Salaries		**749**	621
Benefits		**7**	7
Pension costs – defined contribution plans	(i)	**53**	53
Share-based payment		**328**	250

(i) This includes payments in lieu of pension plan contributions.

The total gain on excercise of share options was £nil (2021: £1,984,000).

Emoluments of highest paid director

Emoluments for the highest paid director were £328,000 (2021: £274,000).

Further information about the remuneration of individual directors is provided in the Directors' Remuneration Report on page 26.

6. Finance income and expense

Finance income represents bank interest receivable.

Finance expense represents interest expense on lease liabilities.

7. Taxation

Current tax

	2022 £000	2021 £000
UK corporation tax credit on loss for the year	**(2,415)**	(9,055)
Adjustment in respect of prior years	**(33)**	(139)
Total income tax credit	**(2,448)**	(9,194)

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 19% (2021: 19%). The differences are reconciled below:

	2022 £000	2021 £000
Loss on ordinary activities before tax	**(20,093)**	(57,857)
Loss on ordinary activities before tax multiplied by the standard rate of corporation tax in the UK	**(3,818)**	(10,993)
Effects of:		
Expenses not deductible for tax purposes	**176**	97
Enhanced research and development relief	**(1,758)**	(6,707)
Variable rates on tax losses surrendered for research and development tax credit	**737**	2,810
R&D expenditure credits	**10**	-
Research and Development Expenditure Credit (RDEC)	**(41)**	-
Movement in unrecognised deferred tax	**2,279**	5,738
Adjustment in respect of previous years	**(33)**	(139)
Total tax credit for the current year	**(2,448)**	(9,194)

The UK Budget Announcement on 15 March 2023 stated an intended overhaul of the UK R&D regime. This includes a decrease in the additional deduction for SMEs' qualifying expenditure from 130% to 86% and a decrease for loss-making SMEs in the research and development tax credit from 14.5% to 10% unless the claimant is a qualifying R&D intensive SME. This will have a consequential effect on the Group's future tax credits.

Deferred taxation

Changes in tax rates and factors affecting the future tax charge

An increase in the UK corporation tax rate from 19% to 25% (effective 1 April 2023) was substantively enacted on 24 May 2021. This will increase the Group's future current tax charge accordingly. The deferred tax at 31 December 2022 has been calculated at 25%.

7. Taxation (continued)

Recognised deferred taxation

	2022 £000	2021 £000
Accelerated capital allowances	**21**	43
Other temporary differences	**(6)**	(43)
Trading losses	**(15)**	–
Charge for the year	**–**	**–**

Unrecognised deferred taxation

At 31 December 2022 the Group has trading losses carried forward which are available for offset against future profits of the Group amounting to £66,005,000 (2021: £54,490,000) and non-trading losses of £3,908,000 (2021: £3,456,000). At 31 December 2022 the Group has an unrecognised deferred tax asset in respect of these losses of £17,478,000 (2021: £14,486,000). 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 £1,062,000 (2021: £13,078,000) and a deferred tax asset of £266,000 (2021: £3,270,000) 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:

	2022 £000	2021 £000
Unrecognised deferred tax asset at the start of the year	**(17,756)**	(6,844)
Change in tax rate	**–**	(2,161)
Movement in the year	**12**	(8,751)
Unrecognised deferred tax asset at the end of the year	**(17,744)**	(17,756)

8. Loss per ordinary share

	2022	2021
Loss attributable to ordinary equity holders of the parent company (£000)	**(17,645)**	(48,663)
Weighted average number of ordinary shares in issue (000)	**201,360**	200,442
Basic and diluted loss per share (pence)	**(8.76)**	(24.28)

Basic loss per share is calculated by dividing the loss attributable to ordinary equity holders of the parent company by the weighted average number of ordinary shares in issue during the year.

The loss attributable to ordinary shareholders and weighted average number of ordinary shares for the purpose of calculating the diluted earnings per ordinary share are identical to those used for basic loss per share. This is because the exercise of share options would have the effect of reducing the loss per ordinary share and is therefore antidilutive under the terms of IAS 33.

9. Intangible assets

	Patent costs £000
Cost	
At 1 January 2021	249
Additions	18
At 31 December 2021 and 2022	**267**
Amortisation	
At 1 January 2021	205
Charge for the year	9
At 31 December 2021	214
Charge for the year	9
At 31 December 2022	**223**
Net book amount	
At 31 December 2022	**44**
At 31 December 2021	53
At 1 January 2021	44

At 31 December 2022 £44,000 (31 December 2021: £53,000) of the net book amount relates to interferon beta patent costs.

10. Property, plant and equipment

	Computer equipment £000	Laboratory and clinical equipment £000	Total £000
Cost			
At 1 January 2021	59	554	613
Additions	15	–	15
At 31 December 2021	74	554	628
Additions	4	2	6
At 31 December 2022	**78**	**556**	**634**
Depreciation			
At 1 January 2021	47	316	363
Charge for the year	9	83	92
At 31 December 2021	56	399	455
Charge for the year	10	83	93
At 31 December 2022	**66**	**482**	**548**
Net book value			
At 31 December 2022	**12**	**74**	**86**
At 31 December 2021	18	155	173
At 1 January 2021	12	238	250

11. Leases

During the comparative year ended 31 December 2021, the Group had one lease with its landlord, the University of Southampton, which provided the Group with office space and access to laboratory equipment. A two-year lease was entered into with effect from 1 August 2019. From 1 August 2021 the Group has continued to make payments on the same basis pending renegotiation of the lease. Costs since 1 August 2021 are accounted for as a short-term lease, applying paragraph 6 of IFRS 16 (i.e. by not recognising a lease liability and corresponding right-of-use asset).

For the two-year lease discussed above, the lease liability was measured at the present value of the contractual payments due to the lessor over the lease term using a discount rate of 5%, which was an estimate of the discount rate applicable to a property lease.

Right-of-use assets	Land and buildings £000	Plant and machinery £000	Total £000
At 1 January 2021	47	47	94
Depreciation	(47)	(47)	(94)
At 31 December 2021	–	–	–

Lease liabilities	Land and buildings £000	Plant and machinery £000	Total £000
At 1 January 2021	64	64	128
Interest expense related to lease liabilities	1	1	2
Lease adjustment	(2)	(2)	(4)
Lease payments	(63)	(63)	(126)
At 31 December 2021	–	–	–

Analysis of lease expense	2022 £000	2021 £000
Depreciation of right-of-use assets		
Land and buildings	–	47
Plant and machinery	–	47
Lease adjustments	–	(4)
Short-term lease expense	168	70
Charge to operating loss	168	160
Interest expense related to lease liabilities	–	2
Charge to loss before taxation for leases	168	162

12. Trade and other receivables

	2022 £000	2021 £000
Amounts receivable within one year:		
Other tax and social security	231	556
Prepayments and interest receivable	1,073	974
Other debtors	4	–
	1,308	1,530

13. Other financial assets – bank deposits

	2022 £000	2021 £000
Amounts receivable within one year		
Sterling fixed rate deposits of greater than three months' maturity at inception	**3,750**	–

14. Cash and cash equivalents

	Note	2022 £000	2021 £000
Cash at bank and in hand	(i)	**11,176**	33,827
Sterling fixed rate deposits of three months' or less maturity at inception		**4,750**	–
		15,926	33,827

(i) At 31 December 2021, £5,004,000 was on 35 days' notice.

15. Trade and other payables

	2022 £000	2021 £000
Trade payables	**548**	4,157
Social security and other taxes	**206**	410
Accrued expenses	**2,500**	3,071
	3,254	7,638

16. Financial instruments

	Notes	2022 Book and fair value £000	2021 Book and fair value £000
Financial assets			
Amortised cost			
Trade and other receivables	(i)	**71**	–
Other financial assets – bank deposits (less than one year)		**3,750**	–
Cash and cash equivalents (less than one year)		**15,926**	33,827
Total		**19,747**	33,827
Financial liabilities			
Other financial liabilities			
Trade and other payables (less than one year)	(ii)	**3,048**	7,228
Total		**3,048**	7,228

(i) Trade and other receivables shown above excludes prepayments and other taxes, which are not a contractual right to receive cash, amounting to £1,237,000 (2021: £1,530,000).

(ii) Trade and other payables shown above excludes amounts due in respect of social security and other taxes, which are not a contractual obligation to pay cash, amounting to £206,000 (2021: £410,000).

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, credit risk and currency risk.

Interest rate risk

The Group's deposit balances are subject to the risk of fluctuating base rates. Interest rate risk profile of financial assets, excluding short-term debtors:

	Floating rate £000	Fixed rate £000	2022 Total £000	Floating rate £000	Fixed rate £000	2021 Total £000
Euro	**11**	**–**	**11**	816	–	816
Sterling	**11,147**	**8,500**	**19,647**	30,020	–	30,020
US Dollar	**18**	**–**	**18**	2,991	–	2,991
	11,176	**8,500**	**19,676**	33,827	–	33,827

Sensitivity analysis

It is estimated that an increase of a quarter of one percentage point in interest rates would have decreased the Group's loss before taxation by approximately £56,000 (2021: £126,000).

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 2022 and 31 December 2021 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.

16. Financial instruments (continued)

Credit risk
The Group's credit risk is attributable to its banking deposits. The Group follows a risk-averse policy of treasury management. Sterling deposits are held with one or more approved UK-based financial institutions (HSBC UK Bank plc and National Westminster Bank Plc, which at 31 December 2022 had good short-term credit ratings, being at least F1 for Fitch, P-1 for Moody's and A-1 for Standard and Poor's) and in the Institutional Cash Series plc Institutional Sterling Liquidity Fund managed by BlackRock Investment Management (UK) Limited (rated at 31 December 2022 as AAAmmf by Fitch, Aaa-mf by Moody's and AAAm by Standard and Poor's). The Group's primary treasury objective is to minimise exposure to potential capital losses while at the same time securing prevailing market rates. The Group seeks to lessen risk by placing its cash deposits with the three above institutions.

Currency risk
During the year under review, the Group was exposed to Euro and US Dollar currency movement as some of the manufacturing costs and clinical trial costs are denominated in these currencies. To naturally hedge against currency movement, the Group purchases these currencies in advance of payment due dates.

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 2022 amounted to £20.3 million (2021: £37.0 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 2022 amounted to £19.7 million and comprised short-term deposits (with original maturities of greater than three months and less than one year) and cash and cash equivalents as shown below:

					31 December
	2022 £m	2021 £m	2020 £m	2019 £m	2018 £m
Short-term deposits	**3.8**	–	–	–	–
Cash and cash equivalents	**15.9**	33.8	75.0	2.5	5.3
Net funds	**19.7**	33.8	75.0	2.5	5.3

The Group did not have any bank borrowings as at 31 December 2022 (2021: £nil).

There have been ten significant issues of shares raising a total (net of costs) of £127.6 million, with the most recent two raising £97.9 million in March and October 2020. The other major sources of funding received by the Group from the formation of the business until 31 December 2022 have been: revenues from licensing transactions of £9.3 million, research and development tax credits of £18.5 million, bank interest of £2.0 million, and revenues from collaborative work of £0.8 million.

17. Share capital, share premium and share-based payment

	Notes	Number of shares	Ordinary shares of 1p each £000	Share Premium £000	Total £000
At 1 January 2021		199,914,402	1,999	125,245	127,244
Issue of ordinary shares	(i)	1,427,423	14	–	14
At 31 December 2021		201,341,825	2,013	125,245	127,258
Issue of ordinary shares	(ii)	33,150	1	–	1
At 31 December 2022		**201,374,975**	**2,014**	**125,245**	**127,259**

(i) 1,427,423 ordinary shares of 1p were issued on 19 August 2021 at par following the exercise of share options under the Company's LTIP.

(ii) 33,150 ordinary shares of 1p were issued on 16 June 2022 at par following the exercise of share options under the Company's LTIP.

At the Company's 2015 Annual General Meeting held on 22 June 2015 shareholders passed a special resolution removing the restriction on the Company's share capital and amending the articles of association of the Company so that the number of shares the Company can allot and issue became unlimited.

All issued shares are fully paid.

17. Share capital, share premium and share-based payment (continued)

Options

At 31 December 2022 there were options outstanding over 14,450,882 un-issued ordinary shares, equivalent to 7.2% of the issued share capital, as follows:

Date of grant	Number of shares	Exercise price	Earliest exercise date	Latest exercise date
5 April 2018 (LTIP)	2,822,316	1p	5 Apr 2021	4 Apr 2028
4 April 2019 (LTIP) (i)	2,598,996	1p	4 Apr 2022	3 Apr 2029
18 June 2020 (LTIP) (ii)	1,756,722	1p	18 Jun 2023	17 Jun 2030
4 June 2021 (LTIP) (ii)	705,890	1p	4 Jun 2024	3 Jun 2031
4 June 2021 (LTIP) (iii)	117,647	1p	4 Jun 2022	3 Jun 2031
20 October 2021 (LTIP) (ii)	384,673	1p	20 Oct 2024	19 Oct 2031
13 December 2021 (LTIP) (ii)	54,059	1p	13 Dec 2024	12 Dec 2031
5 July 2022 (LTIP) (ii)	6,010,579	1p	5 July 2025	4 July 2032
	14,450,882			

Notes

(i) These options vested in full during the year.

(ii) The vesting performance conditions for these options are detailed in the Directors' Remuneration Report on page 23.

(iii) The vesting performance conditions for these options are outlined in the note (ii) to the table below.

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:

	2022 Number	2022 Weighted average exercise price	2021 Number	2021 Weighted average exercise price
Outstanding at start of year	**8,517,282**	**1p**	8,671,279	1p
Granted during the year	**6,407,130**	**1p**	1,314,286	1p
Exercised during the year	**(33,150)**	**1p**	(1,427,423)	1p
Lapsed during the year	**(440,380)**	**1p**	(40,860)	1p
Number of outstanding options at end of year	**14,450,882**	**1p**	8,517,282	1p

At 31 December 2022, 5,421,312 share options were capable of being exercised, with an exercise price of 1p (2021: 2,822,316, with an exercise price of 1p). The options outstanding at 31 December 2022 had a weighted average remaining contractual life of 7.8 years (2021: 7.5 years). Vesting conditions are disclosed in the Directors' Remuneration Report and in note (ii) to the following table.

The Group uses a number of share-based incentive schemes as detailed above and in the Directors' Remuneration Report on pages 23 and 24. The fair value per award granted and the assumptions 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
5 Apr 2018	LTIP (i)	2,822,316	1p	13.0p	7.5p	3	0.90%	56%	Market
4 Apr 2019	LTIP (i)	2,598,996	1p	12.5p	6.2p	3	0.70%	59%	Market
18 Jun 2020	LTIP (i)	1,756,722	1p	39.5p	25.8p	3	0.00%	80%	Market
4 Jun 2021	LTIP (i)	705,890	1p	160.1p	138.4p	3	0.14%	133%	Market
4 Jun 2021	LTIP (ii)	117,647	1p	160.1p	159.2p	3	0.14%	133%	Non-market
20 Oct 2021	LTIP (i)	384,673	1p	167.0p	149.2p	3	0.64%	142%	Market
13 Dec 2021	LTIP (i)	54,059	1p	190.0p	168.5p	3	0.32%	146%	Market
5 Jul 2022	LTIP (i)	6,010,579	1p	29.0p	26.1p	3	1.64%	177%	Market
		14,450,882							

The Group has applied IFRS 2 to all the above share-based payments and the following comments apply to these options:

(i) Stochastic valuation methodology was used for these awards.

(ii) Black-Scholes valuation methodology was used for this award, which vests upon the achievement of future commercial revenue targets. At 31 December 2022, £nil has been accrued for this non-market option, in line with our latest assumption that this grant will not vest.

(iii) 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.

(iv) 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.

(v) Volatility for the grants made in 2018 and 2019 was calculated by reviewing share price movement over the period of three years prior to grant, excluding any large share price movements (as these were not considered to be representative of future expectations of volatility). Volatility for the grants made in 2020, 2021 and 2022 were calculated by reviewing share price movement over the period of three years prior to grant with no adjustments.

(vi) The charge for the year ended 31 December 2022 for share-based payment amounted to £919,000 (2021: £508,000).

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

Details of key management personnel and their compensation are given in note 5 and on page 26 of the Directors' Remuneration Report. A list of the Company's subsidiaries is shown in note 4 to the Parent Company Financial Statements.

20. Other commitments

At 31 December 2022 the Group had entered into non-cancellable purchase commitments amounting to £0.7 million (2021: £3.3 million) in respect of manufacturing-related activities.

Parent Company Balance Sheet
as at 31 December 2022

Company number: 5233429

	Notes	31 December 2022 £000	31 December 2021 £000
Fixed assets			
Investments	4	**40,200**	92,262
Current assets			
Debtors	5	**326**	135
Investments: short-term deposits		**3,750**	–
Cash and cash equivalents	6	**15,862**	33,447
		19,938	33,582
Creditors: amounts falling due within one year	7	**(123)**	(127)
Net current assets		**19,815**	33,455
Total assets less current liabilities		**60,015**	125,717
Capital and reserves			
Called up share capital		**2,014**	2,013
Share premium account		**125,245**	125,245
Retained deficit		**(67,244)**	(1,541)
Shareholders' funds		**60,015**	125,717

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 Company's loss for the year ended 31 December 2022 was £66,622,000 (2021: loss of £608,000).

The financial statements on pages 61 to 68 were approved and authorised for issue by the Board of directors on 26 April 2023 and signed on its behalf by:

Richard Marsden
Chief Executive Officer

John Ward
Chief Financial Officer

Parent Company Statement of Changes in Equity
for the year ended 31 December 2022

	Share capital £000	Share premium account £000	Retained deficit £000	Shareholders' funds £000
At 1 January 2021	1,999	125,245	(1,441)	125,803
Loss for the year and total comprehensive loss	–	–	(608)	(608)
Transactions with equity holders of the Company				
Issue of ordinary shares	14	–	–	14
Share-based payment credit	–	–	508	508
	14	–	508	522
At 31 December 2021	2,013	125,245	(1,541)	125,717
Loss for the year and total comprehensive loss	–	–	(66,622)	(66,622)
Transactions with equity holders of the Company				
Issue of ordinary shares	1	–	–	1
Share-based payment credit	–	–	919	919
	1	–	919	920
At 31 December 2022	**2,014**	**125,245**	**(67,244)**	**60,015**

Notes to the Parent Company Financial Statements
for the year ended 31 December 2022

1. Accounting policies

Basis of preparation
The financial statements have been prepared in accordance with Financial Reporting Standard 101 Reduced Disclosure Framework ('FRS 101').

Disclosure exemptions adopted
In preparing these financial statements the Company has taken advantage of all disclosure exemptions conferred by FRS 101. Therefore these financial statements do not include:

- certain comparative information as otherwise required by UK-adopted international accounting standards;
- certain disclosures regarding the Company's capital;
- a statement of cash flows;
- the effect of future accounting standards not yet adopted;
- the disclosure of the remuneration of key management personnel; and
- disclosures of related party transactions with other wholly-owned members of the Synairgen plc group of companies.

In addition, and in accordance with FRS 101, further disclosure exemptions have been adopted because equivalent disclosures are included in the Company's consolidated financial statements. These financial statements do not include certain disclosures in respect of:

- share-based payments; or
- financial instruments.

Going Concern
The directors have prepared financial forecasts to estimate the likely cash requirements over the period to 30 June 2024 of the Company and its subsidiaries, to which the Company has confirmed its intention to provide financial support for a period of not less than 12 months from the date that its financial statements for the year ended 31 December 2022 are signed, given their stage of development and lack of recurring revenues.

In preparing these financial forecasts, the directors have made certain assumptions with regards to the timing and amount of future expenditure over which they have control. The directors have taken a prudent view in preparing these forecasts.

The Company's available resources are sufficient to cover the Group's plans to design and establish data from a focused series of observational studies and investigator-led/Synairgen-sponsored Phase 2 clinical trials, including manufacture of additional active and placebo for these trials (details of these plans can be found in the Strategic Report). Regardless of the outcome of these plans, which are uncertain, the Group's available resources are sufficient to cover existing committed costs and the costs of these planned activities until at least 30 June 2024.

In addition, the directors have considered the sensitivity of the financial forecasts to changes in key assumptions, including, among others, potential cost overruns within anticipated spend and changes in exchange rates.

After due consideration of these forecasts and current cash resources, including the sensitivity of key inputs, the directors consider that the Company has adequate financial resources to continue in operational existence for the foreseeable future (being a period of at least 12 months from the date of this report) and, for this reason, the financial statements have been prepared on a going concern basis.

Principal accounting policies
The principal accounting policies adopted in the preparation of the financial statements are set out below. The policies have been consistently applied to all the years presented.

Investments in subsidiary undertakings
Investments in subsidiary undertakings where the Company has control are stated at cost less any provision for impairment.

An assessment is made in respect of indicators of impairment in the carrying value of the Company's investment in subsidiaries as at the year-end. If such an indication exists, the recoverable amount of the asset, being the higher of the asset's fair value less costs to sell and value in use, is compared to the asset's carrying value. Any excess of the asset's carrying value over its recoverable amount is expensed to the income statement.

Financial instruments
Financial assets and financial liabilities are recognised on the Company's balance sheet when the Company becomes a party to the contractual provisions of the instrument.

1. Accounting policies (continued)

Financial assets
The Company classifies its financial assets as financial assets held at amortised cost.

These assets incorporate types of financial assets where the objective is to hold these assets in order to collect contractual cash flows and the contractual cash flows are solely payments of principal and interest. 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.

The Company's financial assets measured at amortised cost comprise debtors, investments: short-term deposits and cash and cash equivalents in the balance sheet. Investments: short-term deposits are fixed-term, liquid investments with maturities of over three months at inception. Cash and cash equivalents includes cash in hand, deposits held at call with banks and other short-term highly liquid investments with original maturities of three months or less.

Financial liabilities
The Company classifies its financial liabilities as financial liabilities held at amortised cost. Trade creditors are initially recognised at fair value and subsequently carried at amortised cost using the effective interest rate method.

Share-based payments

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

Current tax is the amount of income tax payable or receivable on the profit or loss for the year or prior years 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.

Share capital

The Company's ordinary shares are classified as equity instruments. Financial instruments issued by the Company are classified as equity only to the extent that they do not meet the definition of a financial liability or financial asset.

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.

A key area of estimation uncertainty that has the most significant effect on the amounts recognised in the financial statements are the assumptions when determining the impairment of investment carrying values. Refer to Note 4 – Investments, for details.

The Company holds a significant investment in its subsidiary, Synairgen Research Limited, of £40.2 million (2021: £92.3 million).

An assessment was made in respect of indicators of impairment in the carrying value of the Company's investments in subsidiaries as at 31 December 2022. If such an indication exists, the recoverable amount of the asset, being the higher of the asset's fair value less costs to sell and value in use, is compared to the asset's carrying value. Any excess of the asset's carrying value over its recoverable amount is expensed to the income statement. The assessment of the recoverable amount of investments in subsidiaries involves a number of significant judgements regarding the likelihood of successful product approval, the costs of reaching approval, the estimated useful life of a therapeutic product following commercialisation and the subsequent commercial profitability of the product once approved.

At 31 December 2021, the directors considered indicators of impairment by reference to Synairgen Research Limited's fair value less costs to sell, *inter alia*, by reference to the AIM market capitalisation of the Group (since all Group intellectual property is owned by Synairgen Research Limited) at that date of £419 million and no impairment indicator was identified.

3. Profit and loss account

The only employees of the Company during 2022 and 2021 were the three executive directors. Their aggregate remuneration, which is borne by the Company's subsidiary undertaking Synairgen Research Limited, comprised:

	Notes	2022 £000	2021 £000
Wages and salaries		**749**	621
Social security costs	(i)	**(28)**	210
Pension costs – defined contribution plans	(ii)	**53**	53
Total cash-settled remuneration		**774**	884
Accrued holiday pay		**(3)**	(4)
Share-based payment		**328**	250
Total remuneration		**1,099**	1,130

(i) The Social security credit for 2022 comprises (a) a credit in respect of the Employer National Insurance accrual for LTIPs of £136,000 (2021: charge £123,000); and (b) a charge in respect of wages, salaries and other benefits of £108,000 (2021: charge £87,000).

(ii) This includes cash payments in lieu of pension plan contributions.

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 note 5 to the Group accounts on page 48.

Auditor's remuneration is disclosed in note 4 to the Group accounts on page 47.

4. Investments

	Investment in subsidiary undertakings £000	Capital contribution £000	Total £000
At 1 January 2022	140	92,122	92,262
Capital contribution for the year	–	13,188	13,188
Subsidiary share-based payment	–	919	919
Impairment (i)	–	(66,169)	(66,169)
At 31 December 2022	**140**	**40,060**	**40,200**

(i) There was no impairment at 1 January 2022.

The Company performed an assessment of the recoverable amount of the investment in Synairgen Research Limited at 31 December 2022 triggered by a decrease in the share price of Synairgen plc following the announcement of the results of Synairgen Research Limited's Phase 3 SPRINTER study on 21 February 2022.

The recoverable amount was determined with reference to IAS 36 methodology by assessing the value in use of the investments based on discounted cash flows. This resulted in an impairment of £66.2 million.

In undertaking the impairment review, the Company has considered both external and internal sources of information, and any observable indications that may suggest that the carrying value of Synairgen Research Limited may be impaired. Future cash flows are determined using Board-approved projections over the estimated development and revenue – generating period, which is in excess of five years.

These projections and strategic plans are based on key assumptions using management estimates and, where applicable, external sources of data and benchmarking. The key assumptions included development cost required to achieve regulatory approval, probability of success of clinical trials, likely licensing terms regarding milestones and royalties, and revenue and operating margins for the projected period.

The discount rate is estimated on a pre-tax basis reflecting the estimated cost of capital of the Company. The pre-tax cost of capital is 14.9%. Management's valuation model applies a post-tax cost of capital to discount risk-adjusted post-tax cash flows.

Determining the estimated recoverable amount is judgemental in nature and requires the use of certain estimated inputs that represent key sources of estimation uncertainty. It is reasonably possible that the estimations and assumptions used in determining the impairment as at 31 December 2022, including discount rate assumptions, may result, within the next financial year, in a material further impairment to the carrying amount of the investment value. For example, if the pre-tax discount rate were to increase by 1% to 15.9% the impairment would increase by £7.4 million.

At 31 December 2022, the Company has an investment in the following subsidiary undertakings:

Name of company	Registered address	Proportion of voting rights and ordinary share capital held	Nature of business
Synairgen Research Limited	Mailpoint 810, Southampton General Hospital, Tremona Road, Southampton SO16 6YD	100%	Drug discovery and development
Synairgen Research (Ireland) Limited	12 Fitzwilliam Place, Dublin 2, Ireland	100%	Pharmaceutical commercialisation
Synairgen Inc	155 Federal Street, Suite 700, Boston, MA 02210, USA	100%	Pharmaceutical commercialisation

5. Debtors

	2022 £000	2021 £000
Other tax and social security	**12**	7
Prepayments and accrued income	**266**	128
Amounts due from subsidiary undertaking	**48**	–
	326	135

All amounts fall due for payment within one year.

6. Cash and cash equivalents

	Note	2022 £000	2021 £000
Cash at bank and in hand	(i)	**11,112**	33,447
Sterling fixed rate deposits of three months' or less maturity at inception		**4,750**	–
		15,862	33,447

(i) At 31 December 2021, £5,004,000 was on 35 days' notice.

7. Creditors: amounts falling due within one year

	2022 £000	2021 £000
Trade creditors	**19**	26
Accruals	**104**	101
	123	127

8. Share capital and share premium

Details of the Company's share capital, share premium, share option schemes and LTIP can be found in note 17 to the Group accounts on pages 57 to 59.

Glossary

Accelerating COVID-19 Therapeutic Interventions and Vaccines (ACTIV) programme
NIH's ACTIV programme is a public-private partnership to develop a coordinated research strategy to speed up the development of the most promising treatments and vaccine candidates for COVID-19

ACTIV-2
A master protocol designed for evaluating multiple investigational agents compared to placebo in adults with mild to moderate COVID-19, not requiring hospitalisation

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

Acute Respiratory Distress Syndrome (ARDS)
Acute respiratory distress syndrome (ARDS) is an acute, diffuse, inflammatory form of lung injury and life-threatening condition in seriously ill patients, characterised by poor oxygenation, pulmonary infiltrates, and acute onset

Adverse Event
An adverse event (AE) can be any unfavourable and unintended sign (including an abnormal laboratory finding), symptom, or disease temporally associated with the use of a medicinal (investigational) product, whether or not related to the medicinal (investigational) product

Aerogen-Ultra
A portable mesh nebuliser manufactured by Aerogen that allows for continuous delivery of inhaled drugs to the airways

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

Allergen
A usually harmless substance capable of triggering a response that starts in the immune system and results in an allergic reaction

Antibiotic
A drug that inhibits bacterial growth or kills bacteria

Antibodies
Proteins produced by a person's immune system that help the body to recognise and get rid of infection

Antiviral
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

Autoantibody
An antibody produced by the body in response to a part of its own tissues

AZD-9412
Inhaled Interferon Beta-1a formulation (aka SNG001) used for the AstraZeneca INEXAS study. See INEXAS

Bacteria
Single-cell organisms that are found everywhere and are the cause of many diseases

BFS
An acronym for Blow-Fill-Seal. Blow-Fill-Seal technology is a pharmaceutical filling process in which containers are formed from a thermoplastic granulate (resin), filled with product, and then sealed in a continuous, integrated, automatic operation

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

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

Biologics License Application (BLA)
A request for permission to introduce, or deliver for introduction, a biologic product into interstate commerce. Regulated by the US FDA

Breathlessness, Cough and Sputum Scale (BCSS)
A three-item questionnaire rating breathlessness, cough and sputum on a 5-point Likert scale from 0 (no symptoms) to 4 (severe symptoms)

Brief Pain Inventory – Short Form
A nine-item self-administered questionnaire used to evaluate the severity of a patient's pain and the impact of this pain on the patient's daily functioning

Broad-spectrum antiviral
An agent that acts against a wide range of disease-causing viruses

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

Candidate
A candidate drug is a compound (e.g. small molecule, antibody, etc.) with strong therapeutic potential and whose activity and specificity have been optimised

Glossary
(continued)

CAT
The COPD Assessment Test (CAT) is a patient-completed questionnaire, which assists patients and their physicians in quantifying the impact of COPD on the patient's health and quality of life

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 (see below) to conduct a clinical trial

CMC
An acronym for chemistry, manufacturing and controls. CMC involves defining manufacturing practices and product specifications that must be followed and met in order to ensure product safety and consistency between batches

Collagen
The main structural protein found in skin and other connective tissues

Community Acquired Pneumonia (CAP)
Pneumonia that is acquired outside of the hospital setting

Contract Research Organisation (CRO)
A company that provides support to the pharmaceutical industry in the form of research services outsourced on a contract basis

COPD
Chronic Obstructive Pulmonary Disease covers two conditions: chronic bronchitis and emphysema. COPD usually results from long-term exposure of 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

Corticosteroids
Commonly referred to as steroids, corticosteroids are a type of anti-inflammatory drug. Corticosteroids closely resemble cortisol, a hormone produced naturally by the adrenal glands

COVID-19
Coronavirus disease 2019 is a respiratory illness caused by SARS-CoV-2

COVID-19 symptom assessment
A self-reported assessment of the presence of COVID-19 symptoms

DNA
Nucleic acid that carries genetic information in the cell

Double-blind
A double-blind study is one in which neither the patients nor the clinical staff know who is receiving a particular treatment

Drug Product
The final formulated drug substance with excipients, in the dosage form ready to be given to patients, for example a tablet or capsule

Drug Substance
The unformulated or not final formulation of the active pharmaceutical ingredient

DSMC
A Data Safety Monitoring Committee (DSMC) reviews and assesses safety information from a clinical trial

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

Endpoints (primary and secondary)
The primary endpoint of a clinical trial is the outcome or outcomes (based on the drug's expected effects) that establish the effectiveness, and/or safety features, of the drug. It is the endpoint for which the trial is powered. Secondary endpoints are additional endpoints, preferably also pre-specified, for which the trial may not be powered. These may be selected to demonstrate additional effects after success on the primary endpoint

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 airway tubes in order to protect and regulate the tissue underneath

Emergency Use Authorisation (EUA)
Authorization by the FDA of unapproved medical products or unapproved uses of approved medical products to be used in an emergency to diagnose, treat, or prevent serious or life-threatening diseases

European Medicines Agency (EMA)
The EMA evaluate and supervise medicines for the benefit of public and animal health in the European Union (EU)

EuroQuol 5 Dimension 5 Level (Eq-5D-5L)
A self-assessed, health related, quality of life questionnaire. The scale measures quality of life on a five-component scale including mobility, self-care, usual activities, pain/discomfort, and anxiety/depression. The responses record five levels of severity

Ex vivo
Ex vivo refers to experimentation or measurements done in, or on, tissue from an organism in an external environment with minimal alteration of natural conditions. A primary advantage of using *ex vivo* tissues is the ability to perform tests or measurements that would otherwise not be possible or ethical in living subjects

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

Excipients
Components of a drug substance/product which do not have a therapeutic effect but can influence the storage, stability and delivery of the drug

Fast Track Designation
A designation by the United States Food and Drug Administration (FDA) of an investigational drug for expedited review to facilitate development of drugs to treat a serious or life-threatening condition to fill an unmet medical need

FDA
US Food and Drug Administration. An American body that is responsible for protecting public health by ensuring the safety, efficacy, and security of human and veterinary drugs, biological products, and medical devices; and by ensuring the safety of America's food supply, cosmetics, and products that emit radiation

FEV_1
Forced Expiratory Volume in the first second. The volume of air that can be forced out in one second after taking a deep breath, an important measure of pulmonary function

Fibroblast
A fibroblast is a type of cell that synthesises the extracellular matrix and collagen, the structural framework for animal tissues, and plays a critical role in wound healing

Fibrosis
The thickening and scarring of connective tissue, usually as a result of injury

BIOFIRE®FILMARRAY®
A system which enables rapid simultaneous testing for a panel of viruses and bacteria in patient samples and was used by Synairgen in SG015

Functional Assessment of Chronic Illness Therapy – Fatigue (FACIT-F)
A 13-item tool that measures an individual's level of fatigue during their usual daily activities over the past week. The level of fatigue is measured on a four-point Likert scale (4 = not at all fatigued to 0 = very much fatigued)

Generalised Anxiety Disorder Assessment (GAD-7)
A seven-item instrument that is used to measure or assess the severity of generalised anxiety disorder (GAD)

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

H1N1 2009
In the spring of 2009, a novel influenza A (H1N1) virus emerged. It was detected first in the United States and spread quickly across the United States and the world. This new H1N1 virus contained a unique combination of influenza genes not previously identified in animals or people. This virus was designated as influenza A (H1N1)pdm09 virus

H5N1
Highly pathogenic avian influenza A (H5N1) virus occurs mainly in birds, is highly contagious among birds, and can be deadly, especially in domestic poultry

Idiopathic Pulmonary Fibrosis (IPF)
A disease in which tissue deep in the lungs becomes thick and stiff, or scarred, over time by unknown cause. The formation of scar tissue is called fibrosis. It usually affects middle-aged and older people

Immunocompromised
Having a weakened immune system

Immunosuppressed
Having a weakened immune system due to a particular health condition or because you are on medication or treatment that suppresses your immune system

I-neb
A nebuliser manufactured by Philips that delivers inhaled drugs to the airway

INEXAS
AstraZeneca's Phase 2a study entitled 'A Study in Asthma Patients to Evaluate Efficacy, Safety and Tolerability of 14 Days Once Daily Inhaled Interferon Beta-1a After the Onset of Symptoms of an Upper Respiratory Tract Infection'

Interferon beta (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

Glossary
(continued)

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

Intention to Treat (ITT)
All patients that were enrolled and randomly assigned to a treatment arm

Investigational New Drug (IND)
A drug developed by the sponsor that is ready for clinical trials in humans

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

Long COVID
Long COVID (Post-COVID-19 syndrome) is defined as "signs and symptoms that develop during or following an infection consistent with COVID-19, that continue for more than 12 weeks and are not explained by an alternative diagnosis"

Long-term viral shedder
An infected host (person) releasing virus for a prolonged period of time

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

Managed Access Programme
A programme through which physicians can prescribe, within their professional responsibility, a yet unapproved treatment for patients with serious or life-threatening diseases or conditions

MERS-CoV
Middle East respiratory syndrome (MERS) is a viral respiratory disease caused by Middle East respiratory syndrome coronavirus (MERS-CoV) that was first identified in Saudi Arabia in 2012

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

NIAIDS
The NIAIDS, the National Institute of Allergy and Infectious Diseases, is one of the 27 institutes and centres that make up the National Institutes of Health, an agency of the United States Department of Health and Human Services

National Early Warning Score (NEWS2)
A system for scoring the physiological measurements that are routinely recorded at the patient's bedside; respiration rate, oxygen saturation, systolic blood pressure, pulse rate, level of consciousness or new confusion and temperature

National Institute of Health and Care Research (NIHR)
UK funding body for health and care research

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

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

Patient Health Questionnaire (PHQ-9)
PHQ-9 is a self-assessed nine question form used to screen depression and monitor changes in signs/symptoms of depression

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

Per Protocol Analysis
The Per Protocol population is usually defined as all patients completing the study without major protocol deviations – that is, those who followed the rules of the study. Analysis of the data from this population is known as Per Protocol analysis

PFS
An acronym for Pre-filled syringe. Drug product is filled into syringes at the manufacturing site and provided to patients with the drug product already in the syringe, ready to use

Phase 1 Clinical Trial
A study conducted in volunteers to determine the biological effects of a drug, especially safety and tolerability

Phase 2 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 2a Clinical Trial
Used to describe a Phase 2 clinical trial evaluating efficacy, adverse effects and safety risks

Phase 2b Clinical Trial
Used to describe a subsequent Phase 2 clinical trial that also evaluates dosage tolerance and optimal dosage frequency in a larger number of patients than enrolled in a Phase 2a trial

Phase 3 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

Placebo-controlled
Placebo-controlled is a trial in which there are two (or more) groups. One group receives the active treatment, the other is given the placebo. Everything else is identical between the two groups, so that any difference in their outcome can be attributed to the treatment

Platform Trial
A type of prospective, disease-focused, adaptive, randomized clinical trial that compares multiple, simultaneous and possibly differently timed interventions against a single, constant control group

PPQ
An acronym for Process Performance Qualification. During PPQ, the process is evaluated to determine if it is capable of reproducible manufacturing and demonstrate that the manufacturing process performs as expected, as required for commercial manufacturing

Pre-clinical
A stage of drug development preceding human clinical trials

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

Process Performance Qualification (PPQ)
The process qualification combining the facility, utilities, equipment (each qualified), and the trained personnel with the commercial manufacturing process, control procedures, and components to produce commercial batches of drug

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

Randomisation
The random assignment of patients in a clinical trial to different treatment groups (e.g. active drug or placebo)

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

Safety study
See Phase 1 Clinical Trial

SARS-CoV-2
Severe Acute Respiratory Syndrome-Coronavirus 2 is the virus strain that causes COVID-19

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

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

Severe asthma
Severe Asthma often requires treatment with high-dose inhaled corticosteroids plus a second controller medication (e.g. long-acting beta-agonists) and/or systemic corticosteroids to prevent it from becoming 'uncontrolled' or which remains 'uncontrolled' despite this therapy. It is associated with frequent asthma exacerbations, persistent symptoms, and a significant impact on the patient's daily life and overall health. Biologics, such as monoclonal antibodies, provide a treatment option for people with severe asthma who continue to experience asthma attacks by helping reduce airway inflammation, improving lung function, and decreasing the frequency and severity of asthma attacks

Glossary
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SG005
Synairgen's Phase 2 randomised, double-blind, placebo-controlled 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

SG015
Synairgen's Phase 2 randomised, double-blind, placebo-controlled study, in COPD patients with and without a confirmed respiratory virus infection assessing anti-viral biomarker responses of inhaled SNG001 compared to placebo

SG016 Home Study
Synairgen's Phase 2 randomised, double-blind, placebo-controlled trial to determine the safety and efficacy of inhaled SNG001 (IFN-β1a for nebulisation) for the treatment of patients with confirmed SARS-CoV-2 infection in the home environment

SG016 Hospital Study
Synairgen's Phase 2 randomised, double-blind, placebo-controlled trial to determine the safety and efficacy of inhaled SNG001 (IFN-β1a for nebulisation) for the treatment of patients with confirmed SARS-CoV-2 infection in the hospital setting

SG018 SPRINTER Study
Synairgen's Phase 3 Trial (SG018) evaluating inhaled interferon beta in hospitalised COVID-19 patients. A randomised, double-blind, placebo-controlled study conducted in 17 countries which enrolled a total of 623 COVID-19 patients

SNG001
A formulation of Interferon Beta-1a delivered to the lung using a nebuliser

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

Standard of Care
A diagnostic and treatment process that a clinician should follow for a certain type of patient, illness, or clinical circumstance; how similarly qualified practitioners would have managed the patient's care under the same or similar circumstances

Statistical Power
Statistical Power is the probability that a statistical test will detect differences when they truly exist

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

Toxicology
The study of the nature and mechanisms of deleterious effects of chemicals on humans, animals and other biological systems

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

United States National Institute of Health (US NIH)
The medical research agency of the US

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

Variant
It is normal for viruses to change and evolve as they spread between people over time. When these changes become significantly different from the original virus, they are known as 'variants'

Variant of Concern (VOC)
A variant is considered a variant of interest if it has mutations that are suspected or known to cause significant changes, and is circulating widely (e.g. known to cause many clusters of infected people, or found in many countries). There are many variants of interest that WHO is continuing to monitor in case they become variants of concern

A variant of interest becomes a variant of concern if it is known to spread more easily, cause more severe disease, escape the body's immune response, change clinical presentation, or decrease effectiveness of known tools – such as public health measures, diagnostics, treatments and vaccines

Ventilated
Using a machine called a ventilator to fully or partially provide artificial ventilation (exchange of air between the lungs and the atmosphere so that oxygen can be exchanged for carbon dioxide)

Viral load
The amount of virus is measured in a certain amount of bodily fluid such as blood, saliva or sputum

Viral shedding
Virus is released or shed from an infected host (person)

Virus or Variant-Agnostic
Not targeted or effective against any one or several viruses or variants, but targeted or effective against all viruses or variants

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

World Health Organisation (WHO)
A United Nations body responsible for international public health

World Health Organisation (WHO) Ordinal Scale for Clinical Improvement (OSCI)
A scale used to measure clinical improvement in patients from a score of 0; uninfected to 8; death

Corporate directory

Company details

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5233429

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Richard Marsden, Dr Phillip Monk, John Ward

Non-executive:
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