Registered No. 08840579

4D pharma plc

Annual Report and Accounts

For the year to 31 December 2015

Contents

Company Information

Directors	David Norwood	*(non-executive Chairman)*
	Duncan Peyton	*(Chief Executive Officer)*
	Dr Alexander Stevenson	*(Chief Scientific Officer)*
	Thomas Engelen	*(non-executive director)*
Secretary	Laurence Dale	
Nominated advisor and broker	Zeus Capital Limited 82 King Street Manchester M2 4WQ and 41 Conduit Street London W1S 2YQ	
Auditor	RSM UK Audit LLP 3 Hardman Street Manchester M3 3HF	
Registrar	Capita Asset Services The Registry 34 Beckenham Road Beckenham Kent BR3 4TU	
Registered office	Third Floor, 9 Bond Court Leeds LS1 2JZ	
Website	www.4dpharmaplc.com	

Chairman and Chief Executive Officer's Joint Review

For the year ended 31 December 2015

4D pharma plc ("4D", the "Company" and, together with its subsidiaries, the "Group") is a group based on nearly two decades of research into bacteria that could be considered to have a profound effect on disease pathways. During 2014 the Group developed this research to build MicroRx; a discovery methodology that is able to rationally select those bacteria that have a precise and evolved therapeutic effect.

Over the last twelve months, our MicroRx methodology has allowed 4D to expand its live biotherapeutics pipeline from two discovery projects to a pipeline of 15 therapeutic programmes covering autoimmune diseases, CNS disorders and cancer. Utilising MicroRx, 4D is able to rapidly develop its programmes into the clinic, currently having two programmes in patient trials, with the expectation to initiate another three programmes over the coming twelve months.

In line with industry standard policies for research and development the Group will continue to expense the costs for this work until regulatory approval is achieved for candidates; only once this milestone is reached will the costs be capitalised.

Bacteria, drugs and the regulators

It is widely understood that bacteria within our gut, referred to as the microbiome, play a key role in the development and regulation of our immune systems. Building on this fact, it has been shown that bacteria not only play a crucial role in the regulation of diseases of the gut such as Crohn's and irritable bowel syndrome, but also potentially those immune diseases that affect other parts of the body, such as rheumatoid arthritis, asthma and multiple sclerosis.

Research into the microbiome and live biotherapeutics is an exciting area of development. There is intense interest as we begin to unravel the impact that the genes in our microbiome may have on our genes and also how the microbiome can impact the response to therapeutic regimes. The thinking within this area of research has moved swiftly from the role of bacteria in diseases of the gut to leading us towards trying to understand the link between the microbiome and diseases such as cancer and autism.

Live biotherapeutics are drugs that build on the understanding of the microbiome and how bacteria can affect disease pathways. They are a class of drugs, regulated and defined by the FDA as "a biological product that contains live organisms, such as bacteria, applicable to the prevention, treatment or cure of a disease and are not vaccines". The rationale for the regulators establishing this new class is based on the compelling scientific evidence provided by several leading academic groups, but also the advances made by companies, such as 4D, in bringing this new class of therapeutics to patients.

At 4D we develop bacteria that are isolated from healthy humans. We believe these bacteria are safe and have no toxic effects. The lack of toxicity or side effects brings a significant advantage over existing therapies for diseases such as rheumatoid arthritis, Crohn's or multiple sclerosis that are aggressive and can cause serious life-threatening conditions as a result of treatment.

In allowing 4D to take its proprietary candidates into clinical trials in patients directly, the FDA and EMA concur with our views regarding the lack of toxicity and reduced side effects of the live biotherapeutics developed by 4D. 4D continues to work with the regulatory bodies to help determine the regulatory agenda and develop live biotherapeutics in the safest and most efficient route.

From research to patients

During 2014 the challenge for 4D was: could we rationally identify bacteria that were therapeutically relevant? With the aid of the MicroRx methodology, 4D showed we could identify bacteria that had effect in pharmaceutical standard models of rheumatoid arthritis, multiple sclerosis and asthma.

The challenge in 2015 was: could 4D take the research and move this towards the clinic? Towards the end of 2015, we commenced our first trial in patients with irritable bowel syndrome and gained approval to start a trial in paediatric Crohn's disease.

We believe we are the first company to address an immune disease using live biotherapeutics delivered by an oral capsule.

In simple terms this means we have addressed the development, optimisation, manufacturing, stability, encapsulation, dosing and regulatory challenges over the last twelve months which, under normal circumstances, we believe would take the pharmaceutical industry up to six years. 4D is pioneering in its approach which aims to take a novel pure piece of research into patient trails within an 18-month timeframe. This has been a huge achievement requiring considerable effort across the organisation.

It has also been a significant learning process. As we continue to focus and refine these processes, we believe 4D will be able to increase the efficiency in taking our research into the clinic.

New areas of research and future developments

4D chose to initially focus on immune conditions associated with the gut. It was a logical step to look at the bacteria in the gut and look for a local effect. This research gave 4D programmes in paediatric Crohn's, paediatric colitis and irritable bowel syndrome.

All the above are immune-related disorders. As we began to understand the potential of bacteria in the pathways associated with these diseases, we focussed on other immune pathways using the MicroRx methodology to rationally select bacteria that could have a therapeutic effect in diseases such as rheumatoid arthritis, asthma and multiple sclerosis.

Our research, understanding and ambition have moved on further.

In August we initiated a research programme in conjunction with University College Cork to look at the potential effect of bacteria on conditions such as autism, depression and anxiety. This research will bring together the world-leading research at UCC in the gut–brain axis with the power of the MicroRx methodology, identifying those bacteria that have a disease-modifying effect.

In late November, two publications in Science discussed the interaction of the microbiome in cancer: a paper by Sivian discussed the potential of constituents of microbiome to promote antitumor activity; and a paper by Vetizou highlighted that the patient's microbiome could play a significant role in the response to treatment by a checkpoint inhibitor.

Also in November, 4D announced its first live therapeutic oncology candidate, being the first company to do so globally. Both these programmes further demonstrate that 4D continues to lead in the research and development of live biotherapeutics into new areas and MicroRx can rapidly and efficiently build a pipeline that now covers diseases in CNS, cancer and autoimmunity.

On 9 February 2016, 4D purchased the entire issued share capital of Tucana Health Limited, a company based in Cork in Ireland. Tucana, a start-up company from University College Cork, was founded by Prof Fergus Shanahan and Prof Paul O'Toole to investigate the use of microbiome signatures to aid the diagnosis and treatment of diseases, including those targeted by 4D. Following the acquisition, 4D will continue to build on this research, investing in the platform and building further research capability based at the APC Microbiome Institute at UCC. Initially, the focus will be on work on the diagnosis and patient stratification for Irritable Bowel Syndrome. Longer term the Company will focus on building a diagnostic platform across multiple disease areas mirroring the programmes developed by MicroRx, 4D's therapeutic methodology. This work will be led by Prof Fergus Shanahan and Prof Paul O'Toole, the founders of Tucana.

Over the coming twelve months our aim is to further build and solidify our position; we will continue to develop our research and understanding of the microbiome, and expand our clinical programmes to rapidly bring safe, efficacious therapies to patients.

Financial results and finance review

Results

R&D expenses were £6.9 million for the year ended 31 December 2015 (period to 31 December 2014: £1.8 million), reflecting the increase in activity and headcount.

Administrative expenses were £3.6 million for the year ended 31 December 2015 (period to 31 December 2014: £1.7 million). The loss after tax for the year ended 31 December 2015 was £7.7 million or 12.62 pence per share (period to 31 December 2014: £2.4 million or 4.81 pence per share).

Total staff costs for the year were £1.1 million (period to 31 December 2014: £0.5 million), primarily driven by research and development through further studies using the MicroRx methodology which has identified candidates and on moving recognised candidates into the development phases.

Corporation tax reclaims on research and development equated to £2.3 million with £1.6 million relating to reclaims for the current year and £0.7 million for the prior year (period to 31 December 2014: £Nil).

Cash flow and balance sheet

The Group had net assets at 31 December 2015 of £92.7 million (period to 31 December 2014: £37.0 million) and cash, cash equivalents, short-term investments and deposits of £85.4 million (period to 31 December 2014: £31.8 million).

During the year 4D raised £64.8 million (before expenses) from existing and new shareholders. Funds were raised from two placings, the first in January 2015 to raise £34.8 million and the second in December 2015 to raise £30.0 million.

The cost of issuing new share capital for the additional placings which amounted to £976,000, has been charged against the share premium account.

During the year, the Company purchased the remaining non-controlling interest equating to 16.5% of the capital in 4D Pharma Research Limited at a cost of £0.4 million. In the period to 31 December 2014 83.5% of the capital was purchased for £1.730 million.

For the year ended 31 December 2015

Financial results and finance review continued

Treasury activities and policies

The Group manages its cash deposits prudently and invests its funds across a number of financial institutions which have investment-grade credit ratings. The deposits range from instant access to twelve-month term deposits and are regularly reviewed by the Board. Cash forecasts are updated monthly to ensure that there is sufficient cash available for the Group's foreseeable requirements.

Foreign exchange management

The Group does not take out forward contracts against uncertain or forecast expenditure, as the timings and extent of future cash flow requirement denominated in foreign currencies are difficult to predict. Future currency needs are continually monitored and purchased when the extent and timings are known.

David Norwood
Non-executive Chairman
30 March 2016

Duncan Peyton
Chief Executive Officer
30 March 2016

The Board

David Norwood – *Non-executive Chairman*
David has had a long career building a number of science, technology and investment companies. He is the founder of IP Group plc, one of the UK's leading technology commercialisation businesses, and a shareholder in the Company. Previously, he was Chief Executive of stockbroker Beeson Gregory (acquired by Evolution Group plc) after it acquired IndexIT Partnership, a technology advisory boutique he had founded in 1999. He was a founding shareholder of Evolution Group plc (recently acquired by Investec), and also co-founder of Ora Capital plc. He has been a founder and director of many UK technology companies, including Oxford Nanopore Technologies Ltd, Proximagen Ltd, Synairgen plc, Ilika Technologies Ltd, Oxford Catalysts and Plectrum Petroleum (acquired by Cairn Energy plc). He has also acted as seed investor and/or advisor to Wolfson Microelectronics Ltd, Nanoco Technologies Ltd, Tissue Regenix Group plc and Arc International (now part of Synopsys). He is also non-executive Chairman of Oxford Pharmascience Group plc.

Duncan Peyton – *Chief Executive Officer*
Duncan has a proven track record in identifying, investing in and growing businesses within the pharmaceutical sector. He was the founder of Aquarius Equity, a specialist investor in businesses within the life science sector, which provided investors with access to innovative, high growth potential companies that delivered significant capital growth. Duncan started his career in a bioscience start-up business, which ultimately went on to list on the London Stock Exchange, subsequently qualified as a corporate finance lawyer with Addleshaw Goddard, then Addleshaw Booth & Co, and later joined 3i plc as an investment manager. Duncan founded Aquarius Equity in 2005, which made founding investments into Nanoco Technologies Ltd, Auralis Limited (subsequently sold to ViroPharma) and Tissue Regenix Group plc.

Dr Alexander Stevenson – *Chief Scientific Officer*
Alex began his career as a scientist, working in research and for an NYSE-quoted drug development company, before moving into early-stage pharmaceutical and healthcare investments. He has fulfilled board-level investment and operational management roles. He was a director and shareholder in Aquarius Equity from 2008, where he was responsible for identifying new investments and developing and implementing scientific strategies both pre- and post-investment. Prior to joining Aquarius Equity, Alex worked for IP Group plc where he specialised in life science investments, identifying, developing and advising a number of companies in its portfolio, some of which went on to list on AIM. He joined IP Group following its acquisition of Techtran Group Ltd in 2005.

Thomas Engelen – *Non-executive director*
Thomas is also non-executive Chairman at Akcros Holdings Ltd and Penlan Healthcare. Thomas has been a founder and/or non-executive director of a number of UK life sciences companies, including Colonis Pharma Ltd, Warneford Partners Ltd and Martindale Pharma Ltd. Thomas has supported private equity and other investors in over 50 potential deal transactions, on targets in Europe and the USA, from cash constrained/chapter 11 to cash-rich with EV of up to $1B. Before this, he worked in life sciences for over 20 years in senior executive roles. Starting in 1987 at Akzo Nobel Pharma he worked with hospital products, diagnostics and medical equipment as General Manager for the Middle East and Africa. After this, he led Rosemont Pharmaceuticals in Leeds in niche oral liquid medicines, followed by being President of Organon in Brazil. He was promoted to VP The Americas and, lastly, to CMO at Organon, in charge of the global product portfolio, based in the USA. Returning to Europe, he led Novartis Consumer Health in the UK.

Strategic Report

For the year ended 31 December 2015

The information required by schedule 7 of the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 has been included in the separate Strategic Report in accordance with section 414C(11) of the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013.

Principal activity

The principal activity of the Group during the year (and that of the previous 51-week period) was the research and development of pharmaceutical products in new live biotherapeutic areas.

Business model

A description of the Group's activities and how it seeks to add value are included in the Chairman and Chief Executive Officer's ("CEO's") Joint Review on pages 3 to 5.

Review of the business and future developments

A review of the Group's performance during the year and its future prospects are included in the Chairman and CEO's Joint Review on pages 3 to 5, which should be read in conjunction with this report.

Staff numbers in the Group increased during the year from 13 to 24, with staff costs increasing from £0.5 million for the period to 31 December 2014 to £1.1 million for the year to 31 December 2015 as the Group focussed on accelerating the MicroRx methodology and the development of existing candidates.

Presently, the focus is on bringing a candidate to market and in locating other suitable candidates and one of the key components to achieving this is ensuring that the Group is adequately funded to get there and the Directors recognise the required cash to achieve this. There were two share issues in the year which collectively raised net proceeds, after costs, of £63.8 million (share issues in the period to 31 December 2014: £38.4 million) leaving cash and cash equivalents at 31 December 2015 at £1.8 million (31 December 2014: £28.8 million) and a balance of £83.7 million on short-term deposits at the year end (2014: £3.0 million). The current cash position should allow the necessary further development of existing candidates and research into new candidates from the MicroRx methodology for the foreseeable future.

Key performance indicators

The key indicators of performance for the business in its current stage of development are the completion of technical milestones in relation to the development of targeted products and the research pipeline. In addition, the management and control of cash balances is a priority for the Group and these are budgeted and monitored closely to ensure the Group maintains adequate liquid resources to meet financial commitments as they arise.

At this stage in its development, quantitative key performance indicators are not an effective way of measuring the Group's performance. However, a qualitative summary of performance in the period is provided in the Chairman and CEO's Joint Review.

Principal risks and uncertainties

The principal risks to achieving full commercialisation and to becoming cash generative are outlined as follows:

Technology and development risk

There can be no guarantee that any of the products currently in development will be developed into commercially viable products, meet regulatory requirements, be manufactured in commercial quantities at an acceptable cost or marketed successfully and profitably. The Group employs experienced development personnel who have experience of successfully bringing such products to the market.

Regulatory risk

Regulatory approval timelines can be affected by a number of factors, such as trial recruitment rates, clinical results and changes to regulatory requirements which are outside the control of the Group. However, all of the Group's products follow well established regulatory routes and the Group works with experienced regulatory personnel and consultants to navigate the process.

Principal risks and uncertainties continued

Competition

Although the directors believe that for certain of the Group’s products there is limited direct competition, there may be products and competitors of which they are currently unaware, which could have a detrimental effect on the Group’s trading performance in the future. The Group expects a balanced exposure to competition with some offerings facing little competition, but others facing more.

Attraction and retention of key employees

The Group depends on directors and certain key employees spread across the various subsidiaries. The ability to attract and retain key employees cannot be guaranteed. However, the Group endeavours to ensure succession planning where possible and ensures that remuneration and incentive packages are in line with industry standards.

On behalf of the Board

Duncan Peyton
Chief Executive Officer
30 March 2016

Directors' Report
For the year ended 31 December 2015

The directors present their report and the audited financial statements for the Group and the Company for the year ended 31 December 2015. 4D pharma plc (formerly Schosween 18 Limited) was incorporated on 10 January 2014 and details of the various investments in subsidiaries are contained in note 12 to the financial statements.

Directors
The directors who held office during the year and as at the date of signing the financial statements were as follows:

David Norwood

Duncan Peyton

Dr Alexander Stevenson

Thomas Engelen

Details of the directors' remuneration are shown in the Report of the Remuneration Committee on page 15. Details of the directors' interests in the share capital of the Company are set out below.

No director had an interest in any contract that was significant in relation to the Company's business at any time during the year.

Financial instruments
Details of the Group's financial risk management objectives and policies are disclosed in note 23 to the financial statements.

Research and development
The principal activity of the Group is research and development, a review of which is included in the Chairman and CEO's Joint Review on pages 3 to 5.

Total research and development spend in the year to 31 December 2015 was £6.895 million (period to 31 December 2014: £1.823 million). No development expenditure was capitalised in the current year or the previous 51-week period to 31 December 2014.

Corporation tax
Corporation tax reclaims on research and development equated to £2.328 million with £1.641 million relating to reclaims for the current year and £0.687 million for the prior year (period to 31 December 2014: £Nil).

Dividends
The directors do not recommend payment of a dividend nor was there a dividend in the previous 51-week period to 31 December 2014.

Share capital and funding
As at 31 December 2015 share capital comprised 64,365,198 ordinary shares of 0.25 pence each. There is only one class of share and all shares are fully paid. Full details of the Group's and the Company's share capital movements during the year are given in note 19 to the financial statements.

Details of shares under option are provided in note 20 to the financial statements.

Directors' indemnity insurance
The Group has maintained insurance throughout the year for its directors and officers against the consequences of actions brought against them in relation to their duties for the Group. Such provision remains in force as at the date of approval of the Directors' Report.

Directors' interests
Directors' interests in the shares of the Company, including family and beneficial interests, at 31 December 2015 were:

	Ordinary shares of 0.25 pence each			
	31 December 2015 Number	**31 December 2015 %**	31 December 2014 Number	31 December 2014 %
David Robert Norwood	**7,000,000**	**10.9**	7,000,000	13.4
Duncan Joseph Peyton	**6,250,286**	**9.7**	6,250,286	12.0
Dr Alexander James Stevenson	**6,250,286**	**9.7**	6,250,286	12.0
Thomas Engelen	**500,000**	**0.8**	500,000	1.0

Directors' Report continued
For the year ended 31 December 2015

Substantial shareholders
In addition to the Directors' interests the Company is aware that the following had an interest in 3% or more of the issued ordinary share capital of the Company at 31 December 2015 based on the ordinary shares in issue of 64,365,198 (as at 31 December 2014: 52,092,119):

	Number of 0.25 pence ordinary shares as at 31 December 2015	**% of issued capital**	Number of 0.25 pence ordinary shares as at 31 December 2014	% of issued capital
Woodford Investment Management LLP	**15,607,071**	**24.3**	6,857,113	13.2
Invesco Asset Management Limited	**9,163,617**	**14.2**	6,905,667	13.3
Lansdowne Partners	**4,531,707**	**7.0**	3,800,000	7.3
Aviva Investors Global Services Limited	**2,926,132**	**4.6**	1,998,399	3.8

There were no notified significant changes in these holdings between 31 December 2015 and the date of signing of these financial statements.

Donations
No charitable or political donations were made in the year or during the previous period.

Acquisition of non-controlling interest
During the year, the Company purchased the remaining non-controlling interest equating to 16.5% of the capital in 4D Pharma Research Limited at a cost of £0.402 million. In the period to 31 December 2014 83.5% of the capital was purchased for £1.730 million.

Policy on payment of suppliers
It is the policy and normal practice of the Group to make payments due to suppliers, in accordance with agreed terms and conditions, with payments being made generally in the month following receipt of invoice.

Employment policies
The Group is committed to ensuring the health and safety of its employees in the workplace. This includes the provision of regular medical checks.

The Group supports the employment of disabled people where possible through recruitment, by retention of those who become disabled and generally through training, career development and promotion.

The Group is committed to keeping employees as fully informed as possible with regard to the Group's performance and prospects and seeks their views, wherever possible, on matters which affect them as employees.

Corporate Governance Statement
The Group's statement on corporate governance can be found in the Corporate Governance Statement on pages 12 to 14.

Going concern
The Chairman and CEO's Joint Review on pages 3 to 5 outlines the business activities of the Group, along with the factors which may affect its future development and performance, and discusses the Group's financial position, along with details of its cash flow and liquidity. Note 23 to the financial statements sets out the Group's financial risks and the management of those risks.

Having prepared management forecasts and made appropriate enquiries, the directors are satisfied that the Group has adequate cash and other resources for the foreseeable future, as the Group is at the start-up stage of its business lifecycle. Accordingly, they have continued to adopt the going concern basis in preparing the Group and Company financial statements.

Directors' Report continued
For the year ended 31 December 2015

Disclosure of information to the auditor
The directors who held office at the date of approval of this Directors' Report confirm that:

- so far as they are each aware there is no relevant audit information of which the Group's auditor is unaware; and
- each director has taken all the steps that he ought to have taken as a director to make himself aware of any relevant audit information and to establish that the Group's auditor is aware of that information.

Auditor
RSM UK Audit LLP (formerly Baker Tilly UK Audit LLP) has indicated its willingness to continue in office.

Ordinary resolutions to re-appoint RSM UK Audit LLP as auditor and to authorise the directors to agree its audit fee will be proposed at the forthcoming Annual General Meeting.

Subsequent events
On 10 February 2016, 4D pharma plc purchased the entire issued share capital of Tucana Health Limited. Further detail of this acquisition is contained in note 25.

Annual General Meeting
The Annual General Meeting of the Company will be held on 23 May 2016 at 2 p.m. at the Gridiron Building, 1 Pancras Square, London N1C 4AG. The notice convening the Annual General Meeting, together with an explanation of the resolutions to be proposed at the meeting, is contained in the notice of meeting on pages 43 to 48.

Recommendation
The Board considers that the resolutions to be proposed at the Annual General Meeting are in the best interests of the Company and it is unanimously recommended that shareholders support these proposals as the Board intends to do in respect of their own holdings.

The Directors' Report was approved by the Board on 30 March 2016 and was signed on its behalf by:

Duncan Peyton
Chief Executive Officer
30 March 2016

Corporate Governance Statement

For the year ended 31 December 2015

Compliance

The Board believes in the importance of corporate governance and is aware of its responsibility for overall corporate governance, and for supervising the general affairs and business of the Group.

The Company's shares are quoted on the AIM Market of the London Stock Exchange ("AIM") and is subject to the continuing requirements of the AIM Rules. Although the Group is not required to comply with the UK Corporate Governance Code by virtue of being an AIM-quoted company, the Board seeks to apply the QCA Corporate Governance Code (as devised by the QCA in consultation with a number of significant institutional small company investors) to the extent appropriate and practical for a company of its nature and size. This section provides general information on the Group's adoption of the QCA Corporate Governance Code.

Board composition and responsibility

The Board consists of four directors, two of whom are non-executive. The names of the directors, together with their biographical details, are set out on page 6.

The Board has determined that Thomas Engelen is independent in character and judgement and that there are no relationships or circumstances which could materially affect or interfere with the exercise of his independent judgement. The Board is satisfied with the balance between executive and non-executive directors, which allows it to exercise objectivity in decision making and proper control of the Group's business. The Board considers its composition is appropriate in view of the size and requirements of the Group's business and the need to maintain a practical balance between executives and non-executives. Due to the structure of the Company it is considered that it is not appropriate to change the successful Board composition at present.

All directors appointed by the Board are subject to election by shareholders at the first Annual General Meeting after their appointment. Directors are also subject to retirement by rotation and re-election in accordance with the articles of association of the Company.

The non-executive directors constructively challenge and help develop proposals on strategy and bring strong, independent judgement, knowledge and experience to the Board's deliberations. The directors are given access to independent professional advice at the Group's expense, when the directors deem it is necessary in order for them to carry out their responsibilities.

The Board's primary objective is to focus on adding value to the assets of the Group by identifying and assessing business opportunities and ensuring that potential risks are identified, monitored and controlled. Matters reserved for Board decisions include strategy, budget, performance, and approval of major capital expenditure and the framework of internal controls. The implementation of Board decisions and day-to-day operations of the Group are delegated to executive directors.

The Board receives appropriate and timely information prior to each meeting, with a formal agenda and Board and Committee papers being distributed several days before meetings take place. Any director may challenge Group proposals, and decisions are taken democratically after discussion. Any director who feels that any concern remains unresolved after discussion may ask for that concern to be noted in the minutes of the meeting. Any specific actions arising from such meetings are agreed by the Board and then followed up by management.

The Group maintains, for its directors and officers, liability insurance for any claims made against them in that capacity.

The Group has effective procedures in place to deal with conflicts of interest. The Board is aware of other commitments of its directors and changes to these commitments are reported to the Board.

The Board has established an Audit and Risk Committee and a Remuneration Committee, with formally delegated duties and responsibilities. The directors do not consider that, given the size of the Board, it is appropriate at this stage to have a nomination committee. However, this will be kept under regular review by the Board.

Audit and Risk Committee

The Audit and Risk Committee comprises Thomas Engelen as Chairman and David Norwood as the other member of the Committee. Thomas Engelen is an independent director and has recent and relevant financial experience. The Committee has primary responsibility for monitoring the quality of internal controls, ensuring that the financial performance of the Company is properly measured and reported on, and reviewing reports from the Company's auditor relating to the Company's accounting and internal controls, in all cases having due regard to the interests of shareholders. The Audit and Risk Committee will meet twice a year.

Corporate Governance Statement continued
For the year ended 31 December 2015

Remuneration Committee
The Company has established a formal and transparent procedure for developing policy on Executive remuneration and for fixing the remuneration packages of individual directors. This Committee comprises Thomas Engelen as Chairman and David Norwood as the other member of the Committee. The Committee reviews the performance of the Executive directors and determines their terms and conditions of service, including their remuneration and the grant of options, having due regard to the interests of shareholders. The Remuneration Committee will meet at least once a year.

The number of Board and Committee meetings attended by each of the directors during the year is shown below:

	Full Board	Audit and Risk Committee	Remuneration Committee
Number of meetings in year	12	2	1
Attendance:			
Executive directors			
Duncan Peyton	12	—	—
Dr Alexander Stevenson	10	—	—
Non-executive directors			
David Norwood	10	2	1
Thomas Engelen	8	2	1

Approach to risk and internal control
The Board is responsible for establishing and maintaining the Group's systems of internal control. Internal control systems are designed to meet the particular needs of the Group and to address the risks to which it is exposed. By their nature, internal control systems are designed to manage rather than eliminate risk, and can provide only reasonable and not absolute assurance against material misstatement or loss. As stated, primary responsibility for monitoring the quality of internal control has been delegated to the Audit and Risk Committee.

Communicating vision and strategy
The directors seek to visit institutional shareholders at least twice a year. In addition, all shareholders are welcome to attend the Company's Annual General Meeting, where there is an opportunity to question the directors as part of the agenda, or more informally after the meeting. Communication with shareholders is seen as an important part of the Board's responsibilities, and care is taken to ensure that all price-sensitive information is made available to all shareholders at the same time.

Share dealing
The directors understand the importance of complying with the AIM Rules for Companies relating to directors' dealings and has established a share dealing code which is appropriate for an AIM-quoted company.

Annual General Meeting
At the Annual General Meeting, separate resolutions will be proposed for each substantially different issue. The outcome of the voting on resolutions is disclosed by means of an announcement on AIM.

Statement of directors' responsibilities in relation to the Annual Report and financial statements
The directors are responsible for preparing the Strategic Report, the Directors' Report and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare Group and Company financial statements for each financial year. The directors have elected to prepare the Group and Company financial statements in accordance with International Financial Reporting Standards ("IFRS") as adopted by the European Union ("EU").

The financial statements are required by law and IFRS adopted by the EU to present fairly the financial position and performance of the Group and the Company. The Companies Act 2006 provides, in relation to such financial statements, that references in the relevant part of that Act to financial statements giving a true and fair view are references to their achieving a fair presentation.

Corporate Governance Statement continued

For the year ended 31 December 2015

Statement of directors' responsibilities in relation to the Annual Report and financial statements continued
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 the Company and of the profit or loss of the Group for that period.

In preparing each of the Group and the Company financial statements, the directors are required to:

a. select suitable accounting policies and then apply them consistently;

b. make judgements and accounting estimates that are reasonable and prudent;

c. for the Group financial statements, state whether they have been prepared in accordance with IFRS as adopted by the EU; and

d. prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Group and 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 the 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 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.

The directors are responsible for the maintenance and integrity of the corporate and financial information included on the 4D pharma plc website (www.4dpharmaplc.com). Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Report of the Remuneration Committee
For the year ended 31 December 2015

Statement of compliance
This report does not constitute a directors' remuneration report in accordance with the Companies Act 2006. As a company whose shares are admitted to trading on AIM, the Company is not required by the Companies Act 2006 to prepare such a report. This report sets out the Group policy on directors' remuneration, including emoluments, benefits and other share-based awards made to each director.

Policy on Executive directors' and senior management's remuneration
The overall policy of the Board is to ensure that Executive management is provided with appropriate incentives to encourage enhanced performance and is, in a fair and responsible manner, rewarded for its contribution to the success of the Group.

The main elements of the remuneration packages for Executive directors and senior management are as follows:

Basic annual salary
The base salary is reviewed annually at the beginning of each year. The review process is undertaken by the Remuneration Committee and takes into account several factors, including the current position and development of the Group, individual contributions and market salaries for comparable organisations.

The Company does not provide an occupational pension scheme for Executive directors, nor does it make contributions into the private pension schemes of Executives.

Discretionary annual bonus
All Executive directors and senior managers are eligible for a discretionary annual bonus. This takes into account individual contribution, business performance and technical and commercial progress, along with financial results.

Discretionary share incentives
The Group operates a share option scheme; all directors and employees are eligible for the granting of the options, which are at the discretion of Group when granted in accordance with the approved share option scheme requirements. Details of the grants made under the scheme are provided in note 20 to the financial statements. This takes into account the need to motivate and retain key individuals. Details of share options granted to directors are detailed in the directors' remuneration note below.

Benefits in kind
The Company does not provide any taxable benefits for Executives.

Policy on non-executive directors' remuneration
Non-executive directors receive a fixed fee and do not receive any pension payments or other benefits, nor do they participate in bonus or share schemes. The Remuneration Committee reviews non-executive remuneration to ensure that it is in line with current market rates in order to attract and retain high calibre individuals.

Service contracts
Duncan Peyton and Dr Alexander Stevenson have service agreements with an indefinite term providing for a maximum of twelve months' notice by either party.

Non-executive directors are employed on letters of appointment which may be terminated on not less than three months' notice.

Directors' remuneration
The remuneration of the directors who served on the Company's Board during the year to 31 December 2015 is as follows:

	31 December 2015		Period to 31 December 2014	
	Base salary and fees £000	**Total £000**	Base salary and fees £000	Total £000
Executive directors				
Duncan Peyton	**101**	**101**	97	97
Dr Alexander Stevenson	**101**	**101**	97	97
Non-executive directors				
David Norwood	**25**	**25**	23	23
Thomas Engelen	**33**	**33**	47	47
	260	**260**	264	264

The directors were not granted any share options in the year ended 31 December 2015 or the period ended 31 December 2014 and therefore none of the directors held any share options at 31 December 2015. There were no bonus or pension schemes for the directors during the year and for the period ended 31 December 2014.

Independent Auditor's Report To the members of 4D pharma plc
For the year ended 31 December 2015

We have audited the group and parent company financial statements ("the financial statements") on pages 17 to 42. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards ("IFRSs") as adopted by the European Union and, as regards the parent company financial statements, as applied in accordance with the provisions of the Companies Act 2006.

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

Respective responsibilities of directors and auditor
As more fully explained in the Directors' Responsibilities Statement set out on pages 13 - 14, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

Scope of the audit of the financial statements
A description of the scope of an audit of financial statements is provided on the Financial Reporting Council's website at http://www.frc.org.uk/auditscopeukprivate.

Opinion on financial statements
In our opinion

- the financial statements give a true and fair view of the state of the group's and the parent's affairs as at 31 December 2015 and of the group's loss for the year then ended;
- the group financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union;
- the parent financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union and as applied in accordance with the Companies Act 2006; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

Opinion on other matter prescribed by the Companies Act 2006
In our opinion the information given in the Strategic Report and the Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

Matters on which we are required to report by exception
We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

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

Graham Bond FCA (Senior Statutory Auditor)
For and on behalf of RSM UK AUDIT LLP (formerly Baker Tilly UK Audit LLP),
Statutory Auditor
Chartered Accountants
3 Hardman Street
Manchester
M3 3HF

Group Statement of Total Comprehensive Income

For the year to 31 December 2015

	Notes	**31 December 2015 £000**	Period to 31 December 2014 £000
Research and development costs	4	**(6,895)**	(1,823)
Administrative expenses	4	**(3,615)**	(1,653)
Operating loss	4	**(10,510)**	(3,476)
Finance income	6	**451**	92
Finance expense	6	**—**	(5)
Share of losses in associated undertaking	7	**—**	(379)
Gain on remeasurement of equity interest to fair value on acquisition of subsidiary	7	**—**	1,388
Loss before taxation		**(10,059)**	(2,380)
Taxation	8	**2,328**	—
Loss for the year and total comprehensive income for the year		**(7,731)**	(2,380)
Loss for the year and total comprehensive income for the year attributable to:			
Owners of the parent undertaking		**(7,547)**	(2,021)
Non-controlling interests		**(184)**	(359)
Loss for the year and total comprehensive income for the year		**(7,731)**	(2,380)
Loss per share			
Basic and diluted for the year	9	**(12.62)p**	(4.81)p

The loss for the year arises from the Group's continuing operations and is attributable to the equity holders of the parent.

There were no other items of comprehensive income for the year and therefore the loss for the year is also the total comprehensive loss for the year.

The basic and diluted loss per share are the same as the effect of share options is anti-dilutive.

The notes on pages 24 to 42 form an integral part of these financial statements

Group Statement of Financial Position

At 31 December 2015

	Notes	**As at 31 December 2015 £000**	As at 31 December 2014 £000
Assets			
Non-current assets			
Property, plant and equipment	10	**1,115**	417
Intangible assets	11	**6,171**	6,266
		7,286	6,683
Current assets			
Inventories	13	**28**	115
Trade and other receivables	14	**2,013**	356
Taxation receivables	15	**2,623**	234
Short-term investments and cash on deposit	16	**83,664**	3,007
Cash and cash equivalents	16	**1,777**	28,823
		90,105	32,535
Total assets		**97,391**	39,218
Liabilities			
Current liabilities			
Trade and other payables	17	**4,309**	1,785
		4,309	1,785
Non-current liabilities			
Deferred tax	18	**385**	385
		385	385
Total liabilities		**4,694**	2,170
Net assets		**92,697**	37,048
Capital and reserves			
Share capital	19	**161**	130
Share premium account	19	**102,003**	38,259
Merger reserve		**958**	958
Other reserve		**(864)**	—
Share-based payments reserve	20	**7**	—
Retained earnings		**(9,568)**	(2,021)
Attributable to owners of parent		**92,697**	37,326
Non-controlling interest		**—**	(278)
Total equity		**92,697**	37,048

Approved by the Board and authorised for issue on 30 March 2016.

The notes on pages 24 to 42 form an integral part of these financial statements.

Duncan Peyton
Director
30 March 2016

Company Statement of Financial Position

At 31 December 2015

	Notes	**As at 31 December 2015 £000**	As at 31 December 2014 £000
Assets			
Non-current assets			
Property, plant and equipment	10	**369**	4
Intangible assets	11	**1,076**	—
Investment in subsidiaries	12	**2,323**	6,519
		3,768	6,523
Current assets			
Loans to subsidiaries	12	**8,916**	—
Trade and other receivables	14	**1,940**	194
Taxation receivables	15	**536**	91
Short-term investments and cash on deposit	16	**83,664**	3,007
Cash and cash equivalents	16	**1,684**	28,784
		96,740	32,076
Total assets		**100,508**	38,599
Liabilities			
Current liabilities			
Trade and other payables	17	**2,768**	417
Total liabilities		**2,768**	417
Net assets		**97,740**	38,182
Capital and reserves			
Share capital	19	**161**	130
Share premium account	19	**102,003**	38,259
Merger reserve		**958**	958
Share-based payments reserve	20	**7**	—
Retained earnings		**(5,389)**	(1,165)
Total equity		**97,740**	38,182

Approved by the Board and authorised for issue on 30 March 2016.

The notes on pages 24 to 42 form an integral part of these financial statements.

Duncan Peyton
Director
30 March 2016

Group Statement of Changes in Equity

For the year to 31 December 2015

	Attributable to owners of parent								
	Share capital £000	Share premium £000	Share-based payment reserve £000	Merger reserve £000	Other reserve £000	Retained earnings £000	Total £000	Non-controlling interest £000	Total equity £000
At 10 January 2014	—	—	—	—	—	—	—	—	—
Issue of share capital (net of expenses)	130	38,259	—	958	—	—	39,347	—	39,347
Total transactions with owners recognised in equity for the period	**130**	**38,259**	—	**958**	—	—	**39,347**	—	**39,347**
Loss and total comprehensive income for the period	—	—	—	—	—	(2,021)	(2,021)	(359)	(2,380)
Non-controlling interest share of the net assets of the Group on acquisition	—	—	—	—	—	—	—	81	81
At 31 December 2014	**130**	**38,259**	—	**958**	**—**	**(2,021)**	**37,326**	**(278)**	**37,048**
Issue of share capital (net of expenses)	31	63,744	—	—	—	—	63,775	—	63,775
Acquisition of minority interest	—	—	—	—	(864)	—	(864)	462	(402)
Total transactions with owners recognised in equity for the year	**31**	**63,744**	—	—	**(864)**	—	**62,911**	**462**	**63,373**
Loss and total comprehensive income for the year	—	—	—	—	—	(7,547)	(7,547)	(184)	(7,731)
Issue of share-based compensation	—	—	7	—	—	—	7	—	7
At 31 December 2015	**161**	**102,003**	**7**	**958**	**(864)**	**(9,568)**	**92,697**	**—**	**92,697**

Details regarding the purpose of each reserve within equity are given in note 21.

Company Statement of Changes in Equity

For the year to 31 December 2015

	Share capital £000	Share premium £000	Share-based payment reserve £000	Merger reserve £000	Retained earnings £000	Total £000
At 10 January 2014	—	—	—	—	—	—
Issue of share capital (net of expenses)	130	38,259	—	958	—	39,347
Total transactions with owners recognised in equity for the period	130	38,259	—	958	—	39,347
Loss and total comprehensive income for the period	—	—	—	—	(1,165)	(1,165)
At 31 December 2014	130	38,259	—	958	(1,165)	38,182
Issue of share capital (net of expenses)	31	63,744	—	—	—	63,775
Total transactions with owners recognised in equity for the year	31	63,744	—	—	—	63,775
Loss and total comprehensive income for the year	—	—	—	—	(4,224)	(4,224)
Issue of share-based compensation	—	—	7	—	—	7
At 31 December 2015	**161**	**102,003**	**7**	**958**	**(5,389)**	**97,740**

Details regarding the purpose of each reserve within equity are given in note 21.

Group Cash Flow Statement

For the year to 31 December 2015

	Notes	**Year to 31 December 2015 £000**	Period to 31 December 2014 £000
Loss after taxation		**(7,731)**	(2,380)
Adjustments for:			
Depreciation of property, plant and equipment	10	**143**	65
Amortisation of intangible assets	11	**110**	49
Finance income		**(451)**	(92)
Loss on disposal of property, plant and equipment		**2**	—
Finance expense		**—**	5
Share-based compensation		**7**	—
Gain on remeasurement of existing interest on acquisition of subsidiary to fair value	7	**—**	(1,388)
Share of losses in associated undertaking	7	**—**	379
Cash flows from operations before movements in working capital		**(7,920)**	(3,362)
Changes in working capital:			
Decrease/(increase) in inventories		**87**	(115)
Increase in trade and other receivables		**(1,375)**	(240)
Increase in taxation receivables		**(2,389)**	(234)
Increase in trade and other payables		**2,524**	133
Cash outflow from operating activities		**(9,073)**	(3,818)
Cash flows from investing activities			
Purchases of property, plant and equipment	10	**(845)**	(264)
Purchase of software and other intangibles	11	**(14)**	—
Loan advanced		**—**	(1,076)
Acquisition of subsidiaries net of cash acquired		**—**	238
Acquisition of non-controlling interest		**(402)**	—
Interest received		**170**	92
Monies placed on deposit		**(80,657)**	(3,007)
Net cash outflow from investing activities		**(81,748)**	(4,017)
Cash flows from financing activities			
Proceeds from issues of ordinary share capital		**64,751**	38,100
Expenses on issue of shares	19	**(976)**	(937)
Repayment of loan		**—**	(500)
Interest paid	6	**—**	(5)
Net cash inflow from financing activities		**63,775**	36,658
(Decrease)/increase in cash and cash equivalents		**(27,046)**	28,823
Cash and cash equivalents at the start of the year		**28,823**	—
Cash and cash equivalents at the end of the year	16	**1,777**	28,823

Company Cash Flow Statement
For the year to 31 December 2015

	Notes	Year to 31 December 2015 £000	Period to 31 December 2014 £000
Loss after taxation		**(4,224)**	(1,165)
Adjustments for:			
Depreciation of property, plant and equipment	10	**10**	—
Share-based consideration		**7**	—
Impairment of investment	12	**986**	—
Finance income		**(451)**	(92)
Finance expense		**—**	5
Cash flows from operations before movements in working capital		**(3,672)**	(1,252)
Changes in working capital:			
Increase in trade and other receivables		**(1,466)**	(194)
Increase in taxation receivables		**(445)**	(91)
Increase in trade and other payables		**2,352**	417
Cash outflow from operating activities		**(3,231)**	(1,120)
Cash flows from investing activities			
Purchases of property, plant and equipment	10	**(375)**	(4)
Acquisition of subsidiaries net of cash acquired		—	(32)
Investment in share capital in subsidiary	12	**(191)**	—
Acquisition of non-controlling interest	12	**(402)**	—
Purchase of intangible fixed assets	11	**(1,076)**	—
Loans to subsidiary undertakings	12	**(6,189)**	(3,803)
Interest received		**170**	92
Monies placed on deposit		**(80,657)**	(3,007)
Net cash outflow from investing activities		**(88,720)**	(6,754)
Cash flows from financing activities			
Proceeds from issues of ordinary share capital	19	**64,751**	38,100
Expenses on issue of shares	19	**(976)**	(937)
Repayment of loan	11	**1,076**	(500)
Interest paid	6	**—**	(5)
Net cash inflow from financing activities		**64,851**	36,658
(Decrease)/increase in cash and cash equivalents		**(27,100)**	28,784
Cash and cash equivalents at the start of the year		**28,784**	—
Cash and cash equivalents at the end of the year	16	**1,684**	28,784

Notes to the Financial Statements

For the year ended 31 December 2015

1. General information

4D pharma plc (the "Company") is an AIM-quoted company incorporated and domiciled in the UK. The locations and principal activities of the subsidiaries are set out in note 12. The Company is incorporated in England and Wales. The registered office is Third Floor, 9 Bond Court, Leeds LS1 2JZ. These Group financial statements consolidate those of the Company and its subsidiaries (together referred to as the "Group" and individually as "Group entities") for the year ended 31 December 2015.

The financial statements of 4D pharma plc and its subsidiaries (the "Group") for the year ended 31 December 2015 were authorised for issue by the Board of Directors on 30 March 2016 and the Statement of Financial Position was signed on the Board's behalf by Duncan Peyton.

The Company has elected to take the exemption under section 408 of the Companies Act 2006 not to present the parent company's Statement of Comprehensive Income.

The significant accounting policies adopted by the Group are set out in note 3.

2. Basis of preparation

(a) Statement of compliance

The Group's financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the European Union ("IFRS") and IFRS Interpretations Committee ("IFRSIC") interpretations as they apply to the financial statements of the Group for the year ended 31 December 2015 and the requirements of the Companies Act 2006 applicable to companies reporting under IFRS.

(b) Basis of measurement

The parent company and Group financial statements have been prepared on the historical cost basis except for the methods used to measure fair values of assets and liabilities, which are discussed in the respective notes and in note 3.

(c) Going concern

The Chairman and Chief Executive Officer's Review on pages 3 to 5 outlines the business activities of the Group along with the factors which may affect its future development and performance. The Group's financial position is discussed in the Financial Review on page 4 along with details of its cash flow and liquidity. Note 23 to the financial statements sets out the Group's financial risks and the management of those risks.

Having prepared management forecasts and made appropriate enquiries, the Directors are satisfied that the Group has adequate resources for the foreseeable future as the Group is at the start-up stage of its business lifecycle. Accordingly they have continued to adopt the going concern basis in preparing the Group and Company financial statements.

(d) Functional and presentational currency

These financial statements are presented in Pounds Sterling, which is the Group's functional currency. All financial information presented has been rounded to the nearest thousand.

(e) Use of estimates and judgements

The preparation of financial statements requires management to make estimates and judgements that affect the amounts reported for assets and liabilities as at the reporting date and the amounts reported for revenues and expenses during the year. The nature of estimation means that actual amounts could differ from those estimates. Estimates and judgements used in the preparation of the financial statements are continually reviewed and revised as necessary. While every effort is made to ensure that such estimates and judgements are reasonable, by their nature they are uncertain and, as such, changes in estimates and judgements may have a material impact on the financial statements.

The key sources of estimation uncertainty and critical accounting policies that have a significant risk of causing material adjustment to the carrying amount of assets and liabilities within the next financial year are discussed below.

(i) Taxation

Management judgement is required to determine the amount of tax assets that can be recognised, based upon the likely timing and level of future taxable profits together with an assessment of the effect of future tax planning strategies. The carrying value of the unrecognised tax losses at 31 December 2015 was £9.542 million. The value of the additional deferred tax asset not recognised at the year end is £1.908 million. Further information is included in note 8.

(ii) Research and development

Careful judgement by the directors is applied when deciding whether the recognition requirements for development costs have been met. This is necessary as the economic success of any product development is uncertain until such time as technical viability has been proven and commercial supply agreements are likely to be achieved. Judgements are based on the information available at each reporting date which includes the progress with testing and certification and progress on, for example, establishment of commercial arrangements with third parties. In addition, all internal activities related to research and development of new products are continuously monitored by the directors. Further information is included in note 3.

2. Basis of preparation continued

(e) Use of estimates and judgements *continued*

(iii) Intangible fixed assets and goodwill

Estimated impairment of intangible fixed assets and goodwill

The Group tests annually whether intangible fixed assets and goodwill have suffered any impairment, in accordance with the accounting policy stated in note 3. The potential recoverable amounts of intangible fixed assets and goodwill have been determined based on value in use calculations. These calculations require the use of estimates both in arriving at the expected future cash flows and the application of a suitable discount rate in order to calculate the present value of these flows. There is a degree of judgement involved in making assessments of attributable values on acquisition and making impairment assessments. More detail is given in notes 3(h) and 3(i).

Valuation of intangibles on acquisition

Valuation of an early stage drug discovery pharmaceutical company is a notoriously difficult task. Analysis of financial history gives little indication of future performance. Despite this, for products currently in development, sales potentials can be estimated and management has used its own experience as well as consulting with external experts to establish best estimates of sales pricing and revenue forecasting and these can provide the starting point for valuing these products and ensuring that their value has not been impaired. In addition, clinical development risks, measured as product attrition failure rates, incurred as drugs progress through the clinic are reasonably well documented and can be applied as meaningful risk adjusters to account for the chance of development failure.

3. Significant accounting policies

The accounting policies set out below are applied consistently by Group entities.

The Group financial statements are presented in Sterling and all values are rounded to the nearest thousand pounds except where otherwise indicated.

(a) Basis of consolidation

(i) Business combinations

Business combinations are accounted for using the acquisition method as at the acquisition date – i.e. when control is transferred to the Group. Control is the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. In assessing control, the Group takes into consideration potential voting rights that are currently exercisable. The Group measures goodwill at the acquisition date as:

- the fair value of the consideration transferred; plus
- the recognised amount of any non-controlling interests in the acquiree; plus
- if the business combination is achieved in stages, the fair value of the pre-existing equity interest in the acquiree; less
- the net recognised amount (generally fair value) of the identifiable assets acquired and liabilities assumed.

Transaction costs, other than those associated with the issue of debt or equity securities, that the Group incurs in connection with a business combination are expensed as incurred.

(ii) Non-controlling interests

For each business combination, the Group elects to measure any non-controlling interests in the acquiree either:

- at fair value; or
- at their proportionate share of the acquiree's identifiable net assets, which are generally at fair value.

Changes in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as transactions with owners in their capacity as owners. Adjustments to non-controlling interests are based on a proportionate amount of the net assets of the subsidiary. No adjustments are made to goodwill and no gain or loss is recognised in profit or loss.

(iii) Subsidiaries

Subsidiaries are entities controlled by the Group. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

3. Significant accounting policies continued

(a) Basis of consolidation *continued*

(iv) Investments in associates

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. Significant influence is presumed to exist when the Group holds between 20% and 50% of the voting power of another entity.

Investments in associates are accounted for under the equity method and are recognised initially at cost. The cost of the investment includes transaction costs.

The consolidated financial statements include the Group's share of the profit or loss and other comprehensive income of equity-accounted investees, after adjustments to align the accounting policies with those of the Group, from the date that significant influence or joint control commences until the date that significant influence or joint control ceases.

When the Group's share of losses exceeds its interest in an equity-accounted investee, the carrying amount of the investment, including any long-term interests that form part thereof, is reduced to zero, and the recognition of further losses is discontinued except to the extent that the Group has an obligation or has made payments on behalf of the investee.

(v) Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealised income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealised gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

(b) Foreign currency transactions

Transactions in foreign currencies are initially recorded in the functional currency by applying the spot rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency rate of exchange ruling at the reporting date. All differences are recognised in profit or loss.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined.

(c) Segmental reporting

An operating segment is a component of an entity that engages in business activities from which it may earn revenues and incur expenses, whose operating results are regularly reviewed by the Group's chief operating decision maker, being the Chief Executive Officer, to make decisions about resources to be allocated to the segment and assess its performance, and for which discrete financial information is available. As at the reporting date the Group operated as a single segment.

(d) Lease payments

Rentals payable under operating leases, which are leases where the lessor retains a significant proportion of the risks and rewards of the underlying asset, are charged in profit or loss on a straight-line basis over the expected lease term.

Lease incentives received are recognised as an integral part of the total lease expense, over the term of the lease.

(e) Finance income and finance expense

Finance income comprises interest income on funds invested and changes in the fair value of financial assets at fair value through profit or loss. Interest income is recognised as interest accrues using the effective interest rate method.

Finance expense comprises interest expense on borrowings, changes in the fair value of financial assets at fair value through the Group Statement of Comprehensive Income, impairment losses recognised on financial assets and losses on hedging instruments that are recognised in profit or loss. All borrowing costs are recognised using the effective interest method.

(f) Income tax

Income tax expense comprises current and deferred tax. Income tax expense is recognised in the Income Statement except to the extent that it relates to items recognised directly in equity or in other comprehensive income.

Current income tax assets and liabilities for the current and prior years are measured at the amount expected to be recovered from, or paid to, the tax authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted by the reporting date.

3. Significant accounting policies continued

(f) Income tax *continued*

Deferred income tax is recognised on all temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements with the following exceptions:

- where the temporary difference arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and that at the time of the transaction affects neither accounting nor taxable profit or loss; and

- in respect of taxable temporary differences associated with investments in subsidiaries where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred income tax assets and liabilities are measured on an undiscounted basis using the tax rates and tax laws that have been enacted or substantially enacted by the date and which are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled.

Deferred income tax assets are recognised to the extent that it is probable that future taxable profits will be available against which differences can be utilised. An asset is not recognised to the extent that the transfer or economic benefits in the future is uncertain.

(g) Property, plant and equipment

Property, plant and equipment are recognised initially at cost. After initial recognition, these assets are carried at cost less any accumulated depreciation and any accumulated impairment losses. Cost comprises the aggregate amount paid and the fair value of any other consideration given to acquire the asset and includes costs directly attributable to making the asset capable of operating as intended.

Depreciation is computed by allocating the depreciable amount of an asset on a systematic basis over its useful life and is applied separately to each identifiable component.

The following bases and rates are used to depreciate classes of assets:

Office equipment, fixtures and fittings	–	straight line over five years
Plant and machinery	–	straight line over five years
Leasehold improvements	–	straight line over five 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, and are written down immediately to their recoverable amount. Useful lives and residual values are reviewed annually and where adjustments are required these are made prospectively.

A property, plant and equipment item is de-recognised on disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the de-recognition of the asset is included in the Income Statement in the year of de-recognition.

(h) Intangible assets

Intellectual property and patents

The carrying value of intangible fixed assets is reviewed annually for impairment whenever events or changes in circumstances indicate the carrying value may not be recoverable.

At each reporting date the Group reviews the carrying value of its intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss.

Where the asset does not generate cash flows that are independent from other assets, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. A cash-generating unit is the smallest identifiable group of assets that generates cash inflows from other assets or group assets.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset, for which the estimates of future cash flows have not been adjusted.

Notes to the Financial Statements continued

For the year ended 31 December 2015

3. Significant accounting policies continued

(h) Intangible assets *continued*

Intellectual property and patents continued

If the recoverable amount of an asset is estimated to be less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount. An impairment loss is recognised as an expense immediately.

Where an impairment loss subsequently reverses, the carrying amount of the assets is increased to the revised climate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior years. A reversal of an impairment loss is recognised in profit or loss immediately.

Amortisation is provided on the fair value of the asset and is calculated on a straight-line basis over its useful life. Amortisation is recognised within the Statement of Comprehensive Income. Intellectual property and patents acquired as part of a business combination are only amortised once technical viability has been proven and commercial agreements are likely to be achieved.

Patents includes the costs associated with acquiring and registering patents in respect of intellectual property rights. Patents are amortised on a straight-line basis over their useful lives (ten years).

Goodwill

Goodwill on acquisitions, being the excess of the fair value of the cost of acquisition over the Group's interest in the fair value of the identifiable assets and liabilities acquired, is capitalised and tested for impairment on an annual basis.

Any impairment is recognised immediately in profit or loss and is not subsequently reversed. For the purpose of impairment testing goodwill is allocated to cash generating units of 4D pharma plc, which represent the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets.

Software

Software is recognised initially at cost. After initial recognition, these assets are carried at cost less any accumulated amortisation and any accumulated impairment losses. Cost comprises the aggregate amount paid and the fair value of any other consideration given to acquire the asset and includes costs directly attributable to making the asset capable of operating as intended.

Amortisation is computed by allocating the amortisation amount of an asset on a systematic basis over its useful life and is applied separately to each identifiable component. Amortisation is applied to software over five years on a straight-line basis.

The carrying value of software is reviewed for impairment if events or changes in circumstances indicate that the carrying value may not be recoverable, and is written down immediately to their recoverable amount. Useful lives and residual values are reviewed annually and where adjustments are required these are made prospectively.

A software item is de-recognised on disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the de-recognition of the asset is included in the Income Statement in the year of de-recognition.

Internally generated intangible assets

Expenditure on research activities is recognised in the Statement of Comprehensive Income as incurred. Expenditure arising from the Group's development is recognised only if all of the following conditions are met:

- an asset is created that can be identified;
- it is probable that the asset created will generate future economic benefits;
- the development cost of the asset can be measured reliably;
- the Group has the intention to complete the asset and the ability and intention to use or sell it;
- the product or process is technically and commercially feasible; and
- sufficient resources are available to complete the development and to either sell or use the asset.

Where these criteria have not been achieved, development expenditure is recognised in profit or loss in the year in which it is incurred.

The Group has adopted the industry standard approach to the treatment of development expenditure by capitalising development costs at the point where regulatory approval is reached and the probability of generating future economic benefits is high.

Notes to the Financial Statements continued
For the year ended 31 December 2015

3. Significant accounting policies continued
(i) Impairment of assets
An asset's recoverable amount is the higher of an asset's or cash-generating unit's fair value less costs to sell and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. Where the carrying value of an asset exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs of disposal, an appropriate valuation model is used; these calculations are corroborated by valuation multiples, or other available fair value indicators. Impairment losses on continuing operations are recognised in the Income Statement in those expense categories consistent with the function of the impaired asset.

(j) Investments in subsidiaries
Investments in and loans to subsidiaries are stated in the Company's Statement of Financial Position at cost less provision for any impairment.

(k) Inventories
Inventories are stated at the lower of cost and net realisable value. Cost based on latest contractual prices includes all costs incurred in bringing each product to its present location and condition. Net realisable value is based on estimated selling price less any further costs expected to be incurred to disposal. Provision is made for slow-moving or obsolete items.

(l) Cash, cash equivalents and short-term investments
Cash and cash equivalents comprise cash at hand and deposits with maturities of three months or less. Short-term investments comprise deposits with maturities of more than three months, but no greater than twelve months.

(m) Trade and other payables
Trade and other payables are non-interest bearing and are initially recognised at fair value. They are subsequently measured at amortised cost using the effective interest rate method.

(n) Financial assets and liabilities
Financial assets and liabilities are recognised when the Group becomes party to the contracts that give rise to them and are classified as financial assets and liabilities at fair value through the Group Statement of Comprehensive Income. The Group determines the classification of its financial assets and liabilities at initial recognition and re-evaluates this designation at each financial year end.

A financial asset or liability is generally de-recognised when the contract that gives rise to it is settled, sold or cancelled or expires.

At the year end, the Group had no financial assets or liabilities designated at fair value through the Group Statement of Comprehensive Income.

(o) Share-based payments
Equity settled share-based payment transactions are measured with reference to the fair value at the date of grant, recognised on a straight line basis over the vesting period, based on the Company's estimate of shares that will eventually vest. Fair value is measured using a suitable option pricing model.

At each reporting date before vesting, the cumulative expense is calculated, representing the extent to which the vesting period has expired and management's best estimate of the achievement or otherwise of non-market conditions and the number of equity instruments that will ultimately vest. The movement in cumulative expense since the previous reporting date is recognised in the Group Statement of Comprehensive Income, with a corresponding entry in equity.

Where the terms of an equity-settled award are modified or a new award is designated as replacing a cancelled or settled award, the cost based on the original award terms continues to be recognised over the remainder of the original vesting period. In addition, an expense is recognised over the remainder of the new vesting period for the incremental fair value of any modification, based on the difference between the fair value of the original award and the fair value of the modified award, both as measured on the date of modification. No reduction is recognised if this difference is negative.

Where awards are granted to the employees of the subsidiary company, the fair value of the awards at grant date is recorded in the Company's financial statements as an increase in the value of the investment with a corresponding increase in equity via the share-based payment reserve.

3. Significant accounting policies continued

(p) Share capital

Proceeds on issue of shares are included in shareholders' equity, net of transaction costs. The carrying amount is not remeasured in subsequent years.

(q) New accounting standards and interpretations

Adoption of IFRS

The Group and Company financial statements have been prepared in accordance with IFRS, IAS and IFRS Interpretations Committee ("IFRSIC") effective as at 31 December 2015. The Group and Company have not chosen to adopt any amendments or revised standards early.

IFRS issued but not yet effective

At the date of issue of these financial statements, the following accounting standards and interpretations, which have not been applied, were in issue but not yet effective. The directors do not anticipate that adoption of these will have a material impact on the financial statements.

Amendments to IFRS 11	Accounting for Acquisitions of Interests in Joint Operations
Amendments to IAS 16 and 38	Clarification of Acceptable Methods of Depreciation and Amortisation
Amendments to IAS 27	Equity Method in Separate Financial Statements
Amendments to IFRS 10 and IAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture
Various Standards	Annual Improvements to IFRSs 2012–2014 Cycle
Amendments to IFRS 10, IFRS 12 and IAS 28	Investment Entities: Applying the Consolidation Exception
Amendments to IAS 1	Presentation of Financial Statements – Disclosure Initiative
IFRS 15	Revenue from Contracts with Customers
IFRS 9	Financial Instruments

4. Operating loss

By nature:	**31 December 2015 £000**	Period to 31 December 2014 £000
Operating loss is stated after charging :		
Research and development expense	**6,895**	1,823
	6,895	1,823
Depreciation on property, plant, and equipment	**143**	65
Amortisation of intangible assets	**110**	49
Loss on disposal of property, plant and equipment	**2**	—
Staff costs (see note 5)	**1,083**	520
Foreign exchange (gains)/losses	**(82)**	3
Operating lease rentals:		
Land and buildings	**121**	148
Auditor's remuneration	**30**	30
Legal and professional	**1,106**	357
Consultancy	**224**	202
Other costs	**878**	279
	3,615	1,653
Auditor's remuneration:		
Audit services:		
- Fees payable to Company auditor for the audit of the parent and the consolidated accounts	**14**	18
- Auditing the financial statements of subsidiaries pursuant to legislation	**14**	12
- Non-audit services		
Other services	**2**	—
Total auditor's remuneration	**30**	30

Notes to the Financial Statements continued
For the year ended 31 December 2015

5. Staff costs

	Year to 31 December 2015 £000	Period to 31 December 2014 £000
Wages and salaries	**971**	470
Social security costs	**97**	50
Pension contributions	**8**	—
Share-based compensation	**7**	—
	1,083	520
Directors' remuneration (including benefits in kind) included in the aggregate remuneration above comprised:		
Emoluments for qualifying services	**260**	264

Directors' emoluments (excluding social security costs, but including benefits in kind) disclosed above include £101,000 (period to 31 December 2014: £97,000) paid to the highest paid director.

The directors were not granted any share options in the year ended 31 December 2015 or the period ended 31 December 2014 and none of the directors held any share options at 31 December 2015.

An analysis of the highest paid director's remuneration is included in the Report of the Remuneration Committee.

The average number of employees during the year (including directors) was as follows:

Group	Year to 31 December 2015 Number	Period to 31 December 2014 Number
Directors	**4**	4
Laboratory and administrative staff	**20**	9
	24	13

6. Finance income and finance expense

	Year to 31 December 2015 £000	Period to 31 December 2014 £000
Finance income		
Bank interest receivable		
Finance expense	**451**	92
Loan interest payable	**—**	(5)
	451	87

Bank interest receivable includes £280,818 (period to 31 December 2014: £12,000) which is receivable after the year end.

7. Interest in associate

In January 2014 the Group acquired a non-controlling interest in 4D Pharma Research Limited when it purchased 46% of the ordinary share capital. 4D Pharma Research Limited subsequently became a subsidiary of the Group.

	Year to 31 December 2015 £000	Period to 31 December 2014 £000
Cash consideration of acquisition	**—**	(500)
Share of losses in the associated undertaking	**—**	379
	—	(121)
Fair value of identifiable net assets on date associate became a subsidiary	**—**	1,509
Gain on measurement of existing interest to fair value on acquisition of subsidiary	**—**	1,388

Notes to the Financial Statements continued

For the year ended 31 December 2015

8. Taxation

The tax credit is made up as follows:

	Year to 31 December 2015 £000	Period to 31 December 2014 £000
Current income tax		
Total current income tax	**(1,398)**	—
Adjustment in respect of prior years	**(930)**	
Current deferred tax		
Current year charge	**—**	—
Total deferred tax	**—**	—
Total income tax credit recognised in the year	**(2,328)**	—

The income tax credit can be reconciled to the accounting loss as follows:

	Year to 31 December 2015 £000	Period to 31 December 2014 £000
Loss before taxation	**(10,059)**	(2,380)
Tax at standard rate of 20% (period to 31 December 2014: 20%)	**(2,012)**	(476)
Effects of:		
Expenses not deductible for tax purposes	**7**	100
Enhanced research and development expenditure	**(1,276)**	(18)
Gains not chargeable to tax	**—**	(277)
Bank interest	**—**	(55)
Property, plant, equipment and software timing differences	**(40)**	(206)
Tax losses carried forward to future years	**1,066**	932
Utilised losses from prior years	**234**	—
Adjustment in respect of prior years	**(930)**	—
Effects of variation on tax reclaims over the standard rate	**623**	—
Tax income tax credit recognised in the year	**(2,328)**	—

At 31 December 2015, the Group had tax losses available for carry forward of approximately £9.542 million (period to 31 December 2014: £4.662 million). The Group has not recognised deferred tax assets relating to such earned forward losses of approximately £1.908 million (period to 31 December 2014: £0.932 million).

At 31 December 2015, the Company had tax losses available for carry forward of approximately £3.740 million (period to 31 December 2014: £0.745 million). The Group has not recognised deferred tax assets relating to such earned forward losses of approximately £0.748 million (period to 31 December 2014: £0.149 million).

Group's management considers that there is insufficient evidence of future taxable income, taxable temporary differences and feasible tax-planning strategies to utilise all of the cumulative losses and therefore it is not considered certain that the deferred tax assets will be realised in full. If future income differs from current projections, this could significantly impact the tax charge or benefit in future years.

9. Loss per share

	Year to 31 December 2015 £000	Period to 31 December 2014 £000
Loss for the year attributable to equity shareholders	**(7,547)**	(2,021)
Weighted average number of shares:		
Ordinary shares in issue	**59,823,755**	42,001,850
Basic loss per share (pence)	**(12.62)**	(4.81)

The basic and diluted loss per share are the same as the effect of share options is anti-dilutive.

Notes to the Financial Statements continued

For the year ended 31 December 2015

10. Property, plant and equipment

Group	Fixtures, fittings and office equipment £000	Plant and machinery £000	Leasehold improvements £000	Total £000
Cost				
At 31 December 2014	6	476	—	482
Additions	88	653	104	845
Disposals	—	(4)	—	(4)
Reclassification as intangible assets	—	(1)	—	(1)
At 31 December 2015	**94**	**1,124**	**104**	**1,322**
Depreciation				
At 31 December 2014	—	65	—	65
Provided during the year	6	137	—	143
Released on disposal	—	(1)	—	(1)
At 31 December 2015	6	201	—	207
Net book value:				
At 31 December 2015	**88**	**923**	**104**	**1,115**
At 31 December 2014	**6**	**411**	**—**	**417**

Company	Fixtures, fittings and office equipment £000	Plant and machinery £000	Leasehold improvements £000	Total £000
Cost				
At 31 December 2014	4	—	—	4
Additions	71	200	104	375
At 31 December 2015	**75**	**200**	**104**	**379**
Depreciation				
At 31 December 2014	—	—	—	—
Provided during the year	3	7	—	10
At 31 December 2015	**3**	**7**	**—**	**10**
Net book value:				
At 31 December 2015	**72**	**193**	**104**	**369**
At 31 December 2014	**4**	**—**	**—**	**4**

During the year, the directors reviewed the policy on the treatment of software and have concluded that software should be treated as intangible asset. They have therefore elected to transfer these assets from tangible assets to intangible assets.

11. Intangible assets

Group	Software £000	Goodwill £000	Intellectual property £000	Patents £000	Total £000
Cost					
At 31 December 2014	—	3,316	1,923	1,076	6,315
Additions	14	—	—	—	14
Reclassified from tangible assets	1	—	—	—	1
At 31 December 2015	**15**	**3,316**	**1,923**	**1,076**	**6,330**
Amortisation					
At 31 December 2014	—	—	—	49	49
Provided during the year	2	—	—	108	110
At 31 December 2015	**2**	**—**	**—**	**157**	**159**
Net book value:					
At 31 December 2015	**13**	**3,316**	**1,923**	**919**	**6,171**
At 31 December 2014	**—**	**3,316**	**1,923**	**1,027**	**6,266**

11. Intangible assets continued

Company	Patents £000	Total £000
Cost		
At 31 December 2014	—	—
Acquired	1,076	1,076
At 31 December 2015	**1,076**	**1,076**
Amortisation		
At 31 December 2014	—	—
Provided during the year	—	—
At 31 December 2015	**—**	**—**
Net book value		
At 31 December 2015	**1,076**	**1,076**
At 31 December 2014	—	—

Patent rights were acquired by 4D pharma plc from The Microbiota Company Limited (a 100% subsidiary) for £1.076 million on 22 December 2015; the transaction was at arm's length.

Goodwill amounting to £3.316 million, intellectual property amounting to £1.923 million and patent rights amounting to £1.076 million relate to a cash-generating unit ("CGU"), being 4D Pharma Research Limited (formerly GT Biologics Limited) acquired on 10 June 2014 when the Group acquired 37.5% of the share capital for a total consideration of £1,730,255 and The Microbiota Company Limited acquired on 17 July 2014 when the Group acquired 100% of the share capital.

Goodwill, which has arisen on the business combinations, represents staff and accumulated know-how after fair value has been attributed to all other assets and liabilities acquired. Intellectual property recognised on the business combinations represents bacteria identified by the Group's know-how and processes and at different stages of research and development, from early identification to patented strains of bacteria.

During the year goodwill, intellectual property, patents and associated property, plant and equipment was tested for impairment in accordance with IAS 36 *Impairment of Assets*. The recoverable amount of the CGU exceeds the carrying amount of goodwill, intellectual property, patents and associated property, plant and equipment. The recoverable amount of the CGU has been measured using a value-in-use calculation and, as such, no impairment was deemed necessary. The key assumptions used, which are based on management's past experience, for the value-in-use calculations are those relating to the risk-adjusted net present value of candidates that have been identified as potential future products as at 31 December 2015 and for which estimated potential peak sales have been estimated. The value-in-use calculations are based on the future cash flows from approved risk-based net present value calculations that have been derived from biotechnology industry standard discount factor tables. Valuation of an early stage drug discovery pharmaceutical company is a notoriously difficult task. Analysis of financial history gives little indication of future performance. Despite this, for products currently in development, sales potentials can be estimated and management has used its own experience as well as consulting with external experts to establish best estimates of sales pricing and revenue forecasting and these can provide the starting point for valuing these products and ensuring that their value has not been impaired.

The recoverable amount of goodwill, intellectual property, patents and associated property, plant and equipment exceeds the carrying amount by 947%. The directors consider the peak projected sales to be the most sensitive assumptions used in the impairment reviews. A reduction in excess of 91% in the estimated annual peak sales to be achieved would result in the recoverable amount of the CGU being equal to its carrying amount.

Intangible assets, other than goodwill and intangible assets purchased as part of the acquisition of a subsidiary, are amortised on a straight-line basis over ten years. Amortisation provided during the year is recognised in administrative expenses. Patents amounting to £1.076 million were purchased by The Microbiota Company Limited in 2014 immediately prior to its acquisition by the Group on 17 July 2014 via a loan advanced by 4D pharma plc.

12. Investment and loans to subsidiaries

Non-current assets	Ordinary Shares £000	Loans to subsidiary undertakings £000	Total £000
Company			
At 31 December 2014	2,716	3,803	6,519
Additions in the year	593	—	593
Transferred to current assets	—	(3,803)	(3,803)
Impairment of investments	(986)	—	(986)
At 31 December 2015	**2,323**	**—**	**2,323**
By subsidiary			
4D Pharma Research Limited	2,323	—	2,323
At 31 December 2015	**2,323**	**—**	**2,323**

Effective from 22 December 2015 the patent rights held by The Microbiota Company Limited were sold to 4D pharma plc. The directors have reviewed the carrying value of the investment since the patents rights constituted substantially all the assets in The Microbiota Company Limited and these have been transferred to 4D pharma plc. The outcome of the review is that the directors have impaired the carrying value in full.

Current assets	Loans to subsidiary undertakings £000
Company	
At 31 December 2014	—
Transferred from non-current assets	3,803
Additions in the year	6,189
Repaid during the year	(1,076)
At 31 December 2015	**8,916**
By subsidiary	
4D Pharma Research Limited	8,916
At 31 December 2015	**8,916**

During the year, the nature of the loans to subsidiary companies was reviewed. Following on from this review the Group has agreed that the nature of these means that they should be reclassified as current assets from non-current assets. The fair value of these loans is considered to be that of their current value.

The following addition was settled in cash:

Subsidiary	Principal activity	Date of acquisition	Proportion of voting equity interests acquired	Consideration transferred £000
4D Pharma Research Ltd	Research and development	24 March 2015	16.5%	402

On 24 March 2015 the Group acquired the remaining non-controlling interest for £402,000. The total deficit on the fair value of the non-controlling interest at this point was £462,000. This transaction has resulted in the creation of the other reserve within equity which totals £864,000 and represents the difference between the consideration transferred and the total deficit on the fair value of the non-controlling interest at the date of acquisition.

As detailed in note 24 the acquisition of the non-controlling interest has resulted in a payment from 4D pharma plc to 4D Pharma Research Limited for £191,160.

Notes to the Financial Statements continued

For the year ended 31 December 2015

12. Investment and loans to subsidiaries continued

Subsidiary undertakings	Country of incorporation	Principal activity	**31 December 2015**
4D Pharma Research Limited	Scotland	Research and development	**100%**
The Microbiota Company Limited	England and Wales	Research and development	**100%**
Schosween 18 Limited	England and Wales	Dormant	**100%**

The shares in all the companies listed above are held by 4D pharma plc.

The following wholly owned subsidiaries were dormant and have been wound up during the year:

Subsidiary undertakings	Country of incorporation
GT Prohealth Limited	Scotland
GT Therapeutics Limited	Scotland

13. Inventories

	31 December 2015 Group £000	**31 December 2015 Company £000**	31 December 2014 Group £000	31 December 2014 Company £000
Consumables	**28**	**—**	115	—

The directors consider that the carrying amount of inventories is the lower of cost and market value.

During the year £87,000 (period to 31 December 2014: £Nil) of inventories were expensed to the Income Statement.

14. Trade and other receivables

	31 December 2015 Group £000	**31 December 2015 Company £000**	31 December 2014 Group £000	31 December 2014 Company £000
Prepayments	**2,013**	**1,940**	356	194

The directors consider that the carrying amount of trade and other receivables approximates to their fair value.

15. Taxation receivables

	31 December 2015 Group £000	**31 December 2015 Company £000**	31 December 2014 Group £000	31 December 2014 Company £000
Corporation tax	**2,328**	**477**	—	—
VAT	**295**	**59**	234	91
	2,623	**536**	234	91

The directors consider that the carrying amount of taxation receivables approximates to their fair value.

16. Cash, cash equivalents and deposits

	31 December 2015 Group £000	**31 December 2015 Company £000**	31 December 2014 Group £000	31 December 2014 Company £000
Short-term investments and cash on deposit	**83,664**	**83,664**	3,007	3,007
Cash and cash equivalents	**1,777**	**1,684**	28,823	28,784
	85,441	**85,348**	31,830	31,791

Under IAS 7 Statement of Cash Flows, cash held on long-term deposits (being deposits with maturity of greater than three months and no more than twelve months) that cannot readily be converted into cash has been classified as a short-term investment. The maturity on this investment was less than twelve months at the reporting date.

Cash and cash equivalents at 31 December 2015 include deposits with original maturity of three months or less of £1,777,000 (Group) and £1,684,000 (Company).

The directors consider that the carrying value of cash and cash equivalents approximates their fair value. For details on the Group's credit risk management refer to note 23.

17. Trade and other payables

Current	**31 December 2015 Group £000**	**31 December 2015 Company £000**	31 December 2014 Group £000	31 December 2014 Company £000
Trade payables	**2,891**	**1,808**	1,375	302
Other payables	**23**	**20**	32	29
Taxation and social security	**42**	**24**	23	19
Accruals	**1,353**	**916**	355	67
	4,309	**2,768**	1,785	417

Trade and other payables principally comprise amounts outstanding for trade purchases and ongoing costs. Trade payables are non-interest bearing and are typically settled on 30 to 45-day terms.

The directors consider that the carrying value of trade payables, other payables and accruals approximates to their fair value.

All trade and other payables are denominated in Sterling.

The Group has financial risk management policies in place to ensure that any trade payables are settled within the credit time frame and no interest has been charged by any suppliers as a result of late payment of invoices during the reporting year presented herein.

18. Deferred tax

	31 December 2015 Group £000	**31 December 2015 Company £000**
At 10 January 2014	**—**	**—**
Arising on the fair value acquisition of intellectual property on the acquisition of subsidiaries	**385**	**—**
At 31 December 2014	**385**	**—**
Provided in the year	**—**	**—**
At 31 December 2015	**385**	**—**

Group's management considers that there is insufficient evidence of future taxable income, taxable temporary differences and feasible tax-planning strategies to utilise all of the cumulative losses and therefore it is not considered certain that the deferred tax assets will be realised in full. If future income differs from current projections, this could significantly impact the tax charge or benefit in future years. No deferred tax asset has been recognised due to the uncertainty surrounding its recoverability.

19. Share capital

The Company and the Group	Ordinary shares Number	Share capital £000	Share premium £000	Total £000
Allotted, called up and fully paid ordinary shares of 0.25p				
Shares issued at par between 10 January and 18 January 2014	20,000,000	50	—	50
Shares issued on 18 February 2014	16,550,000	41	16,509	16,550
Expenses of placing on 18 February 2014			(503)	(503)
Shares issued on the acquisition of a subsidiary on 3 June 2014	699,500	2	1,222	1,224
Shares issued on 14 July 2014	14,333,334	36	21,464	21,500
Expenses of placing on 14 July 2014			(433)	(433)
Shares issued on the acquisition of a subsidiary on 17 July 2014	509,285	1	—	1
As at 31 December 2014	**52,092,119**	**130**	**38,259**	**38,389**
Shares issued on 10 February 2015	8,475,610	21	34,729	34,750
Expenses of placing on 10 February 2015	—	—	(487)	(487)
Shares issued on 11 December 2015	3,797,469	10	29,991	30,001
Expenses of placing on 11 December 2015	—	—	(489)	(489)
Ordinary shares as at 31 December 2015	**64,365,198**	**161**	**102,003**	**102,164**

19. Share capital continued
The balances classified as share capital and share premium include the total net proceeds (nominal value and share premium respectively) on issue of the Company's equity share capital, comprising 0.25 pence ordinary shares.

The Company issued in aggregate 20,000,000 ordinary shares of 0.25 pence at par value between 10 January 2014 and 18 January 2014.

The Company raised gross proceeds of £16,550,000 from a placing on 18 February 2014 through the issue of 16,550,000 new ordinary shares at an issue price of 100 pence per share. Issue costs associated with the placing totalled £503,212.

The Company raised gross proceeds of £21,500,000 from a placing on 14 July 2014 through the issue of 14,333,334 new ordinary shares at an issue price of 150 pence per share. Issue costs associated with the placing totalled £433,000.

The Company raised gross proceeds of £34,750,000 from a placing on 10 February 2015 through the issue of 8,475,610 new ordinary shares at an issue price of 410 pence per share. Issue costs associated with the placing totalled £487,000.

The Company raised gross proceeds of £30,000,000 from a placing on 11 December 2015 through the issue of 3,797,469 new ordinary shares at an issue price of 790 pence per share. Issue costs associated with the placing totalled £489,000.

20. Share-based payment reserve

Share-based payment reserve

The Group and the Company	**£000**
At 31 December 2014	—
Share-based compensation	7
At 31 December 2015	**7**

The share-based payment reserve accumulates the corresponding credit entry in respect of share-based payment charges. Movements in the reserve are disclosed in the Group Statement of Changes in Equity.

A charge of £7,000 has been recognised in the Statement of Comprehensive Income for the year (period to 31 December 2014: £Nil).

Share option schemes
The Group operates the following unapproved share option scheme:

4D pharma plc 2015 Long Term Incentive Plan ("LTIP")

– Grant in November 2015

Share options were granted to staff members on 10 November 2015. Share options are awarded to management and key staff as a mechanism for attracting and retaining key members of staff. These options vest over a three-year period from the date of grant and are exercisable until the tenth anniversary of the award. Exercise of the award is subject to the employee remaining a full-time member of staff at the point of exercise.

The fair value benefit is measured using a Black Scholes model, taking into account the terms and conditions upon which the share options were issued.

The Group and the Company	**2015 Number**	2014 Number
Outstanding at the start of the year/period	**—**	—
Granted during the year	**40,909**	—
Outstanding at 31 December	**40,909**	—
Exercisable at 31 December	**—**	—

Weighted average exercise price of options

The Group and the Company	**2015 Pence**	2014 Pence
Outstanding at the start of the year/period	**—**	—
Granted during the year	**0.25**	—
Outstanding at 31 December	**0.25**	—

For the share options outstanding as at 31 December 2015, the weighted average remaining contractual life is 9.9 years.

No share options were exercised during the year (period to 31 December 2014: none) and no share options were exercisable at 31 December 2015 and 31 December 2014.

20. Share-based payment reserve continued

***Share option schemes** continued*

The following table lists the inputs to the models used for the year ended 31 December 2015:

The Group and the Company	2015
Expected volatility	**52.5%**
Risk-free interest rate	**0.87%**
Expected life of options	**3 years**
Weighted average exercise price	**0.25p**
Weighted average share price at date of grant	**770p**

The expected life of the options is based on historical data and is not necessarily indicative of exercise patterns that may occur. The expected volatility reflects the assumption that the historical volatility is indicative of future trends, which may also not necessarily be the actual outcome.

No dividends were assumed to be paid in the foreseeable future.

The model assumes, within the calculation of the charge, delivery of options that are dependent on a judgemental comparison to the total shareholder return against a specified comparator group of companies upon passing of the vesting period.

No other features of options granted were incorporated into the measurement of fair value.

21. Capital and reserves

The components of equity are as follows:

Called-up share capital

The share capital account includes the par value for all shares issued and outstanding.

Share premium account

The share premium account is used to record amounts received in excess of the nominal value of shares on issue of new shares less the costs of new share issues.

Merger reserve

The merger reserve comprises the premium arising on shares issued as consideration for the acquisition of subsidiary undertakings where merger relief under section 612 of the Companies Act 2006 applies.

Retained earnings

Retained earnings includes the accumulated profits and losses arising from the Group Statement of Comprehensive Income and certain items from other comprehensive income attributable to equity shareholders net of distributions to shareholders.

Non-controlling interest

This reserve includes the accumulated profits and losses arising from the Group Statement of Comprehensive Income and certain items from other comprehensive income attributable to the minority equity shareholders of subsidiary undertakings not wholly owned by the Group.

Other reserve

The other reserve represents the balance arising on the acquisition of the former non-controlling interest in 4D Pharma Research Limited.

Share-based payment reserve

The share-based payment reserve accumulates the corresponding credit entry in respect of share-based compensation charges. Movements in the reserve are disclosed in the Group Statement of Changes in Equity.

Notes to the Financial Statements continued
For the year ended 31 December 2015

22. Commitments
Operating lease commitments
The Group leases premises under non-cancellable operating lease agreements. The future aggregate minimum lease and service charge payments under non-cancellable operating leases are as follows:

	31 December 2015 Group £000	31 December 2015 Company £000	31 December 2014 Group £000	31 December 2014 Company £000
Land and buildings:				
Not later than one year	**126**	**43**	210	—
After one year but not more than five years	**236**	**160**	402	—
	362	**203**	612	—

Capital expenditure
The Group has no committed capital expenditure at 31 December 2015 nor at 31 December 2014.

The Company has no committed capital expenditure at 31 December 2015 nor at 31 December 2014.

Contractual commitments
The Group has the following non-cancellable contractual commitments at the balance sheet date:

	31 December 2015 Group £000	31 December 2015 Company £000	31 December 2014 Group £000	31 December 2014 Company £000
Research and development:				
Not later than one year	**1,011**	**1,011**	—	—
After one year but not more than five years	**396**	**396**	—	—
	1,407	**1,407**	—	—

23. Financial risk management
Overview
This note presents information about the Group's exposure to various kinds of financial risks, the Group's objectives, policies and processes for measuring and managing risk, and the Group's management of capital.

The Board of directors has overall responsibility for the establishment and oversight of the Group's risk management framework. The Executive directors report regularly to the Board on Group risk management.

Capital risk management
The Company reviews its forecast capital requirements on a half-yearly basis to ensure that entities in the Group will be able to continue as a going concern while maximising the return to stakeholders.

The capital structure of the Group consists of equity attributable to equity holders of the parent, comprising issued share capital, reserves and retained earnings as disclosed in note 19 and in the Group Statement of Changes in Equity. Total equity was £92.697 million at 31 December 2015 (period to 31 December 2014: £37.048 million).

The Company is not subject to externally imposed capital requirements.

Liquidity risk
The Group's approach to managing liquidity is to ensure that, as far as possible, it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Group's reputation.

The Group manages all of its external bank relationships centrally in accordance with defined treasury policies. The policies include the minimum acceptable credit rating of relationship banks and financial transaction authority limits. Any material change to the Group's principal banking facility requires Board approval. The Group seeks to mitigate the risk of bank failure by ensuring that it maintains relationships with a number of investment grade banks.

23. Financial risk management continued

***Liquidity risk** continued*

At the reporting date the Group was cash positive with no outstanding borrowings.

Categorisation of financial instruments 31 December 2015	Fixed rate £000	Floating rate £000	Non-interest bearing £000	Total £000
Group				
Cash and cash equivalents	62,211	23,230	—	85,441
Trade and other payables	—	—	(2,914)	(2,914)
	62,211	23,230	(2,914)	82,527
Company				
Cash and cash equivalents	62,211	23,137	—	85,348
Trade and other payables	—	—	(1,828)	(1,828)
	62,211	23,137	(1,828)	83,520

Categorisation of financial instruments 31 December 2014	Fixed rate £000	Floating rate £000	Non-interest bearing £000	Total £000
Group				
Cash and cash equivalents	4,009	27,821	—	31,830
Trade and other payables	—	—	(1,767)	(1,767)
	4,009	27,821	(1,767)	30,063
Company				
Cash and cash equivalents	4,009	27,782	—	31,791
Trade and other payables	—	—	(331)	(331)
	4,009	27,782	(331)	31,460

The values disclosed in the above table are carrying values. The Board considers that the carrying amount of financial assets and liabilities approximates to their fair value.

Interest rate risk

As the Group has no significant borrowings the risk is limited to the reduction of interest received on cash surpluses held at bank which receive a floating rate of interest. The exposure to interest rate movements is immaterial.

Maturity profile

The directors consider that the carrying amount of the financial liabilities approximates to their fair value.

As all financial assets are expected to mature within the next twelve months an aged analysis of financial assets has not been presented.

As all financial liabilities are expected to mature within the next twelve months an aged analysis of financial liabilities has not been presented.

Foreign currency risk

The Group is exposed to currency risk on sales and purchases that are denominated in a currency other than the respective functional currency of the Company. These are primarily US Dollars (USD), Euros (EUR) and Swiss Francs (CHF). Transactions outside of these currencies are limited.

The Group may use forward exchange contracts as an economic hedge against currency risk, where cash flow can be judged with reasonable certainty. Foreign exchange swaps and options may be used to hedge foreign currency receipts in the event that the timing of the receipt is less certain. There were no open forward contracts as at 31 December 2015 or at 31 December 2014 and the Group did not enter into any such contracts during 2015 or 2014.

23. Financial risk management continued

***Foreign currency risk** continued*

The split of Group assets between Sterling and other currencies at the year end is analysed as follows:

Group	2015 GBP £000	2015 USD £000	2015 EUR £000	2015 CHF £000	2015 Total £000	2014 GBP £000	2014 USD £000	2014 EUR £000	2014 Total £000
Cash, cash equivalents and deposits	**81,520**	**—**	**3,921**	**—**	**85,441**	31,830	—	—	31,830
Trade and other payables	**(856)**	**(1,441)**	**(446)**	**(171)**	**(2,914)**	(1,272)	—	(495)	(1,767)
	80,664	**(1,441)**	**3,475**	**(171)**	**82,527**	30,558	—	(495)	30,063

Sensitivity analysis to movement in exchange rates

Given the immaterial net payable balances in foreign currency, the exposure to a change in exchange rate is negligible.

24. Related party transactions

Key management compensation	Year to 31 December 2015 £000	Period to 31 December 2014 £000
Fees for services provided as non-executive directors:		
Salaries and short-term benefits	**58**	70
Employer's national insurance and social security costs	**5**	6
	63	76
Executive directors:		
Salaries and short-term benefits	**202**	192
Employer's national insurance and social security costs	**25**	22
	227	214
Other key management:		
Salaries and short-term benefits	**241**	24
Employer's national insurance and social security costs	**29**	2
Share-based payment charge	**7**	—
	277	26

Group

During the year Aquarius Equity Partners Limited, an entity controlled by Duncan Peyton and Dr Alexander Stevenson, charged the Group £94,206 for consultancy and other office expenses (period to 31 December 2014: £155,549) and were owed £Nil at 31 December 2015 (31 December 2014: £26,735).

During the year, Thomas Engelen charged the Group £9,210 for consultancy services (period to 31 December 2014: £15,015) and was owed £Nil at 31 December 2015 (31 December 2014: £Nil).

In November 2012, Thomas Engelen was issued with 6,372 nil-paid shares in 4D Pharma Research Limited. On purchase of the remaining non-controlling interest in 4D Pharma Research Limited in March 2015 by the Company, the valuation clause associated with these shares was triggered at £30 per share. This resulted in a payment from the Company to 4D Pharma Research Limited for the outstanding value on the shares of £191,160.

On 10 January 2014 a loan of £500,000 carrying an interest rate of 4% above Bank of England base rate was novated by agreement between David Norwood and Schosween 17 Limited (company registered number: 8795203) to the Company. This loan was repaid on 18 February 2014 by 4D pharma plc and £5,178 interest was charged.

Company

Transactions between 100% owned Group companies have not been disclosed as these have all been eliminated in the preparation of the Group financial statements.

25. Subsequent events

On 9 February 2016, the Company purchased the entire issued share capital of Tucana Health Limited, a company based in Cork in Ireland. The consideration will be satisfied by the issue of up to 1,410,603 Company shares, with 410,603 shares to be issued upfront at a price of £7.55, being the average mid-market price of a 4D share for the five business days immediately preceding completion of the acquisition. The remaining consideration shares will be issued subject to the achievement of milestones. The directors recognise that this represents a potential contingent consideration in respect of the acquisition.

A fair value assessment of the acquired assets and liabilities has not yet been completed at the date of approval of the Annual Report and Accounts and so a full disclosure of the valuation of the acquired assets and liabilities has not been made.

Notice of Annual General Meeting

4D pharma plc

(Incorporated and registered in England and Wales with registered number 08840579)

Notice is hereby given that the Annual General Meeting of 4D pharma plc will be held at the Gridiron Building, 1 Pancras Square, London N1C 4AG on 23 May 2016 at 2 p.m. for the purpose of considering and, if thought fit, passing the following resolutions, of which resolutions 1 to 5 will be proposed as ordinary resolutions and resolutions 6 and 7 will be proposed as special resolutions.

Ordinary resolutions

1 That the Company's Annual Report and audited financial statements, and the reports of the directors and auditor, for the year ended 31 December 2015, now laid before this meeting, be and are hereby approved.

2 That Duncan Peyton, who retires by rotation, be and is hereby re-elected as a director of the Company.

3 That RSM UK Audit LLP be and is hereby re-appointed as auditor of the Company, to hold office until the conclusion of the next general meeting at which accounts are laid before the Company.

4 That the directors be and they are hereby authorised to agree the remuneration of the auditor.

5 That, in accordance with section 551 of the Companies Act 2006:

5.1 the directors be and they are hereby generally and unconditionally authorised to exercise all the powers of the Company to allot equity securities (as defined in section 560 of the Companies Act 2006) up to an aggregate nominal value of £54,048 (approximately one-third of the Company's issued share capital at the date of this notice); and

5.2 in addition to the authority granted pursuant to subparagraph 5.1, the directors be and they are hereby generally and unconditionally authorised to exercise all the powers of the Company to allot equity securities up to an aggregate nominal value of £54,048 (approximately one-third of the Company's issued share capital at the date of this notice) in connection with a rights issue offered to holders of equity securities and other persons who are entitled to participate, in proportion (as nearly as may be) to their then holdings of equity securities (or, as appropriate, the numbers of such securities which such other persons are for those purposes deemed to hold), subject only to such exclusions or other arrangements as the directors may feel necessary or expedient to deal with treasury shares, fractional entitlements or legal or practical problems under the laws of, or the requirements of any recognised regulatory body of, or any stock exchange in, any territory,

provided that both such authorities shall (unless previously revoked, varied or renewed) expire on the earlier of the date of the next Annual General Meeting of the Company and 23 August 2017, save that, in respect of either authority, the Company may before such expiry make an offer or agreement which would or might require equity securities to be allotted after such expiry and the directors may allot equity securities in pursuance of such an offer or agreement as if the authority conferred hereby had not expired.

These authorities are in substitution for any and all authorities previously conferred upon the directors for the purposes of section 551 of the Companies Act 2006, without prejudice to any allotments made pursuant to the terms of such authorities.

Notice of Annual General Meeting continued

Special resolutions

6 That, conditionally upon the passing of resolution 5 above, in accordance with sections 570 and 573 of the Companies Act 2006, the directors be and they are hereby given power to allot equity securities (as defined in section 560 of the Companies Act 2006) pursuant to the authority conferred by resolution 5 above, and to sell treasury shares, as if section 561 of the Companies Act 2006 did not apply to such allotment or sale, provided that this power shall be limited to:

6.1 the allotment or sale of equity securities for cash in connection with or pursuant to an offer to the holders of equity securities and other persons entitled to participate, in proportion (as nearly as may be) to their then holdings of equity securities (or, as appropriate, the numbers of such securities which such other persons are for those purposes deemed to hold), subject only to such exclusions or other arrangements as the directors may feel necessary or expedient to deal with treasury shares, fractional entitlements or legal or practical problems under the laws of, or the requirements of any recognised regulatory body of, or any stock exchange in, any territory; and

6.2 the allotment or sale of equity securities (otherwise than pursuant to subparagraph 6.1) for cash up to a maximum nominal value of £16,215 (approximately 10% of the Company's issued share capital at the date of this notice),

and shall (unless previously revoked, varied or renewed) expire on the earlier of the date of the next Annual General Meeting of the Company and 23 August 2017, save that the Company may before such expiry make an offer or agreement which would or might require equity securities to be allotted or sold after such expiry and the directors may allot or sell equity securities in pursuance of such an offer or agreement as if the power conferred hereby had not expired.

7 That the Company be and is hereby generally authorised pursuant to section 701 of the Companies Act 2006 to make market purchases (as defined in section 693(4) of the Companies Act 2006) of its ordinary shares of 0.25 pence provided that:

7.1 the Company does not purchase more than 9,722,236 ordinary shares of 0.25 pence (approximately 14.99% of the Company's issued share capital at the date of this notice);

7.2 the Company does not pay for any such ordinary share less than its nominal value at the time of purchase; and

7.3 the Company does not pay for any such ordinary share more than 5% above the average of the closing mid-market price for ordinary shares of 0.25 pence for the five business days immediately preceding the date on which the Company agrees to buy the shares concerned, based on the share prices published in the Daily Official List of the London Stock Exchange or the AIM supplement thereto.

The authority conferred by this resolution shall (unless previously revoked, varied or renewed) expire on the earlier of the date of the next Annual General Meeting of the Company and 23 August 2017, save that the Company may before such expiry make a contract to purchase shares which will or may be executed wholly or partly after the expiry of such authority, and may make a purchase of shares in pursuance of any such contract, as if such authority had not expired.

By order of the Board

Laurence Dale
Company Secretary
Registered office

Third Floor
9 Bond Court
Leeds LS1 2JZ

18 April 2016

Notes to the Notice of Annual General Meeting

1. A member entitled to attend and vote at the meeting is also entitled to appoint one or more proxies of their own choice to exercise all or any of their rights to attend, speak and vote on their behalf at the meeting. A member can only appoint a proxy using the procedures set out in these notes and the notes to the accompanying form of proxy.

2. A member may appoint more than one proxy in relation to the meeting provided that each proxy is appointed to exercise the rights attached to a different share or shares held by that member. A member may not appoint more than one proxy to exercise rights attached to any one share. The proxy need not be a member of the Company, but must attend the meeting to represent the member. Please refer to the notes to the form of proxy for further information on appointing a proxy, including how to appoint multiple proxies.

3. In the absence of instructions, the person appointed proxy may vote or abstain from voting as he/she thinks fit on the specified resolutions and, unless otherwise instructed, may also vote or abstain from voting on any other matter (including amendments to the resolutions) which may properly come before the meeting.

4. In the case of joint holders of a share, the vote of the senior who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of the other joint holders. For this purpose, seniority is determined by the order in which the names of the holders stand in the Company's register of members in respect of the joint holding.

5. Any corporation which is a member can appoint one or more corporate representative who may exercise on its behalf all of its powers as a member, provided that each representative is appointed to exercise the rights attached to a different share or shares held by the member.

6. Pursuant to regulation 41 of the Uncertificated Securities Regulations 2001 (as amended), the Company specifies that only those members registered on the register of members at 6.00 p.m. on 19 May 2016 (the "Specified Time") (or if the meeting is adjourned to a time more than 48 hours after the Specified Time, taking no account of any part of a day that is not a working day, by 6.00 p.m. on the day which is two working days prior to the time of the adjourned meeting) shall be entitled to attend and vote thereat in respect of the number of shares registered in their name at that time. If the meeting is adjourned to a time not more than 48 hours after the Specified Time (taking no account of any part of a day that is not a working day), that time will also apply for the purposes of determining the entitlement of members to attend and vote (and for the purposes of determining the number of votes they may cast) at the adjourned meeting. Changes to the register after the relevant deadline shall be disregarded in determining rights to attend and vote.

Appointment of proxy using hard copy proxy form

7. Members may appoint a proxy or proxies by completing and returning a form of proxy by post to the offices of the Company's registrar using the accompanying reply-paid envelope; or in an envelope addressed to Capita Asset Services, PXS, 34 Beckenham Road, Beckenham, Kent BR3 4TU; or by delivering a form of proxy by hand to such address during normal business hours. In the case of a member which is a corporation, the proxy form must be executed under its common seal or signed on its behalf by a duly authorised officer or an attorney. Any power of attorney or any other authority under which the proxy form is signed (or a copy of such power of authority certified in accordance with the Powers of Attorney Act 1971) must be included with the proxy form. Any such power of attorney or other authority cannot be submitted electronically.

8. To be effective, the appointment of a proxy, or the amendment to the instructions given for a previously appointed proxy, must be received by the Company's registrar by the method outlined in note 7 above no later than 2 p.m. on 19 May 2016. If you submit more than one valid proxy appointment, the appointment received last before the latest time for the receipt of proxies will take precedence.

Appointment of proxy using CREST electronic proxy appointment service

9. CREST members who wish to appoint a proxy or proxies by utilising the CREST electronic proxy appointment service may do so for the meeting and any adjournment(s) of it by using the procedures described in the CREST Manual (available from www.euroclear.com/site/public/EUI). CREST Personal Members or other CREST sponsored members, and those CREST members who have appointed a voting service provider(s), should refer to their CREST sponsor or voting service provider(s), who will be able to take the appropriate action on their behalf.

10. In order for a proxy appointment made by means of CREST to be valid, the appropriate CREST message (a "CREST Proxy Instruction") must be properly authenticated in accordance with Euroclear UK & Ireland Limited's ("EUI's") specifications and must contain the information required for such instructions, as described in the CREST Manual. The message must be transmitted so as to be received by the issuer's agent (ID: RA10) by the latest time(s) for receipt of proxy appointments specified in this notice. For this purpose, the time of receipt will be taken to be the time (as determined by the timestamp applied to the message by the CREST Applications Host) from which the issuer's agent is able to retrieve the message by enquiry to CREST in the manner prescribed by CREST.

Notes to the notice of Annual General Meeting continued

Appointment of proxy using CREST electronic proxy appointment service continued

11. CREST members and, where applicable, their CREST sponsors or voting service providers should note that EUI does not make available special procedures in CREST for any particular messages. Normal system timings and limitations will therefore apply in relation to the input of CREST Proxy Instructions. It is the responsibility of the CREST member concerned to take (or, if the CREST member is a CREST personal member or sponsored member or has appointed (a) voting service provider(s), to procure that his CREST sponsor or voting service provider(s) take(s)) such action as shall be necessary to ensure that a message is transmitted by means of the CREST system by any particular time. In this connection, CREST members and, where applicable, their CREST sponsors or voting service providers are referred, in particular, to those sections of the CREST Manual concerning practical limitations of the CREST system and timings.

12. The Company may treat as invalid a CREST Proxy Instruction in the circumstances set out in Regulation 35(5)(a) of the Uncertificated Securities Regulations 2001.

Termination of proxy appointments

13. Completion and return of the form of proxy will not preclude a member from attending and voting in person at the meeting.

14. In order to terminate the authority of a proxy, you will need to inform the Company by sending a signed hard copy notice clearly stating your intention to revoke such appointment to the Company's registrar. To be effective, the notice of termination must be received by the Company's registrar by the method outlined in note 7 above no later than 2 p.m. on 20 May 2016.

Voting rights

15. As at 18 April 2016, being the latest practicable date prior to the printing of this notice, the Company's issued capital consisted of 64,858,150 ordinary shares carrying one vote each. Therefore, the total voting rights in the Company as at 18 April 2016 are 64,858,150.

Communications

16. This notice, together with information about the total number of shares in the Company in respect of which members are entitled to exercise voting rights at the meeting as at 18 April 2016, being the latest practicable date prior to the printing of this notice, will be available on the Company's website, www.4dpharmaplc.com.

17. Except as provided above, members who have general queries about the Annual General Meeting should contact Laurence Dale (0113 895 0130; Third Floor, 9 Bond Court, Leeds LS1 2JZ). No other methods of communication will be accepted. Any electronic address provided either in this notice or in any related documents (including the form of proxy) may not be used to communicate with the Company for any purposes other than those expressly stated.

Documents available for inspection

18. There are available for inspection at the registered office of the Company during usual business hours on any weekday (public holidays excepted), and there will be available for inspection at the place of the meeting from at least 15 minutes prior to and until the conclusion of the meeting:

    - copies of the service contracts of Executive directors of the Company; and

    - copies of the letters of appointment of the non-executive directors of the Company.

Explanatory Notes to the Notice of Annual General Meeting

These explanatory notes give further information in relation to the resolutions listed in the enclosed notice of the Company's Annual General Meeting.

Resolution 1 – Receipt of accounts
The directors must lay the Company's accounts, the Directors' Report and the Auditor's Report before the shareholders at a general meeting. This is a legal requirement after the directors have approved the accounts and the Directors' Report, and the auditor has prepared its report.

Resolution 2 – Re-election of Duncan Peyton
In accordance with the Company's articles of association, all directors of the Company who have been appointed since the Company's last Annual General Meeting, and all other directors on a regular basis as set out in the Company's articles of association, seek election (or re-election as the case may be) by the shareholders.

Duncan Peyton, retiring by rotation, offers himself for re-election, in accordance with the Company's articles of association. Details of his CV are on page 6 of the Company's Annual Report.

Resolution 3 – Re-election of RSM UK Audit LLP as auditor
The Board of directors, on the recommendation of its Audit and Risk Committee, recommends the re-election of RSM UK Audit LLP as auditor, to hold office until the next general meeting at which accounts are laid.

Resolution 4 – Remuneration of the auditor
This resolution authorises the directors to agree the remuneration of the auditor.

Resolution 5 – Authority to allot shares
The purpose of resolution 5 is to renew the directors' power to allot shares. Section 551 of the Companies Act 2006 provides that the directors may not allot new shares (other than for employee share schemes) without shareholder authority.

Accordingly, resolution 5 will be proposed as an ordinary resolution to authorise the directors (pursuant to section 551 of the Companies Act 2006):

(i) to allot ordinary shares of 0.25 pence each in the capital of the Company up to a maximum nominal amount of £54,048, being approximately one-third of the nominal value of the ordinary shares in issue on 18 April 2016; and

(ii) in addition to the authority described above, to allot ordinary shares of 0.25 pence each in the capital of the Company up to a maximum nominal amount of £54,048 pursuant to a rights issue in respect of which all shareholders are entitled to participate as nearly as possible in proportion to their holding of shares in the Company at the time.

This authority (unless previously revoked, varied or renewed) will expire on the earlier of the date of the next Annual General Meeting of the Company or 15 months after the date of the passing of the resolution. The directors will exercise the authority to allot only when satisfied that it is in the interests of the Company to do so. The directors have no present intention of allotting further shares.

Were the Company to use the relevant authorities and:

- the number of shares in issue increased, in aggregate, by more than one-third; and
- (as regards their use as a part of a rights issue) the proceeds of the relevant rights issue exceeded one-third (or the relevant specific proportion) of the pre-issue market capitalisation,

then those members of the Board wishing to remain in office would stand for re-election at the next Annual General Meeting.

Explanatory notes to the notice of Annual General Meeting
continued

Resolution 6 – Disapplication of pre-emption rights
Section 561 of the Companies Act 2006 confers on shareholders' rights of pre-emption in respect of the allotment of "equity securities" which are, or are to be, paid up in cash, otherwise than by way of allotment to employees under an employees' share scheme. The provisions of section 561 apply to the ordinary shares of 0.25 pence each of the Company, to the extent that they are not disapplied pursuant to section 570 of the Companies Act 2006. This provision also covers the sale of treasury shares (should the Company elect to hold any) for cash.

It is proposed that the disapplication of these statutory pre-emption rights be approved, as a special resolution, to give the directors power to allot shares without the application of these statutory pre-emption rights, first, in relation to rights issues and, second, in relation to the issue of ordinary shares of 0.25 pence each in the capital of the Company for cash up to a maximum aggregate nominal amount of £16,215 (representing approximately 10% of the nominal value of the ordinary shares in issue on 18 April 2016).

This authority (unless previously revoked, varied or renewed) will expire on the earlier of the date of the next Annual General Meeting of the Company or 15 months after the date of the passing of the resolution.

The directors have no present intention of exercising the authority; in accordance with the National Association of Pension Funds' Corporate Governance Policy and Voting Guidelines for Smaller Companies, they are seeking the authority so as to be able to raise funds at short notice, where appropriate, from the issue of new share capital for the purpose of taking advantage of investment opportunities that may arise.

Resolution 7 – Purchase by the Company of its own shares
The purpose of resolution 7 is to obtain the authority for the Company to make market purchases of its ordinary shares. Under the Companies Act 2006 such an authority must first be sanctioned by an ordinary resolution of the Company in general meeting, but current institutional shareholder voting guidelines require that any such authority should be sanctioned by special resolution.

Accordingly, resolution 7 will be proposed as a special resolution to authorise the Company to purchase a maximum of 9,722,236 ordinary shares (equal to approximately 14.99% of the ordinary shares in issue on 18 April 2016) on AIM at a price per share of not less than 0.25 pence, and not more than 5% above the average of the middle market quotations for ordinary shares of the Company for the five business days immediately preceding the day of purchase. In order to maximise the benefit to be derived by the Company, it would be the directors' intention that any purchases should be made at as low a price (within the limits specified in resolution 7) as they considered reasonably obtainable.

This authority (unless previously revoked, varied or renewed) will expire on the earlier of the date of the next Annual General Meeting of the Company or 15 months after the date of the passing of the resolution.

Pursuant to the Companies Act 2006, the Company can hold the shares which have been repurchased as treasury shares and either resell them for cash, cancel them (either immediately or at a point in the future) or use them for the purposes of its employee share schemes. The directors believe that it is desirable for the Company to have this choice and therefore currently envisage holding any shares purchased under this authority as treasury shares. Holding the repurchased shares as treasury shares will give the Company the ability to resell or transfer them in the future, and so provide the Company with additional flexibility in the management of its capital base. No dividends will be paid on, and no voting rights will be exercised in respect of, treasury shares.

Shares will only be repurchased if the directors consider such purchases to be in the best interests of shareholders generally and that they can be expected to result in an increase in earnings per share. The authority will only be used after careful consideration, taking into account market conditions prevailing at the time, other investment opportunities and the overall financial position of the Company. Shares held as treasury shares will not automatically be cancelled and will not be taken into account in future calculations of earnings per share (unless they are subsequently resold or transferred out of treasury).

If any shares repurchased by the Company are held in treasury and used for the purposes of its employee share schemes, while so required under institutional shareholder voting guidelines, the Company will count those shares towards the limits on the number of new shares which may be issued under such schemes.

Purchases will not be made to the extent that they may affect the eligibility of the Company for continued admission to AIM and it is not the directors' current intention that the Company should stand in the market for any particular year or until any specified number of shares has been acquired.

The purchase of shares by the Company pursuant to these proposals will be a market purchase and thus made through AIM. This means that any shareholder selling shares, even if those shares are subsequently acquired by the Company, will not be subject to different tax considerations from those normally applying to a sale of shares in the market provided that the purchase by the Company is made exclusively through a market maker acting as principal. In that event, for shareholders who held their shares as an investment, the sale proceeds will normally be treated as capital and the normal capital gains tax rules will apply to those sale shares. There will normally be no liability to tax on income unless the shareholder's disposal is by way of trade.