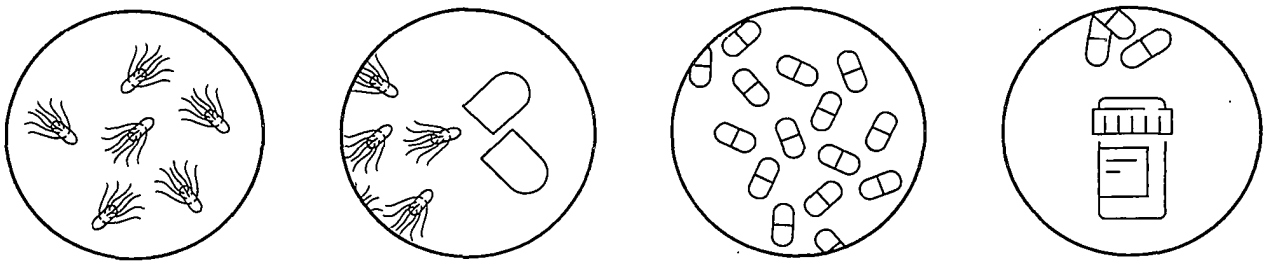
4D pharma plc

developing science, delivering therapies

4D pharma plc

Annual Report and Accounts 2016

(Incorporated and registered in England and Wales with registered no. 08840579)



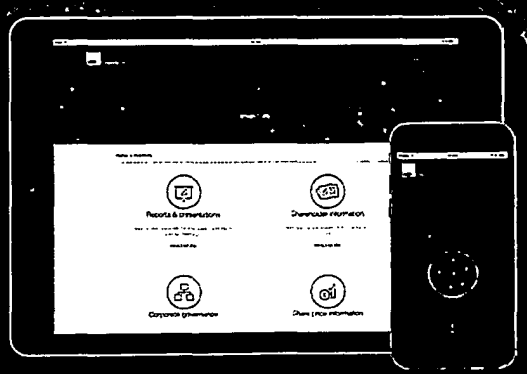
We are pioneers in harnessing bacteria as a novel and revolutionary class of medicines: **Live Biotherapeutics.**

We understand that bacteria in the human intestine – known as the gut microbiome – have an important function in health and disease. More than just aiding in the digestion of food, production of vitamins and maintenance of gut health; they play an important role in the regulation of our immune system.

We are also beginning to understand their role in the maintenance of our central nervous system.

These pivotal interactions mean that Live Biotherapeutics are not just limited to the treatment of gastrointestinal conditions such as IBS and Crohn's Disease. We have also found bacteria that are potentially game-changing treatments for cancer, asthma, autism and autoimmune conditions such as Rheumatoid Arthritis and Multiple Sclerosis.

4D and the Live Biotherapeutics we develop have the potential to transform the way in which many challenging diseases are treated.



Find the most up-to-date information on our website:

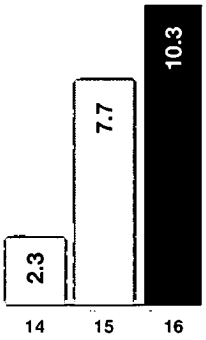
www.4dpharmaplc.com

Highlights

Financial highlights

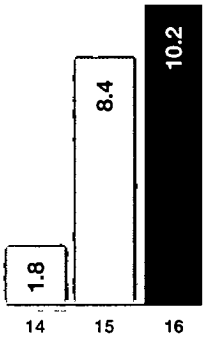
Total comprehensive loss after tax (£m)

£10.3m



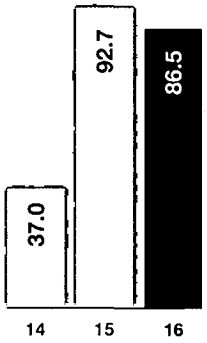
Expenditure on research and development (£m)

£10.2m



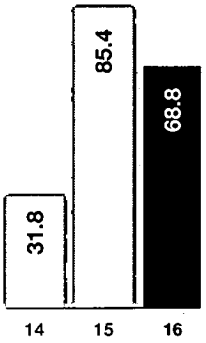
Total equity (£m)

£86.5m



Cash and cash equivalents[1] (£m)

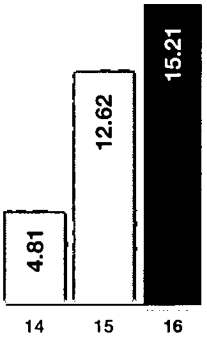
£68.8m



1 includes cash on deposit.

Loss per share[2] (pence)

15.21p



2 basic and diluted.

Operational highlights

- Successful phase 1 clinical trial in respect of Blautix, 4D's proprietary programme for the treatment of Irritable Bowel Syndrome, achieving the primary objective of establishing safety and tolerability
- Analysis of patient data from phase 1 clinical trial showing a positive improvement in patient symptoms over placebo
- Analysis of IBS patient microbiome showing Blautix both stabilises and increases diversity of the microbiome
- Commencement of the phase 1 clinical trial in respect of Thetanix, 4D's proprietary programme for the treatment of Paediatric Crohn's Disease
- Acquisition of 4D Pharma Cork Limited (formerly Tucana Health Limited), a start-up company from University College Cork founded to investigate the use of microbiome signatures to aid the diagnosis and treatment of diseases; the year has also seen the successful development of its proprietary diagnostic platform, MicroDx
- Acquisition of the production assets of Instituto Biomar, S.A. via a newly incorporated Spanish subsidiary, 4D Pharma León, S.L.U., establishing 4D's own development and manufacturing facility in León, Spain

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4D pharma at a Glance

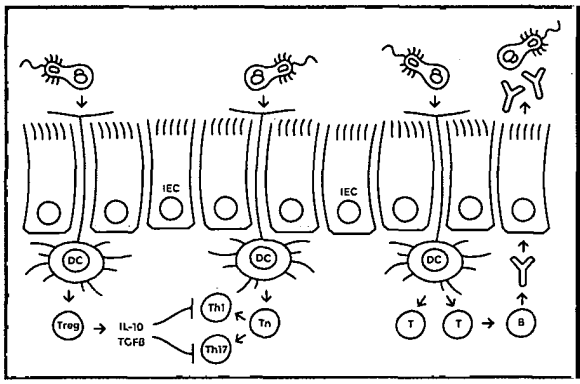
World-leading research.

We are pioneers in harnessing bacteria as a novel and revolutionary class of medicines – called Live Biotherapeutics. From asthma to cancer, our teams conduct world-leading research on how gut bacteria influence a host of different diseases. We believe that what makes us different is the ability to rapidly translate this research into novel therapies for patients.

What are Live Biotherapeutics?

Live Biotherapeutics are a regulated, emerging and disruptive new class of medicines, which have the potential to transform the way in which many important diseases are treated.

Our products are strains of gut commensal bacteria which have been originally isolated from a healthy human. These are encapsulated, administered orally and delivered selectively to the gut where they interact with the patient and exert their therapeutic effects.



Live Biotherapeutics interact with the immune system by a variety of mechanisms. Although typically initiated in the gut, the resulting changes in downstream pathways are diverse and can produce effects in remote areas of the body.

A disruptive new class

Live Biotherapeutics provide an opportunity to offer patients safer and more effective treatment options. They also provide an opportunity to treat diseases that existing therapies are unable to address.

Live Biotherapeutics exert their therapeutic effects in a variety of ways. Some act on the same or similar pathways as existing therapeutics, allowing for safer and efficacious alternatives to marketed therapies. Others hit previously un-drugged disease targets, opening up entirely new avenues of treatment. Unlike traditional medicines, Live Biotherapeutics exert their effects on the host via multiple interactions, and this multifaceted approach gives us a greater chance of treating more patients effectively.

Intrinsically safe

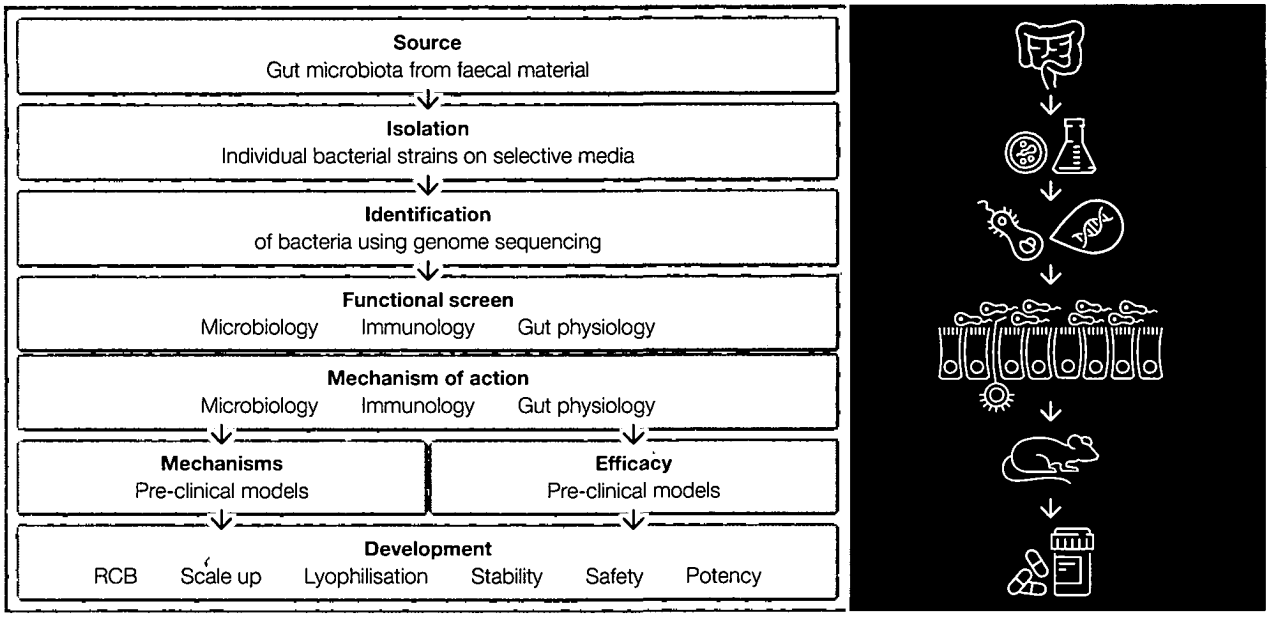
The constant issue in drug development is toxicity, or "side effects". This occurs when a drug "hits" other targets in the body that it was not designed to do. This is why drugs have side effects, leading to sub-optimal treatment regimens or premature termination of development programmes, a concern for both patients and clinicians, as well as the industry as a whole.

Our Live Biotherapeutics are originally sourced and isolated from healthy human donors and consequently have excellent safety profiles. This allows us to safely and rapidly accelerate our therapies into the clinic.

MicroRx – our highly productive discovery platform

Using over two decades of world-leading research into the role of the microbiome and its influence on our immune system, 4D has built a platform – known as MicroRx – to rapidly select those bacteria that may have a therapeutic effect in specific diseases.

MicroRx is able to interrogate our proprietary library of over 4,000 bacterial strains to develop a host-response profile, which is unique to each strain. This allows us to do two things: firstly, to identify strains which are potentially therapeutically relevant and have meaningful effects on the host; secondly, to target specific diseases which are driven by pathways which match the host-response profile of the strain.

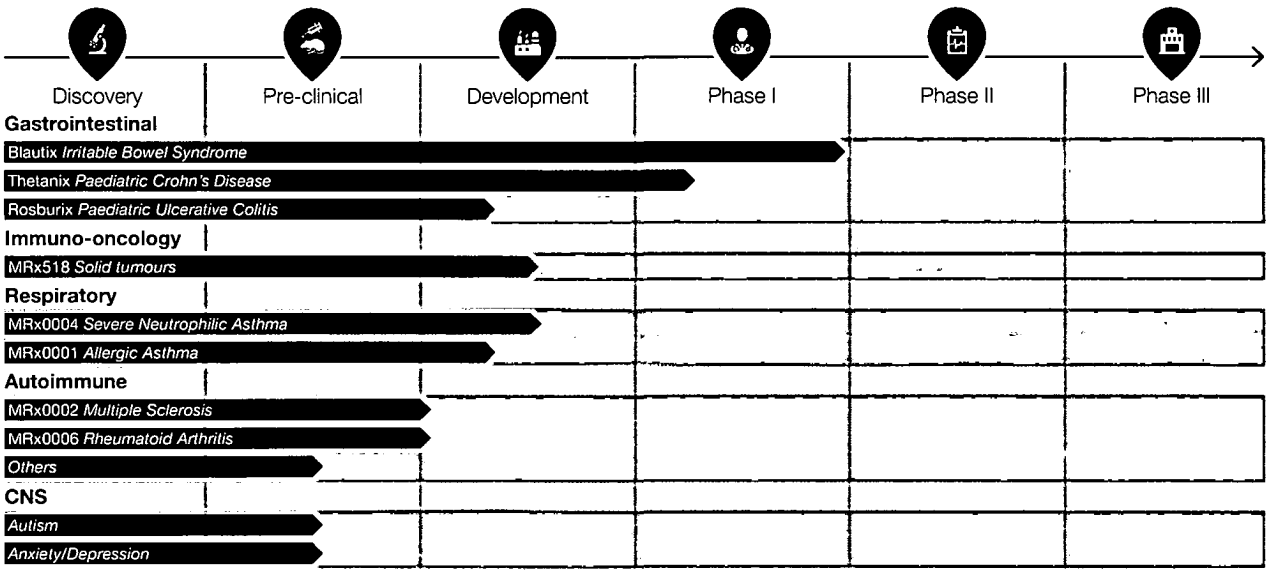


Rapid pre-clinical development

Using industry standard methods, as well as our proprietary disease models, we select our Live Biotherapeutics based on their efficacy and ability to be rapidly translated into a drug. 4D understands the functionality of bacteria and their interaction with the human body. As this functionality has evolved over millions of years, allowing bacteria and host to co-exist, the Live Biotherapeutics developed by 4D have attractive safety profiles.

Unlike traditional drug discovery, which involves multiple rounds of hit and lead optimisation to identify a clinical candidate – a process which can take a number of years – our approach facilitates a telescoping of pre-clinical development. We can progress from concept to clinical trials in as little as 24 months, ultimately helping 4D get its therapies to patients who need them more rapidly.

Development pipeline



Chairman's Statement

David Norwood, Non-executive Chairman

2016 has seen 4D move into clinical trials in patients, and the results reinforce our belief that Live Biotherapeutics will bring safer, more effective treatments to the market.

Strategic objectives

All drug companies want to provide drugs that are safe and effective; they want to do so rapidly and cost-effectively. With the completion of our trial in patients with Irritable Bowel Syndrome (or IBS), and commencement of our trial in Paediatric Crohn's Disease, 4D is doing just that.

The clinical progression has been made without losing focus on expanding and broadening our research base. The year saw major advances in the Group's continuing goal to grow its knowledge and understanding of the microbiome.

In February we acquired 4D Pharma Cork Limited and with it established MicroDx, our proprietary diagnostic platform using microbiome signatures allowing stratification and diagnosis of patient populations. Since then we have swiftly developed the platform, setting up its first clinical trial (also in IBS), whose initial results point for the first time towards a biomarker for IBS.

The year also saw the Group acquire its development facility in León, Spain. Securing this dedicated facility is a vital part of being able to move our programmes through the clinic, and from there to plan for manufacture.

Governance and Board

The Company's Corporate Governance Statement can be found on pages 15 to 17.

Ever since the Company's initial public offering, as the Company and the Group have grown, the Board has maintained a regular review and evaluation of its effectiveness, and that of the wider governance structure of the Group.

As an AIM-quoted company, the Company is not required to comply with the UK Corporate Governance Code. The Board has nevertheless always sought to apply policies and procedures which reflect the principles of good governance and best practice reflected in the Code, as appropriate to the size, nature and stage of development of the Company.

We believe the Company's governance structure has facilitated the growth and development of the Group. However, as set out in the Corporate Governance Statement, as the Group continues to grow, we will maintain this evaluation and take the governance steps necessary to support the Group's development.

Our people

Both a significant cause and effect of our continued successful development is our greater ability to recruit high quality people, across all aspects of the Group. We now employ 85 people over five sites across Europe. I would like to thank everyone in 4D for their contribution to the advances we made in 2016.

The steps we have taken in the year give us huge confidence in our strategy and in our long-term future.

David Norwood
Non-executive Chairman
26 April 2017

Our Business Model and Strategy

Our strategy is to lead pharma in the rapidly emerging field of Live Biotherapeutics, originating and rapidly developing safe, effective products that target disease areas with significant unmet needs.

World-leading research

4D continues to expand and broaden its research base, to grow its knowledge and understanding of the microbiome, and gain greater insight and understanding of the potential of Live Biotherapeutics:

- leveraging our proprietary platform MicroRx, to identify novel bacteria that show therapeutic effect, and understand their mechanism of action;
- building our understanding of the microbiome, potentially the underlying and root cause of disease;
- understanding that the identification of the functionality within a specific bacterial isolate is the therapeutic driver, not the strain itself;
- targeting new biomarkers through the development of MicroDx, our proprietary diagnostic platform using microbiome signatures allowing stratification and diagnosis of patient populations;
- increasing internal research capacity, now employing 68 scientists in five sites across Europe; and
- establishing long-term research collaborations with world-leading academic institutions, such as Baylor College of Medicine in Houston and the APC Microbiome Institute in Cork.

Rapid cost-effective development

With escalating development time and costs impacting healthcare costs and the pharmaceutical industry, 4D is able to rapidly develop its therapeutics and enter the clinic a number of years earlier than traditional pharma:

- pioneering development processes for Live Biotherapeutics, enabling our programmes to enter patient trials in two years;
- our therapeutics originate from a healthy human, and have not shown any significant safety or toxicology issues, significantly reducing development risk; and
- use of novel pre-clinical models to understand the microbiome as a driver of disease, and how our Live Biotherapeutics impact both the microbiome and disease.

Understanding development and delivery

Many novel and emerging technologies have failed to achieve commercialisation, not due to flawed scientific hypothesis, but due to issues with either manufacturing or more simply delivery. At 4D we set out to address these issues early on, to ensure we could maintain flexibility and pace of development:

- our therapeutics are single strain, allowing us to minimise processing and maximise dose to the patients;
- our own development facility with clinical and manufacturing capacity up to 3,000 litres gives us flexibility and speed to the clinic; and
- working with partners who are the global leaders in encapsulation to bring new delivery solutions to market.

Developing and engaging in a new regulatory framework

Live Biotherapeutics are a regulated class of drugs, categorised as a biologic. The regulations are emerging and 4D is working with the regulators to help understand and define this new class of therapeutics:

- building on our experience from conducting two clinical trials in 2016, with a further three trials expected to commence in 2017;
- engaging with key opinion leaders to help educate and understand new approaches to disease, its cause and its treatment; and
- working with regulators to set new standards for safety and delivery of this novel and emerging class of therapeutics.

Building the intellectual property landscape

Given the intensive research-based nature of the business and the pace of development, it is critical that 4D ensures it protects its world-leading position through an aggressive, commercially focussed intellectual property strategy:

- maintaining a progressive approach to patent filing; and
- building its portfolio to 85 granted patents (83 at year end) and over 100 patent applications, covering all lead programmes.

Our Key Performance Indicators ("KPIs")

Although we are still in the early stages of our development, we track a series of metrics focussed primarily on science and product development whilst ensuring the business has sufficient resources which are being effectively allocated to ensure achievement of our strategic goals.

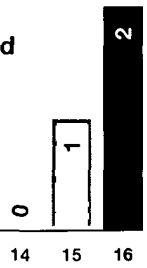
The Board of 4D and management rigorously monitor the progress of our business, maintaining strict discipline throughout the different functions of the business as part of our strategic aim of delivering therapeutic products to the market and becoming a self-sustaining and cash-generative business.

As we are currently in the pre-revenue stage of our development the core focus of the business is on innovation and progression of candidates in our pipeline through the clinic and into approved products.

Number of clinical studies commenced

2

+100%



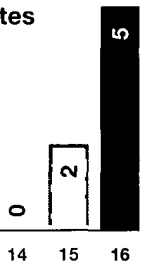
Pipeline progression performance measure – development of research

Long-term value will be created via successful progression of the pipeline through clinical trials into commercial products. We currently have 15 wholly owned Live Biotherapeutic programmes in the pipeline across various stages of development.

Number of candidates *manufactured for* clinical trials

5

+150%



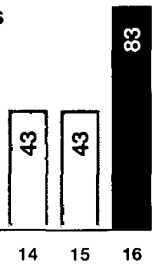
Pipeline progression performance measure – development of product

Without the ability to manufacture the products coming through the pipeline we will not be able to commercialise these.

Number of patents *granted*

83

+93%



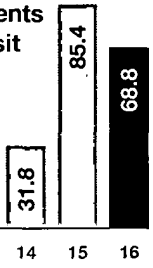
Research and innovation performance measure

4D was born out of innovation and this continues to be a cornerstone of the Group and in 2016 we continued to invest in people, facilities and technology. Our strategic aim is to commercialise Live Biotherapeutic Products and as such a comprehensive portfolio of intellectual property is vital to the Group's ability to achieve this. The Group's portfolio of intellectual property is therefore a valuable asset and a significant amount of resource has been allocated to strengthening this portfolio during the year.

Cash, cash equivalents and cash on deposit

£68.8m

-19%



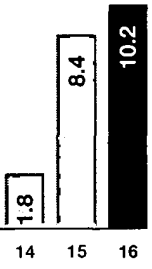
Financial resource measure

We need to ensure that we have sufficient cash in hand and on deposit to cover the anticipated future costs of developing the science through our various strategic milestones.

R&D spend

£10.2m

+21%



Financial allocation of resources

The split of overheads between research and development ("R&D") and other costs, whilst not necessarily highlighting the qualitative aspects of that spend, does enable us to ensure that we are directing sufficient operating funds towards the advancement of our technology.

Risk and Risk Management

As the Group grows and develops, the management and mitigation of risk becomes more important and we have taken significant steps in developing our systems.

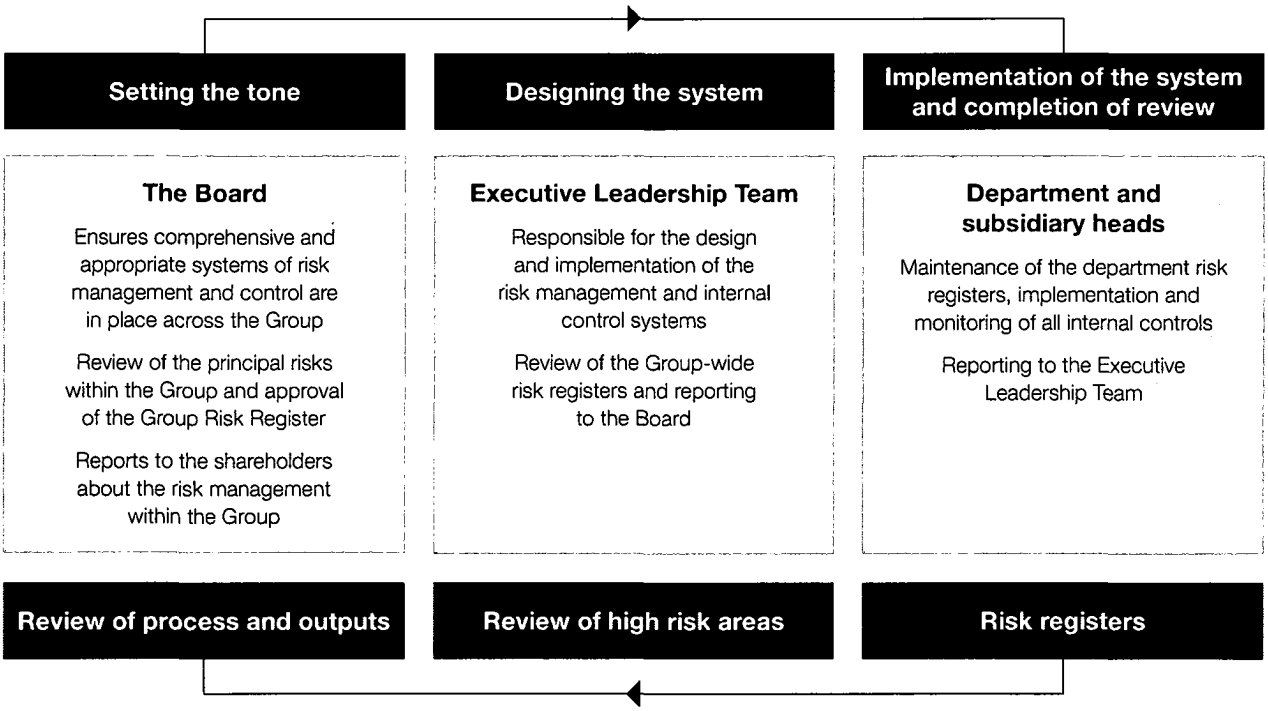
Identifying and understanding key risks to the business

4D operates within a complex regulatory environment, which is subject to change. The nature of biotherapeutic product development exposes us to a number of additional risks and uncertainties which could affect our ability to meet our strategic goals, our business model and our operating environment.

The Board is accountable for carrying out a robust assessment of the principal risks facing the Group, and has developed a risk management framework which provides the structure within which the principal risks affecting our business are managed and sets the tone, culture and appetite for risk.

The key objectives for this process are to ensure that the risk appetite of the Board is embedded throughout the Group and fully understood by all members of the team who have responsibility for managing the risk and making key business decisions. This will then be encoded in systems of internal controls which will seek to mitigate the principal risks that could affect the strategy and operation of our business model and finally to ensure that identified risks are reported to the relevant stakeholders in a timely manner.

We have started to develop and implement a risk management process and we have spent significant time during the year reviewing the risks, clarifying our risk appetite and reviewing the longer-term viability of the business to make sure that we fully understand our risks and are managing them appropriately. These systems are planned to be fully developed and implemented within the next six months along the following lines:



Risk appetite

In order to achieve the right level of reward it is necessary for us to take some risks and with the business being in a pre-revenue stage developing new Live Biotherapeutic Products there is an inherent risk in the science as it develops. However, we are aware that the risk we take needs to be aligned to our risk appetite.

Risk and Risk Management *continued*

Table of principal risks

Third-party patents could limit the Group's freedom to operate

Why is it important?

A third-party patent could be granted with broad claims that affect a 4D technology or product. This could lead to us either having to negotiate a licence or even being unable to commercialise the future product materially affecting future revenues.

Current mitigating actions

4D is very diligent in carrying out searches to identify potential third-party IP. The Group has developed and continues to develop comprehensive and wide-ranging filings of detailed patents across the Group's technology portfolio. There have been a significant number of patents granted since the inception of 4D and we have a number of applications pending.

Change in level of risk

→ No change

Product development in a breakthrough technology could encounter unforeseen delays to programmes

Why is it important?

Live Biotherapeutic Products are a novel and emerging technology; neither 4D nor anyone else has taken a product through development to the marketplace. We are currently working on a number of wholly-owned development programmes of our pipeline which will provide the Group with the opportunity to self-commercialise. Failure to complete development activities to plan may impact on the Group's ability to bring products to market on time which would affect the timings of future revenues and hinder the Group's ability to deliver its strategic goals.

Current mitigating actions

As we complete each stage of development and move through the clinic, we broaden our understanding of how to bring Live Biotherapeutic Products to market. In addition, as we widen our programmes in different disease areas, we further mitigate the risk of failure of a single programme. While Live Biotherapeutic Products are novel, the associated regulatory and clinical pathways are based on existing frameworks. We therefore continue to build and invest in recruiting experience, and have plans to significantly grow our clinical and regulatory teams in the coming year.

Change in level of risk

↓ Decrease

Security and resilience of our IT systems and data

Why is it important?

4D has grown quickly since 2014 and with any rapid growth, a strain can be placed on the emerging IT systems and infrastructure.

Current mitigating actions

We have commissioned and concluded a Group-wide strategic review of our IT systems in terms of security, efficiency and scalability for future growth. We are currently in the process of commencing a roll-out of improved systems across the Group during 2017.

Change in level of risk

→ No change

Failure to gain regulatory approval

Why is it important?

The biotechnology and pharmaceutical markets are highly regulated by government authorities in the UK, the US and Europe. These regulatory requirements are a major factor in determining whether a substance can be developed into a marketable product and the amount of time and cost associated with such development. Even if products are approved, they may still face subsequent regulatory difficulties which could result in delays and therefore financial loss.

Current mitigating actions

We work closely with expert regulatory advisors and as with the clinical team we plan to recruit additional members of the team during 2017 and beyond.

Change in level of risk

No change

Exchange rate movements

Why is it important?

Although 4D reports its results in Sterling, a significant proportion of our operations trade in local currency and as such the Group has an exposure to the Euro and the US Dollar.

Current mitigating actions

We constantly monitor currencies and their movements against Sterling. As the Group is currently pre-revenue the exposure affects the cost of operations and although the size of the exposure is significant we have sufficient cash resources to manage these changes and have planned these prudently into our forward forecasts.

Change in level of risk

Increase

Increase due to the increase in volatility of foreign currency exchange movements during 2016.

Chief Executive Officer's Report

Duncan Peyton, Chief Executive Officer

In 2016, 4D continued to build its world-leading position in Live Biotherapeutics through its understanding of the microbiome, the role of the microbiome in disease, and the development of Live Biotherapeutics as a potential cure.

What 4D is about

In 2014, 4D was set up to investigate the potential of two bacteria that showed promise in modulating the immune system and therefore had potential as a drug. The simple questions 4D asked:

- Do bacteria act like a drug?
- Are they safe?
- Can they be delivered simply?
- If so, are there further bacteria (in addition to the two original bacteria that had been isolated) that could have therapeutic effect in other diseases?

If the answers to the above questions were yes, then 4D had the potential for what could be called a "perfect" drug, a drug that is safe and effective, and easy to deliver; that has a rapid development pathway; and that is capable of reliable and cost-effective production.

Moving through 2016, 4D has a lot of the answers to the above questions.

Our work in understanding how our Live Biotherapeutics function as drugs has made significant progress; we understand not only the pathways and mechanisms our Live Biotherapeutics leverage, but in some instances we also understand and have patented the agent the bacteria produce to exert its effect.

From a safety perspective 4D has worked with the regulators since the Company's inception to understand the potential of Live Biotherapeutics as a drug free from the significant side effects or toxicity normally associated with pharmaceuticals. In 2016, Blautix was shown to be safe and well tolerated in IBS patients.

With the acquisition of our development facility in León, 4D has now manufactured five different Live Biotherapeutics at a clinical scale. We have also worked with our encapsulation partners to bring a new delivery technology to the market enabling simple oral delivery of our drugs to patients participating in our IBS and Paediatric Crohn's trials.

4D also understands that there are additional bacteria that have the potential to impact disease as a Live Biotherapeutic. Our proprietary platform, MicroRx, has identified Live Biotherapeutics that in industry standard models demonstrate therapeutically relevant effects in diseases such as cancer and asthma and autoimmune conditions such as Rheumatoid Arthritis and Multiple Sclerosis.

The questions originally asked in 2014 are just as relevant in 2016; however, the research and development 4D has undertaken have raised more.

Understanding disease – targeting cures

IBS is not a well understood disease, with calls for better diagnostics and more targeted drugs.

It is a functional bowel disorder characterised by discomfort, pain and changes in bowel habits. Symptoms can be mild, moderate or severe. Mild symptoms, which occur infrequently, can sometimes interfere with normal daily functioning. Moderate symptoms are more intense, occur more frequently, and often interfere with daily functioning. Severe symptoms chronically interfere with daily functioning.

The disease is characterised according to symptoms into three subtypes: constipation (IBS-C), diarrhoea (IBS-D) and mixed (IBS-M). The treatments are directed at only one of the symptoms, and are not able to address the root cause of the disease. Furthermore, as no biomarker for IBS exists, current treatment protocols are heavily dependent on patient reported symptoms, with clinicians having difficulty in addressing and prescribing adequate treatment.

It is estimated that 10–15% of the population have IBS, with only 30–35% of subjects seeking medical attention, the majority of which have persistent symptoms.

We believe 4D has taken significant steps in moving a misunderstood disease forward.

In 2014 with our Blautix programme, a drug targeting IBS, 4D pioneered the use of germ-free models to study the effects of human microbiota. This involved the transplantation of IBS patient microbiome to study the effects in a germ-free environment. The results of this work showed that the translation of IBS patient microbiome led to the development of IBS symptoms, pointing towards the microbiome as potentially being the root cause of the disease.

Moving forward to 2016, we conducted a safety and tolerability placebo controlled trial in IBS patients and healthy volunteers (the "Blautix Trial"). As part of that trial 4D also took the opportunity to look, as a secondary measure, at the changes in the microbiome before, during and after dosing and also for any improvement in patient symptoms.

In addition, 4D recognised that diagnosis of IBS is difficult for clinicians; with no recognised biomarker, clinicians are left to make therapeutic decisions on symptoms reported by patients, which may not always be clear or accurate.

In early 2016, 4D began a separate study (the "Diagnostic Study") looking at the difference between IBS patients and healthy volunteers. The aim of this study was to understand if there were differences between the microbiome of these two groups, and whether 4D could exploit this difference as a diagnostic tool.

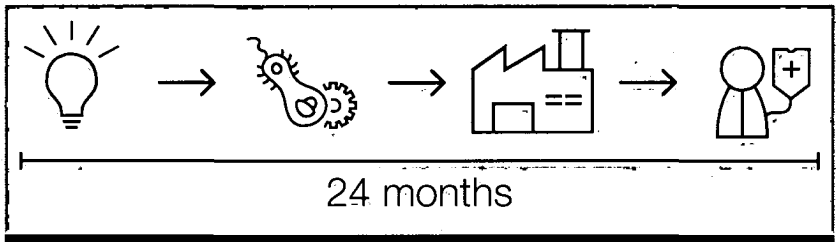
The results of the above trials conducted with IBS patients showed:

- the microbiome of patients and healthy volunteers is significantly different;
- the microbiome of the subtypes of IBS patients (IBS-C, IBS-D and IBS-M) is not significantly different;
- those IBS patients on Blautix showed an increased diversity and stability of microbiome compared to placebo;
- Blautix to be safe and well tolerated, meeting the primary endpoint of the Blautix Trial; and
- those patients on Blautix showed a greater improvement in symptoms than those on placebo.

The above results suggest:

- the microbiome is potentially the root cause of the disease, as shown in the pre-clinical models;
- there are significant differences seen between healthy volunteer and patient microbiomes, further suggesting that the microbiome is potentially the root cause of the disease;
- the difference between the microbiome of healthy volunteers and patients points to a biomarker based on metabolites that could aid diagnosis of IBS; and
- analysis of IBS patient microbiota showed no significant difference between any of the subtypes, suggesting that all subtypes of IBS could potentially be treated by a Live Biotherapeutic intervention, and current characterisation of subtypes is not a true representation of the disease, but rather of the treatments currently available.

We are progressing with our Blautix programme through 2017 with even greater confidence; later in 2017, 4D will begin a larger, multi-centre phase 2 trial.



By reducing development times by up to five years, we can deliver these new drugs to the people that need them faster. In fact, we can go from concept to clinic in just 24 months.

Building development – delivering drugs

An issue seen with any new breakthrough technology are the questions concerning whether it can be manufactured repeatedly and reliably, and whether it is easy to deliver.

We do not use consortia of bacteria, where multiple different types of bacteria are used in combination to try to recreate a "healthy gut"; it is clear every person has a different "healthy gut" and isolates of the same strains from different people can have very different functionality.

The Live Biotherapeutics developed by 4D are single strain; they are selected on the basis of their functionality and potential to impact a specific disease pathway. Using single strains allows for a simpler more straightforward manufacturing process.

From the perspective of delivery, 4D has worked with its partners to develop and (through our trials) prove encapsulation technology that is viable both scientifically and commercially.

The key issue for the emerging microbiome field is to understand development and manufacturing.

Chief Executive Officer's Report *continued*

What people want is a better diagnosis... leading to better, more targeted drugs.

Building development – delivering drugs continued

At 4D the process of manufacture is straightforward: fermentation, separation, lyophilisation and encapsulation. Whilst the core process remains constant, the conditions for each of the programmes is different, requiring different media, processing times, etc. However, to date we have successfully been able to manufacture all of our Live Biotherapeutics that 4D has so far chosen to take in to the clinic. With patient trials completed and several in planning, 4D has addressed the issues surrounding manufacture and delivery; the issue for 4D is flexibility and recognising a lack of pharmaceutical grade facilities capable of producing Live Biotherapeutics at development and commercial scale.

In 2016, 4D decided to delay the clinical development of Rosburix, our programme in Ulcerative Colitis, in favour of our cancer programme. The decision was strategic; it was important that 4D moved away from gastrointestinal disease to diseases not generally associated with the gut (such as cancer and Rheumatoid Arthritis), demonstrating the breadth of the our live programmes and development speed.

From a development pipeline perspective, in 2017 4D plans to have trials commencing in cancer and severe asthma, to have completed the phase 1 trial in Paediatric Crohn's Disease, and to have commenced a phase 2 trial in IBS. In 2018, 4D will potentially add an additional three new clinical programmes.

If 4D worked solely with contract providers, shifting programmes and timings would not have been possible due to capacity and scheduling constraints, nor would 4D be able to find sufficient capacity to address our need going forward.

The reason 4D is confident in meeting its development goals is due to the in-house development and manufacturing capability acquired by 4D during 2016.

In April 4D acquired the production assets of Instituto Biomar, S.A. (or "Biomar"), a Spanish-based contract research organisation specialising in microbial fermentation (see note 12 to the financial statements).

This facility gives the flexibility and scale to take all 4D's current research through the clinic, and gives the Company the capacity to manufacture enough active pharmaceutical ingredient for up to around 20 million capsules per annum.

Better diagnostics – improving patient outcomes

As 4D began to understand more about the therapeutic effect of Live Biotherapeutics and the impact on the microbiome, we recognised the potential in using the microbiome to aid the diagnosis and treatment of disease.

In February 2016 we acquired 4D Pharma Cork (then Tucana Health), a start-up company from University College Cork (see note 12 to the financial statements).

The concept at 4D Pharma Cork was initially to combine our understanding of Live Biotherapeutics (from the research generated by our MicroRx therapeutic platform) with the knowledge held within 4D Pharma Cork, to build a new diagnostic platform, called MicroDx, based around the microbiome.

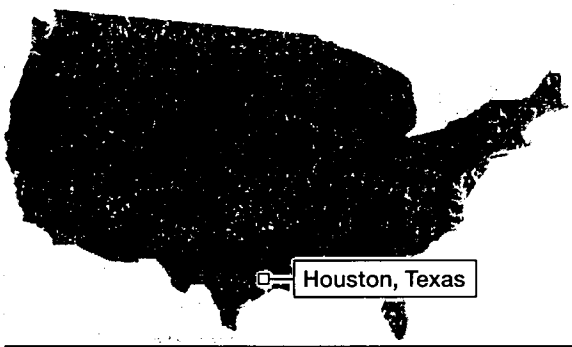
The concept for MicroDx is the ability to identify "signatures" based on the functionality of the gut microbiome and also on metabolite profiles (small molecules produced by the microbiome). This could allow the development of rapid methods of diagnosis, which could be readily transferred into the clinical setting.

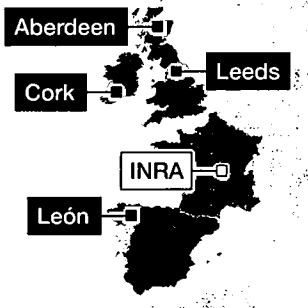
The Diagnostic Trial mentioned earlier was a completely stand-alone trial, independent from the Blautix Trial. The trial was set up to look at the microbiota of patients with IBS and that of healthy volunteers, and from that information investigate the potential for a marker that could distinguish between patients and healthy volunteers.

Whilst the trial is still continuing, interim analysis of data has demonstrated MicroDx is able to differentiate IBS patients from healthy subjects based on metabolite profile.

This work demonstrates the potential within the microbiome to provide markers capable of use in a point of care diagnostic.

4D intends to use the MicroDx IBS test in our Blautix phase 2 trial to help stratify patients and monitor progression, and will look to expand on and include it in its trials for cancer and asthma which start later in 2017.





■ Our locations

□ Our collaborations

Our collaboration in Houston

4D has entered into a long-term collaboration with Diversigen, Inc., a commercial endeavour of Baylor College of Medicine in Houston, a world-renowned health sciences university. With our partner, 4D has established a dedicated germ-free facility to further the development of pre-clinical models of disease.

Increased patent coverage

4D is breaking new ground on a number of fronts, use of bacteria as a drug and mechanisms associated, process development, diagnostics, etc., all of which creates intellectual property.

The development of our patent portfolio in some way reflects the pace of our development; from start up in 2014 we now have 85 granted patents and over 100 applications.

As we continue our understanding and progress in this emerging field, 4D will continue to develop its leading position in intellectual property coverage.

Financial summary

In the year to December 2016, our cash and cash equivalents and short-term deposits reduced from £85.4 million to £68.8 million, with a loss before tax of £11.7 million (compared with £10.1 million in the year to December 2015). Our claim for research and development tax credit was £1.8 million (compared with £1.4 million in the year to December 2015).

Our cash burn for the year was in line with expectation, and reflected among other things the increased costs of taking our most advanced programmes through phase 1 trials and preparing our next wave of programmes for upcoming phase 1 trials.

The Group continues to manage 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. More details on the Group's treasury policies are provided in note 24 to the financial statements.

Outlook

In summary, 2016 saw 4D continue its successful development, building on its existing research and also making strategic acquisitions which we believe will play a vital role in the Company's goal to successfully develop Live Biotherapeutics as safe and effective drugs.

Duncan Peyton
Chief Executive Officer
26 April 2017

Board of Directors

David Norwood
Non-executive Chairman

A R

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 Limited, Proximagen Limited, Synairgen plc, Ilika Technologies Limited, Oxford Catalysts and Plectrum Petroleum (acquired by Cairn Energy plc). He has also acted as seed investor and/or advisor to Wolfson Microelectronics Limited, Nanoco Technologies Limited, 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 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 bio-science 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 in 2005, which made founding investments into Nanoco Technologies Limited, Auralis Limited (subsequently sold to ViroPharma) and Tissue Regenix Group plc.

Alex Stevenson
Chief Scientific Officer

Alex began his career as a microbiologist, working in research for a number of years before joining an NYSE-quoted drug development company. He subsequently moved into pharmaceutical and healthcare investment and has fulfilled a number of 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. These included Tissue Regenix Group plc, C4X Discovery Holdings plc and Brabant Pharma (subsequently sold to Zogenix, Inc.). 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 Limited in 2005.

Thomas Engelen
Non-executive director

A R

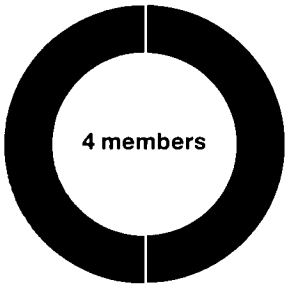
Thomas has been a founder and/or non-executive director of a number of UK life sciences companies including Colonis Pharma Limited, Warneford Partners Limited, Martindale Pharma Limited and Pneumagen Limited. Thomas has supported private equity and other investors in over 50 potential deal transactions, on targets in Europe and the USA, from cash constrained/chapter 11 to cash-rich with enterprise value of up to $1 billion. Before this Thomas 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. Thomas has also acted as non-executive chairman at Akcros Holdings Limited, Penlan Healthcare and Quantum Pharmaceutical.

A Audit and Risk Committee
R Remuneration Committee
■ Chairman

Corporate Governance Statement

This section of the Annual Report describes the Group's corporate governance structures and processes and how they have been applied during the year ended 31 December 2016.

Board composition



Executive directors	2
Non-executive directors	2

The Company's ordinary shares have been admitted to trading on the AIM Market of the London Stock Exchange and the Company is subject to the continuing requirements of the AIM Rules. The UK Corporate Governance Code sets out the principles of good practice in relation to corporate governance which should be followed by companies with a full listing on the London Stock Exchange. Although the Company 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 for Small and Mid-Size Quoted Companies ("QCA Guidelines") 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 Guidelines.

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 14.

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. Thomas previously provided ad hoc consultancy services to the Company's subsidiary 4D Pharma Research Limited, which were consequential to his former role as one of its non-executive directors. Such services ceased in early 2015, prior to 4D Pharma Research Limited becoming a wholly owned subsidiary, and the Board does not believe that such historical services compromise his independence in any way.

The Board has determined that David Norwood is not independent, by virtue only of his holding of ordinary shares in the Company, summarised on page 23. The Board has nevertheless determined that (save only for his holding of ordinary shares) there are no relationships or circumstances which could materially affect or interfere with the exercise of his independent judgement.

The Board remains satisfied with its composition and 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 notes the recommendation in the QCA Guidelines that a company should have at least two independent non-executive directors and should not be dominated by one person or a group of people. The Board believes it meets this recommendation, save only in respect of the holding of ordinary shares in the Company by David Norwood.

Corporate Governance Statement *continued*

Decision making

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.

Material issues are reserved to a decision of the Board, including approval (and review of performance) of the Group's strategic aims and objectives; approval of the annual operating and capital expenditure budgets (and any material changes to them); approval of all financial statements and results; and maintenance of a sound system of internal control and risk management. The implementation of Board decisions and day-to-day operations of the Group are delegated to executive directors.

The Board meets both at regular intervals and also at short notice to consider specific matters (for example proposed acquisitions). 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 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 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.

Appointment and re-election of directors

All directors of the Company have been appointed (or re-appointed) by shareholders; the current non-executive directors were appointed to the Board by resolution of the shareholders of the Company on 5 February 2014 (prior to the admission of the Company shares to trading on AIM on 18 February 2014).

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

Board evaluation

Given its composition and flexibility, the Board has been able, since the admission of the Company's shares to trading on AIM, to maintain a regular evaluation of its effectiveness and that of its Committees. It is believed that the Board and its Committees have functioned well throughout this period, meeting with appropriate regularity and with directors free to voice differing opinions. In particular, the Board still considers its composition to be 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). However, it also considers that the Company is nearing the position where the Board would benefit from additional independent input. The Board is actively considering potential candidates for a further independent non-executive director.

Committees

The Board has established an Audit and Risk Committee and a Remuneration Committee, with formally delegated duties and responsibilities. The Board has, since the admission of the Company's shares to trading on AIM, kept under regular review the possible establishment of a nomination committee. The Board remains of the view that, given the current composition of the Board, it is not appropriate to have a nomination committee. This will continue to be kept under regular review by the Board.

The 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. A report from the Chairman of the Audit and Risk Committee is on page 18.

The 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 and senior management. The Remuneration 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 senior management and determines their terms and conditions of service, including their remuneration and the grant of incentives, having due regard to the interests of shareholders. A report from the Chairman of the Remuneration Committee is on page 20.

The Board believes that, in accordance with the QCA Guidelines, the Audit and Risk Committee and the Remuneration Committee have the necessary character, skills and knowledge to discharge their duties and responsibilities effectively; notwithstanding that (given the overall composition of the Board) there is not a majority of members who are independent non-executive directors. Each Committee is, however, chaired by an independent non-executive director.

Meetings

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	8	2	1
Attendance:			
Executive directors			
Duncan Peyton	8	–	–
Dr Alexander Stevenson	8	–	–
Non-executive directors			
David Norwood	8	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. The primary responsibility for monitoring the quality of internal control has been delegated to the Audit and Risk Committee. Reference is made to the statement on Risk and Risk Management on pages 7 to 9.

Communicating vision and strategy

The directors seek to visit institutional shareholders at least twice a year. In addition, all shareholders can 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.

Report of the Audit and Risk Committee

The Committee acts independently of management to ensure the interests of shareholders are protected in relation to financial reporting, internal controls and risk management.

Members

- Thomas Engelen (Chairman)
- David Norwood

As Chairman of the Audit and Risk Committee, I am pleased to present our report for the year ended 31 December 2016. The Audit and Risk Committee is a sub-committee of the Board and is responsible for reviewing all aspects of the financial reporting of the business and all aspects of internal control. The Committee represents the interests of our shareholders in relation to the integrity of information and the effectiveness of the audit processes in place.

Key responsibilities

The Committee acts independently of management to ensure the interests of shareholders are protected in relation to financial reporting, internal controls and risk management.

The principal duties of the Committee are to:

- monitor the integrity of the Group's financial reporting including the review of significant financial reporting judgements;
- advise the Board on whether, taken as a whole, the Annual Report and Accounts is fair, balanced and understandable;
- advise the Board on principal risks, their mitigation and risk appetite;
- review the robustness of our risk management and internal controls;
- oversee the external audit process including monitoring the auditor's independence, objectivity, effectiveness and performance; and
- approve any engagement by the external auditor outside of the Group's audit.

The Committee manages the relationship with the external auditor on behalf of the Board to ensure that the external auditor continues to be independent, objective and effective in its work, and also considers the re-appointment of the auditor each year.

RSM UK Audit LLP was appointed as auditor in 2014 following a comprehensive tender process. Each year the Committee considers the continued independence of the external auditor and the effectiveness of the external audit process, to determine whether to recommend to the Board that the current auditor be re-appointed.

The Committee has reviewed the external audit process in the year through meetings and reviewing the reports from the external audit team. The Committee has concluded that the external audit process was effective and is satisfied that the scope of the audit is appropriate and that significant judgements have been robustly challenged.

Composition and meetings

The Audit Committee during the year under review has consisted of two non-executive directors. The Committee is chaired by me, Thomas Engelen, with David Norwood as the other member. I am an independent director and have recent and relevant financial experience.

There were two meetings held in the year ended 31 December 2016 in March and December. The March meeting was used to review the year-end external audit and year-end financial reporting and the December meeting to consider the planning for the year end.

Committee meetings are also attended by Stephen Dunbar, the finance director, and representatives from the external auditor.

Significant issues relating to the financial statements

The specific issues considered by the Audit Committee in the year under review, in relation to the financial statements, are shown below.

Business combinations:

During the year the Group has acquired the entire share capital of Tucana Health Limited in addition to acquiring the production assets of Biomar, S.A. via 4D Pharma Leon, S.L.U.

The Committee reviewed and critiqued the accounting judgements and estimates used in accounting for the fair value of the assets acquired as well as the contingent consideration and the purchase price allocations particularly the valuation of acquired intangible assets. The Committee was satisfied that these were reasonable and appropriately applied.

In addition the Committee considered whether the acquisitions should give rise to an additional cash-generating unit ("CGU") for impairment testing purposes and concluded that neither Tucana Health Limited (now 4D Pharma Cork Limited) nor 4D Pharma Leon, S.L.U. are separate CGUs (see note 12).

These matters were addressed by the Committee through the review of reports from external valuation consultants and management. The main assumptions were discussed and challenged.

Valuation of goodwill and other intangible assets:

Testing for goodwill and other intangible assets for potential impairment is complex and requires a number of management estimates and sensitivities to be applied, which inevitably requires judgement and is a recurring matter.

There was a significant amount of work performed during the year, including the development of more sophisticated forecasting tools by management as well as undertaking numerous reviews by external consultants to help more accurately assess the values of intangible assets and goodwill.

The Committee reviewed the reports together with the assumptions, judgements and sensitivities applied to the valuations and underlying models for impairment testing purposes. Following this review and after discussions with management the Committee is satisfied that no impairment charge should be recorded in the year to 31 December 2016 and that the disclosures in the financial statements are appropriate.

Thomas Engelen
Chairman of the Audit and Risk Committee
26 April 2017

Report of the Remuneration Committee

The Committee aims to attract, retain and motivate the executive management of the Company, and set remuneration at an appropriate level.

Members

- Thomas Engelen (Chairman)
- David Norwood

As Chairman of the Remuneration Committee, I am pleased to present our report for the year ended 31 December 2016.

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.

Key responsibilities

The Remuneration Committee is a sub-committee of the Board. Its principal purpose is to determine and agree with the Board the framework and broad policy for remuneration, and to determine the remuneration packages and service contracts of the executive directors, the Company Secretary and such other members of the executive management as it considers appropriate. Among other things, the Committee shall approve the design of, and determine targets for, any performance incentive schemes operated by the Company and approve the awards made under such schemes.

Composition and meetings

During the year the members of the Committee were me, Thomas Engelen, an independent non-executive director, and the non-executive Group Chairman, David Norwood. All members served on the Committee throughout the year and to the date of this report. I was Chairman of the Committee throughout this period.

There was one meeting held of the Committee in the year ended 31 December 2016, held in April. The meeting was convened to consider and review the Group's remuneration policy, and to approve annual awards to senior management under the Group's Long Term Incentive Plan. There were no changes to the remuneration or service agreements of the executive directors during the period.

Policy on executive remuneration

The Committee aims to attract, retain and motivate the executive management of the Company, and set remuneration at an appropriate level to promote the long-term success of the Group, in line with its strategic objectives.

The overall policy of the Board is to ensure that executive management is provided with appropriate incentives to encourage enhanced performance and, 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. 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 executive directors.

Directors' remuneration

The remuneration of the directors who served on the Company's Board during the year to 31 December 2016 is as follows:

	31 December 2016		31 December 2015	
	Base salary and fees £000	Total £000	Base salary and fees £000	Total £000
Executive directors				
Duncan Peyton	**101**	**101**	101	101
Dr Alexander Stevenson	**101**	**101**	101	101
Non-executive directors				
David Norwood	**25**	**25**	25	25
Thomas Engelen	**25**	**25**	33	33
	252	**252**	260	260

There were no bonus or pension schemes for the directors during the year ended 31 December 2016.

Discretionary annual bonus

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

Long-term incentives

The Group operates a long-term share incentive scheme; all Group executive directors and employees are eligible for the granting of awards under the scheme. Details of the awards made under the scheme during the year are provided in note 21 to the financial statements. All such awards vest after three years and are subject to individual performance criteria. There were no awards during the year to the directors of the Company.

Benefits in kind

The Company provides taxable healthcare 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 incentive schemes. The Board 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' interests in share capital

At 31 December 2016, and at the date of this report, David Norwood held 7,000,000 ordinary shares in the Company's share capital, or 10.8% (2015: 10.9%); each of Duncan Peyton and Dr Alexander Stevenson held 6,250,286 ordinary shares in the Company's share capital, or 9.6% (2015: 9.7%); and Thomas Engelen held 500,000 shares in the Company's share capital, or 0.8% (2015: 0.8%).

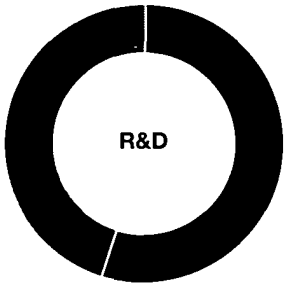
No director was granted any share options in the year ended 31 December 2016; none of the directors held any share options at 31 December 2016.

Thomas Engelen
Chairman of the
Remuneration Committee
26 April 2017

Directors' Report

The directors present their report together with the audited consolidated financial statements, along with the Auditor's Report for the year ended 31 December 2016.

Research and development spend



2016	£10.2m
2015	£8.4m

Pages 1 to 24 inclusive (together with sections of the Annual Report incorporated by reference) comprise a Directors' Report that has been drawn up and presented in accordance with and in reliance upon applicable English company law and the liabilities of Directors in connection with that report shall be subject to the limitations and restrictions provided by such law.

Strategic Report

In accordance with section 414C(11) of the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013, the Group has chosen to set out in the Strategic Report information required by schedule 7 of the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008.

Directors

The directors who held office during the year, and as at the date of signing the financial statements, and brief biographical descriptions of the directors, are set out on page 14.

The beneficial and non-beneficial interests of the directors in the Company's ordinary shares of 0.25 pence are disclosed in the Report of the Remuneration Committee on page 20.

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

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.

Research and development activities

The principal activity of the Group is research and development, a review of which is included in the CEO's Review on pages 10 to 13.

Total research and development spend in the year to 31 December 2016 was £10.2 million (year to 31 December 2015: £8.4 million). No development expenditure was capitalised in the current year or the year to 31 December 2015.

Subsequent events

There have been no important events affecting the Company or the Group since the year end.

Dividends

The directors do not recommend payment of a dividend nor was there a dividend in the year to 31 December 2015.

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 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.

Financial instruments

Details of the Group's financial risk management objectives and policies are disclosed in note 24 to the financial statements.

Substantial shareholders

The Company has been notified of the following interests of shareholders of 3% or more of the issued ordinary share capital of the Company at 31 December 2016, based on the ordinary shares in issue of 64,858,150 (as at 31 December 2015: 64,365,198):

	Number of 0.25 pence ordinary shares as at 31 December 2016	% of issued capital	Number of 0.25 pence ordinary shares as at 31 December 2015	% of issued capital
Woodford Investment Management LLP	**17,514,561**	**27.0**	15,604,321	24.0
Invesco Asset Management Limited	**9,163,617**	**14.1**	9,163,617	14.1
David Robert Norwood	**7,000,000**	**10.8**	7,000,000	10.9
Duncan Joseph Peyton	**6,250,286**	**9.6**	6,250,286	9.7
Dr Alexander James Stevenson	**6,250,286**	**9.6**	6,250,286	9.7
Lansdowne Partners	**3,000,000**	**4.6**	3,000,000	4.7

There were no notified significant changes in these holdings between 31 December 2016 and the date of the signing of these financial statements.

Share capital and funding

As at 31 December 2016 share capital comprised 64,858,150 ordinary shares of 0.25 pence each. There is only one class of share and all shares are fully paid. No share carries any right to fixed income, and each share carries the right to one vote at general meetings of the Company.

Full details of the Group's and the Company's share capital movements during the year are given in note 20 to the financial statements.

Details of shares under option are provided in note 21 to the financial statements.

Corporate Governance Statement

The Group's statement on corporate governance can be found in the Corporate Governance Statement on pages 15 to 17.

Going concern

The CEO's Review on pages 10 to 13 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. Reference is made to the statement on Risk and Risk Management on pages 7 to 9.

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.

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 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 their remuneration will be proposed at the forthcoming Annual General Meeting.

Annual General Meeting

The Annual General Meeting of the Company will be held on 26 May 2017 at 1 p.m. at the Gridiron Building, 1 Pancras Square, London N1C 4AG.

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 its own holdings.

The Directors' Report was approved by the Board on 26 April 2017 and was signed on its behalf by:

Duncan Peyton
Chief Executive Officer
26 April 2017

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.

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.

Independent Auditor's Report

For the year ended 31 December 2016

Opinion on financial statements

We have audited the group and parent company financial statements ("the financial statements") on pages 26 to 57. 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.

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 2016 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.

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 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 and, based on the work undertaken in the course of our audit, the Strategic report and the Directors' Report have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In light of the knowledge and understanding of the company and its environment obtained in the course of the audit, we have not identified any material misstatements in the Strategic Report or the Directors' Report.

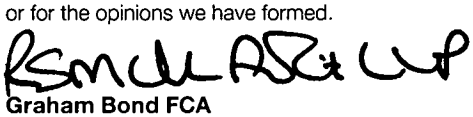
We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

- 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.

Respective responsibilities of directors and auditor

As more fully explained in the Statement of Directors' Responsibilities on page 24, 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.

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.



Graham Bond FCA
(Senior Statutory Auditor)
For and on behalf of
RSM UK AUDIT LLP,
Statutory Auditor
Chartered Accountants
3 Hardman Street
Manchester
M3 3HF
26 April 2017

Group Statement of Total Comprehensive Income

For the year ended 31 December 2016

	Notes	31 December 2016 £000	31 December 2015 £000
Research and development costs	4	**(10,220)**	(8,386)
Administrative expenses	4	**(2,866)**	(2,248)
Foreign currency gains	4	**799**	124
Operating loss	4	**(12,287)**	(10,510)
Finance income	6	**652**	451
Finance expense	6	**(71)**	–
Loss before taxation		**(11,706)**	(10,059)
Taxation	7	**1,843**	2,328
Loss for the year		**(9,863)**	(7,731)
Other comprehensive income:			
Foreign currency translation differences – foreign operations		**(389)**	–
Total comprehensive income for the year		**(10,252)**	(7,731)
Loss for the year and total comprehensive income for the year attributable to:			
Owners of the parent undertaking		**(10,252)**	(7,547)
Non-controlling interests		**–**	(184)
Loss for the year and total comprehensive income for the year		**(10,252)**	(7,731)
Loss per share			
Basic and diluted for the year	8	**(15.21)p**	(12.62)p

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

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

The notes on pages 33 to 57 form an integral part of these financial statements.

Group Statement of Financial Position

At 31 December 2016

	Notes	At 31 December 2016 £000	At 31 December 2015 £000
Assets			
Non-current assets			
Property, plant and equipment	9	**3,859**	1,115
Intangible assets	10	**14,299**	6,171
Taxation receivables	15	**23**	–
		18,181	7,286
Current assets			
Inventories	13	**238**	28
Trade and other receivables	14	**2,651**	2,013
Taxation receivables	15	**3,315**	2,623
Short-term investments and cash on deposit	16	**40,111**	83,664
Cash and cash equivalents	16	**28,661**	1,777
		74,976	90,105
Total assets		**93,157**	97,391
Liabilities			
Current liabilities			
Trade and other payables	17	**4,937**	4,309
		4,937	4,309
Non-current liabilities			
Deferred tax	18	**963**	385
Other payables	19	**774**	–
		1,737	385
Total liabilities		**6,674**	4,694
Net assets		**86,483**	92,697
Capital and reserves			
Share capital	20	**162**	161
Share premium account	20	**105,909**	102,003
Merger reserve		**958**	958
Translation reserve		**(389)**	–
Other reserve		**(864)**	(864)
Share-based payments reserve	21	**138**	7
Retained earnings		**(19,431)**	(9,568)
Total equity		**86,483**	92,697

Approved by the Board and authorised for issue on 26 April 2017.

The notes on pages 33 to 57 form an integral part of these financial statements.

Duncan Peyton
Director
26 April 2017

Company Statement of Financial Position

At 31 December 2016

	Notes	At 31 December 2016 £000	At 31 December 2015 £000
Assets			
Non-current assets			
Property, plant and equipment	9	**256**	369
Intangible assets	10	**889**	1,076
Investment in subsidiaries	11	**6,128**	2,323
		7,273	3,768
Current assets			
Loans to subsidiaries	11	**24,114**	8,916
Trade and other receivables	14	**350**	1,940
Taxation receivables	15	**455**	536
Short-term investments and cash on deposit	16	**40,111**	83,664
Cash and cash equivalents	16	**27,778**	1,684
		92,808	96,740
Total assets		**100,081**	100,508
Liabilities			
Current liabilities			
Trade and other payables	17	**1,018**	2,768
		1,018	2,768
Non-current liabilities			
Other payables	19	**774**	–
		774	–
Total liabilities		**1,792**	2,768
Net assets		**98,289**	97,740
Capital and reserves			
Share capital	20	**162**	161
Share premium account	20	**105,909**	102,003
Merger reserve		**958**	958
Share-based payments reserve	21	**138**	7
Retained earnings		**(8,878)**	(5,389)
Total equity		**98,289**	97,740

Approved by the Board and authorised for issue on 26 April 2017.

The Company's loss for the year was £3.489 million (2015: £4.224 million).

The notes on pages 33 to 57 form an integral part of these financial statements.

Duncan Peyton
Director
26 April 2017

Group Statement of Changes in Equity

For the year ended 31 December 2016

	Attributable to owners of parent									
	Share capital £000	*Share premium* £000	*Merger reserve* £000	*Translation reserve* £000	*Other reserve* £000	*Share-based payment reserve* £000	*Retained earnings* £000	Total £000	*Non-controlling interest* £000	*Total equity* £000
At 1 January 2015	**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 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**	**958**	**–**	**(864)**	**7**	**(9,568)**	**92,697**	**–**	**92,697**
Issue of share capital (net of expenses)	1	3,906	–	–	–	–	–	3,907	–	3,907
Total transactions with owners recognised in equity for the year	**1**	**3,906**	**–**	**–**	**–**	**–**	**–**	**3,907**	**–**	**3,907**
Loss for the year	–	–	–	–	–	–	(9,863)	(9,863)	–	(9,863)
Foreign currency translation differences – foreign operations	–	–	–	(389)	–	–	–	(389)	–	(389)
Issue of share-based compensation	–	–	–	–	–	131	–	131	–	131
At 31 December 2016	**162**	**105,909**	**958**	**(389)**	**(864)**	**138**	**(19,431)**	**86,483**	**–**	**86,483**

Details regarding the purpose of each reserve within equity are given in note 22.

Company Statement of Changes in Equity

For the year ended 31 December 2016

	Share capital £000	Share premium £000	Merger reserve £000	Share-based payment reserve £000	Retained earnings £000	Total £000
At 1 January 2015	**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**	**958**	**7**	**(5,389)**	**97,740**
Issue of share capital (net of expenses)	1	3,906	–	–	–	3,907
Total transactions with owners *recognised in equity for the year*	**1**	**3,906**	**–**	**–**	**–**	**3,907**
Loss and total comprehensive income for the year	–	–	–	–	(3,489)	(3,489)
Issue of share-based compensation	–	–	–	131	–	131
At 31 December 2016	**162**	**105,909**	**958**	**138**	**(8,878)**	**98,289**

Details regarding the purpose of each reserve within equity are given in note 22.

Group Cash Flow Statement

For the year ended 31 December 2016

	Notes	Year to 31 December 2016 £000	Year to 31 December 2015 £000
Loss after taxation		**(9,863)**	(7,731)
Adjustments for:			
Depreciation of property, plant and equipment	9	**405**	143
Amortisation of intangible assets	10	**213**	110
(Profit)/loss on disposal of property, plant and equipment		**(2)**	2
Finance income	6	**(652)**	(451)
Finance expense	6	**71**	–
Share-based compensation	21	**131**	7
Cash flows from operations before movements in working capital		**(9,697)**	(7,920)
Changes in working capital:			
(Increase)/decrease in inventories		**(210)**	87
Increase in trade and other receivables		**(762)**	(1,375)
Increase in taxation receivables		**(715)**	(2,389)
(Decrease)/increase in trade and other payables		**(2,142)**	2,524
Cash outflow from operating activities		**(13,526)**	(9,073)
Cash flows from investing activities			
Purchases of property, plant and equipment	9	**(2,243)**	(845)
Purchase of software and other intangibles	10	**(76)**	(14)
Acquisition of subsidiaries net of cash acquired	12	**(1,615)**	–
Acquisition of non-controlling interest		**–**	(402)
Cash received on disposal of assets		**15**	–
Interest received		**776**	170
Monies drawn from/(placed on) deposit		**43,553**	(80,657)
Net cash inflow/(outflow) from investing activities		**40,410**	(81,748)
Cash flows from financing activities			
Proceeds from issues of ordinary share capital		**–**	64,751
Expenses on issue of shares	20	**–**	(976)
Net cash inflow from financing activities		**–**	63,775
Increase/(decrease) in cash and cash equivalents		**26,884**	(27,046)
Cash and cash equivalents at the start of the year		**1,777**	28,823
Cash and cash equivalents at the end of the year	16	**28,661**	1,777

Company Cash Flow Statement

For the year ended 31 December 2016

	Notes	Year to 31 December 2016 £000	Year to 31 December 2015 £000
Loss after taxation		**(3,489)**	(4,224)
Adjustments for:			
Depreciation of property, plant and equipment	9	**63**	10
Amortisation of intangible assets	10	**201**	–
Impairment of investment	11	**–**	986
Finance income	6	**(652)**	(451)
Finance expense	6	**71**	–
Share-based consideration	21	**131**	7
Cash flows from operations before movements in working capital		**(3,675)**	(3,672)
Changes in working capital:			
Decrease/(increase) in trade and other receivables		**1,466**	(1,466)
Decrease/(increase) in taxation receivables		**81**	(445)
(Decrease)/increase in trade and other payables		**(1,750)**	2,352
Cash outflow from operating activities		**(3,878)**	(3,231)
Cash flows from investing activities			
Purchases of property, plant and equipment	9	**(104)**	(375)
Purchase of software and other intangibles	10	**(14)**	(1,076)
Investment in share capital in subsidiary	11	**(2)**	(191)
Acquisition of non-controlling interest	11	**–**	(402)
Loans to subsidiary undertakings	11	**(14,237)**	(6,189)
Interest received		**776**	170
Monies drawn from/(placed on) deposit		**43,553**	(80,657)
Net cash inflow/(outflow) from investing activities		**29,972**	(88,720)
Cash flows from financing activities			
Proceeds from issues of ordinary share capital	20	**–**	64,751
Expenses on issue of shares	20	**–**	(976)
Repayment of loan	11	**–**	1,076
Net cash inflow from financing activities		**–**	64,851
Increase/(decrease) in cash and cash equivalents		**26,094**	(27,100)
Cash and cash equivalents at the start of the year		**1,684**	28,784
Cash and cash equivalents at the end of the year	16	**27,778**	1,684

Notes to the Financial Statements

For the year ended 31 December 2016

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 11. 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 2016.

The financial statements of 4D pharma plc and its subsidiaries (the "Group") for the year ended 31 December 2016 were authorised for issue by the Board of directors on 26 April 2017 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 Company's loss for the year was £3.489 million (2015: £4.224 million).

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 interpretations as they apply to the financial statements of the Group for the year ended 31 December 2016 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 Chief Executive Officer's Report on pages 10 to 13 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 Summary on page 13 along with details of its cash flow and liquidity. Note 24 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 development 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 Company's functional currency and the Group's presentational 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. Further information is included in note 7.

(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.

Notes to the Financial Statements *continued*

For the year ended 31 December 2016

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(h). 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) Subsidiaries

Subsidiaries are entities controlled by the Company. 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

(iii) 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.

Exchange differences arising from the translation of foreign operations are taken directly to the translation reserve.

(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.

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.

Notes to the Financial Statements *continued*

For the year ended 31 December 2016

3. Significant accounting policies continued

(f) Income tax continued

Deferred income tax assets and liabilities are measured on an undiscounted basis using the tax rates and tax laws that have been enacted or substantively enacted by the balance sheet 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 are 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:

Fixtures, fittings and office equipment	–	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 derecognised 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 derecognition of the asset is included in the Income Statement in the year of derecognition.

(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.

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 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 the shorter of their useful lives and the period to the expiry of the patent.

3. Significant accounting policies continued

(h) Intangible assets continued

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 the single cash-generating unit 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 derecognised 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 derecognition of the asset is included in the Income Statement in the year of derecognition.

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.

(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.

Notes to the Financial Statements *continued*

For the year ended 31 December 2016

3. Significant accounting policies continued

(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 Total 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 derecognised when the contract that gives rise to it is settled, sold or cancelled or expires.

(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 Total 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.

(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 effective as at 31 December 2016. 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.

IFRS 9	Financial Instruments
IFRS 15	Revenue from Contracts with Customers
IFRS 16	Leases

4. Operating loss

During the year the Group reviewed the basis of the disclosure of costs in the accounts relative to the expenses incurred and the nature of the expense. Although there was no net change in the reported loss following on from this review, the totals disclosed were adjusted to accommodate this disclosure change; had they not been adjusted then the totals would have been as follows:

Disclosure adjustment to year ending 31 December 2015:	Original disclosure £000	Current disclosure £000	Movement £000
Research and development expense	6,895	8,386	1,491
Administrative expenses	3,615	2,248	(1,367)
Foreign currency gains	—	(124)	(124)
	10,510	10,510	—

By nature:	Year to 31 December 2016 £000	Year to 31 December 2015 £000
Operating loss is stated after charging/(crediting):		
Research and development expense		
Depreciation on property, plant and equipment	**349**	140
Amortisation of intangible assets	**213**	110
Staff costs (see note 5)	**1,604**	650
Operating lease rentals:		
– Land and buildings	**457**	90
– Equipment	**2**	—
– Other contractual commitments	**1,837**	764
Other research and development costs	**5,758**	6,632
	10,220	8,386
Administrative expenses		
Depreciation on property, plant and equipment	**56**	3
(Profit)/loss on disposal of property, plant and equipment	**(2)**	2
Staff costs (see note 5)	**840**	433
Operating lease rentals:		
– Land and buildings	**44**	31
Auditor's remuneration	**56**	30
Legal and professional	**838**	1,106
Consultancy	**202**	224
Other administrative costs	**832**	419
	2,866	2,248
Foreign currency gains	**(799)**	(124)
Auditor's remuneration:		
Audit services:		
– Fees payable to Company auditor for the audit of the parent and the consolidated accounts	**38**	14
– Auditing the financial statements of subsidiaries pursuant to legislation	**10**	14
– Non-audit services	**8**	2
Total auditor's remuneration	**56**	30

Notes to the Financial Statements *continued*

For the year ended 31 December 2016

5. Staff costs

	Year to 31 December 2016			Year to 31 December 2015		
	Research and development £000	**Administrative £000**	**Total £000**	Research and development £000	Administrative £000	Total £000
Wages and salaries	**1,371**	**621**	**1,992**	589	382	971
Social security costs	**201**	**74**	**275**	53	44	97
Pension contributions	**32**	**14**	**46**	8	—	8
Share-based compensation	**—**	**131**	**131**	—	7	7
	1,604	**840**	**2,444**	650	433	1,083
Directors' remuneration (including benefits in kind) included in the aggregate remuneration above comprised:						
Emoluments for qualifying services	**—**	**252**	**252**	—	260	260

Directors' emoluments (excluding social security costs, but including benefits in kind) disclosed above include £101,238 (31 December 2015: £101,000) paid to the highest paid director.

The directors were not granted any share options in the years ended 31 December 2016 or 31 December 2015 and none of the directors held any share options at 31 December 2016.

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 2016 Number**	Year to 31 December 2015 Number
Directors	**4**	4
Laboratory and administrative staff	**53**	20
	57	24

Company	**Year to 31 December 2016 Number**	Year to 31 December 2015 Number
Directors	**4**	4
Other staff	**6**	2
	10	6

6. Finance income and finance expense

	Year to 31 December 2016 £000	Year to 31 December 2015 £000
Finance income		
Bank interest receivable	**652**	451
Finance expense		
Unwind of discount	**(71)**	–
	581	451

Bank interest receivable includes £156,681 (31 December 2015: £280,818) which is receivable after the year end.

7. Taxation

The tax credit is made up as follows:

	Year to 31 December 2016 £000	Year to 31 December 2015 £000
Current income tax		
Total current income tax	**(1,843)**	(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	**(1,843)**	(2,328)

Notes to the Financial Statements *continued*

For the year ended 31 December 2016

7. Taxation continued

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

	Year to 31 December 2016 £000	Year to 31 December 2015 £000
Loss before taxation	**(11,706)**	(10,059)
Tax at standard rate of 20% UK, 25% EU (31 December 2015: 20% (UK only))	**(2,356)**	(2,012)
Effects of:		
Expenses not deductible for tax purposes	**56**	7
Adjustments to foreign currency translations on subsidiaries	**8**	—
Enhanced research and development expenditure	**(1,410)**	(1,276)
Property, plant, equipment and software timing differences	**20**	(40)
Tax losses carried forward to future years	**1,154**	1,066
Utilised losses from prior years	**—**	234
Adjustment in respect of prior years	**—**	(930)
Effects of variation on tax reclaims over the standard rate	**685**	623
Tax income tax credit recognised in the year	**(1,843)**	(2,328)

At 31 December 2016, the Group had tax losses available for carry forward of approximately £12.262 million (31 December 2015: £9.542 million). The Group has not recognised deferred tax assets relating to such earned forward losses of approximately £2.452 million (31 December 2015: £1.908 million).

At 31 December 2016, the Company had tax losses available for carry forward of approximately £2.974 million (31 December 2015: £3.740 million). The Company has not recognised deferred tax assets relating to such earned forward losses of approximately £0.595 million (31 December 2015: £0.748 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.

8. Loss per share

	Year to 31 December 2016 £000	Year to 31 December 2015 £000
Loss for the year attributable to equity shareholders	**(9,863)**	(7,547)
Weighted average number of shares:		
Ordinary shares in issue	**64,858,150**	59,823,755
Basic loss per share (pence)	**(15.21)p**	(12.62)p

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

9. 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**
Additions	88	1,894	261	2,243
Additions on business combinations	–	625	334	959
Disposals	–	(15)	–	(15)
Exchange rate adjustment	(2)	(44)	(16)	(62)
At 31 December 2016	**180**	**3,584**	**683**	**4,447**
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**
Provided during the year	32	318	55	405
Released on disposal	–	(2)	–	(2)
Exchange rate adjustment	–	(20)	(2)	(22)
At 31 December 2016	**38**	**497**	**53**	**588**
Net book value				
At 31 December 2016	**142**	**3,087**	**630**	**3,859**
At 31 December 2015	88	923	104	1,115
At 31 December 2014	6	411	–	417

Notes to the Financial Statements *continued*

For the year ended 31 December 2016

9. Property, plant and equipment continued

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**
Additions	41	56	7	104
Transfer to subsidiary entities	–	(168)	–	(168)
At 31 December 2016	**116**	**88**	**111**	**315**
Depreciation				
At 31 December 2014	**–**	**–**	**–**	**–**
Provided during the year	3	7	–	10
At 31 December 2015	**3**	**7**	**–**	**10**
Provided during the year	22	18	23	63
Released on transfer to subsidiary entities	–	(14)	–	(14)
At 31 December 2016	**25**	**11**	**23**	**59**
Net book value				
At 31 December 2016	**91**	**77**	**88**	**256**
At 31 December 2015	72	193	104	369
At 31 December 2014	4	–	–	4

10. 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**
Additions	71	–	–	5	76
Additions on business combinations	–	5,683	2,584	–	8,267
Exchange rate adjustment	(2)	–	–	–	(2)
At 31 December 2016	**84**	**8,999**	**4,507**	**1,081**	**14,671**
Amortisation					
At 31 December 2014	**–**	**–**	**–**	**49**	**49**
Provided during the year	2	–	–	108	110
At 31 December 2015	2	–	–	157	159
Provided during the year	13	–	–	200	213
Exchange rate adjustment	–	–	–	–	–
At 31 December 2016	**15**	**–**	**–**	**357**	**372**
Net book value					
At 31 December 2016	**69**	**8,999**	**4,507**	**724**	**14,299**
At 31 December 2015	13	3,316	1,923	919	6,171
At 31 December 2014	–	3,316	1,923	1,027	6,266

Company	Software £000	Patents £000	Total £000
Cost			
At 31 December 2014	**–**	**–**	**–**
Additions	–	1,076	1,076
At 31 December 2015	**–**	**1,076**	**1,076**
Additions	14	–	14
At 31 December 2016	**14**	**1,076**	**1,090**
Amortisation			
At 31 December 2015	**–**	**–**	**–**
Provided during the year	–	–	–
At 31 December 2015	**–**	**–**	**–**
Provided during the year	2	199	201
At 31 December 2016	**2**	**199**	**201**
Net book value			
At 31 December 2016	**12**	**877**	**889**
At 31 December 2015	–	1,076	1,076
At 31 December 2014	–	–	–

Notes to the Financial Statements *continued*

For the year ended 31 December 2016

10. Intangible assets continued

During the year goodwill amounting to £5.683 million was acquired as part of the business combinations detailed in note 12 being £1.774 million arising on the acquisition of Tucana Health Limited and £3.909 million arising on the acquisition of 4D Pharma Leon, S.L.U.

Goodwill amounting to £8.999 million, intellectual property amounting to £4.507 million and patent rights amounting to £1.081 million relate to a single cash-generating unit ("CGU"), contained in the acquisitions of 4D Pharma Research Limited, 4D Pharma Leon, S.L.U. and 4D Pharma Cork Limited (formerly Tucana Health Limited). These entities together provide the necessary facilities and resources to enable the Group to successfully research, manufacture, gain approval for and commercialise Live Biotherapeutic Products.

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 of £1.923 million 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. Intellectual property of £2.584 million acquired during the year represents the methods and know-how in relation to the MicroDx platform acquired as part of 4D Pharma Cork Limited (formerly Tucana Health Limited).

During the year goodwill, intellectual property, patents and associated property, plant and equipment were 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 both on management's past experience as well as externally provided reports, 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 2016 and for which estimated potential peak sales and future cash flows have been estimated. In addition an external valuation of the intellectual property contained via the acquisition of 4D Pharma Cork Limited (formerly Tucana Health Limited) has been used. Valuation of an early stage drug discovery pharmaceutical company is a notoriously difficult task and an 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 5,520%. The key assumption considered most sensitive for the value-in-use calculations is that regarding the discount rate applied to the net present value calculations. Management has performed sensitivity analysis on this key assumption and increased this from 10% to 20%. Due to the headroom which exists between the recoverable amount and the carrying value there is no reasonable possible change in this assumption that would cause the CGU's carrying value to exceed its recoverable amount.

11. Investment and loans to subsidiaries

Non-current assets	Ordinary shares £000
Company	
At 31 December 2014	**2,716**
Additions in the year	593
Impairment of investments	(986)
At 31 December 2015	**2,323**
Additions in the year	3,805
At 31 December 2016	**6,128**
By subsidiary	
4D Pharma Research Limited	2,323
4D Pharma Cork Limited	3,803
4D Pharma Leon, S.L.U.	2
At 31 December 2016	**6,128**

11. Investment and loans to subsidiaries continued

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**
Additions in the year	15,198
At 31 December 2016	**24,114**
By subsidiary	
4D Pharma Research Limited	18,072
4D Pharma Cork Limited	397
4D Pharma Leon, S.L.U.	5,645
At 31 December 2016	**24,114**

4D Pharma Cork Limited

The following addition was settled in shares and deferred consideration:

Subsidiary	Principal activity	Date of acquisition	Proportion of voting equity interests acquired	Consideration transferred £000
4D Pharma Cork Limited (formerly Tucana Health Limited)	Research and development	10-Feb-16	100.00%	3,100
		Deferred consideration (representing the risk-adjusted discounted value of up to 1 million further shares; see note 12 for further details)	100.00%	703

4D Pharma Leon, S.L.U.

The following addition was settled in cash:

Subsidiary	Principal activity	Date of acquisition	Proportion of voting equity interests acquired	Consideration transferred £000
4D Pharma Leon, S.L.U.	Production of Live Biotherapeutic Products	08-Apr-16	100.00%	2

See note 12 for further details on the assets acquired and incorporated into 4D Pharma Leon, S.L.U.

Subsidiary undertakings	Country of incorporation	Principal activity	31 December 2016
4D Pharma Research Limited	Scotland	Research and development	**100%**
4D Pharma Cork Limited	Ireland	Research and development	**100%**
4D Pharma Leon, S.L.U.	Spain	Production of Live Biotherapeutic Products	**100%**
Microbiomics Limited	England and Wales	Dormant	**100%**
The Microbiota Company Limited	England and Wales	Dormant	**100%**
Schosween 18 Limited	England and Wales	Dormant	**100%**

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

Notes to the Financial Statements *continued*

For the year ended 31 December 2016

11. Investment and loans to subsidiaries continued

The registered office of each of Microbiomics Limited, The Microbiota Company Limited and Schosween 18 Limited is Third Floor, 9 Bond Court, Leeds LS1 2JZ. The registered office of 4D Pharma Research Limited is Life Science Innovation Building, Cornhill Road, Aberdeen, Scotland AB25 2ZS. The registered office of 4D Pharma Cork Limited is c/o Paul O'Toole Room 447 Food Science Building, University College Cork, Western Road, Cork T12 YN60 Ireland. The registered office of 4D Pharma León, S.L.U. is Parque Tecnológico de León, Parc M 10.4, 24009 Armunia, Spain.

12. Business combinations

Acquisition of 4D Pharma Cork Limited (formerly Tucana Health Limited)

On 10 February 2016 4D acquired 100% of the issued share capital of Tucana Health Limited ("Tucana") for an initial consideration of €4 million which was satisfied by the issue of 410,603 shares in 4D at a price per share of £7.55. Tucana is a start-up company investigating the use of the microbiome signatures to aid the diagnosis and treatment of diseases including those targeted by 4D. On completion of further technical and clinical milestones a further consideration of up to €8 million will become due which will be satisfied by the issue of up to 1 million additional shares in 4D.

Year	Principal activity	Date of acquisition	Proportion of voting equity interests acquired %	Consideration £000
2016	Research and development	10 February 2016	100	3,803

Consideration:	£000	£000
Initial share consideration		3,100
Contingent consideration to be satisfied in shares	985	
Discounting of estimated future cash flows	(282)	
Net contingent consideration		703
Total consideration on acquisition		3,803
Fair value of assets acquired and liabilities recognised at the date of acquisition		
***Non-current* assets**		
Intellectual property		2,584
Non-current liabilities		
Deferred tax on acquisition		(555)
Fair value of identifiable net assets acquired		2,029
Goodwill arising on acquisition		
Consideration transferred		3,803
Less: fair value of identifiable net assets acquired		(2,029)
Goodwill arising on acquisition		1,774

For the 11 months to 31 December 2016 4D Pharma Cork Limited recorded a loss of £0.233 million after tax. On a pro-rata basis this equates to an annualised loss of £0.254 million.

***Acquisition of* 4D Pharma Leon, S.L.U.**

On 8 April 2016 4D invested £2,000 into 4D Pharma Leon, S.L.U., a newly incorporated Spanish subsidiary, which in turn acquired the production assets of Biomar, S.A. ("Biomar"). The consideration for the production assets was an initial €3 million on completion of which €2 million was paid in cash and €1 million satisfied by the issue of 82,349 4D pharma plc shares at a price of £9.805. In addition a further €3 million will become payable in cash upon successful GMP certification in respect of the production of Live Biotherapeutics at the Leon premises which is accounted for under financial liabilities in the Statement of Financial Position as at 31 December 2016.

12. Business combinations continued
Acquisition of 4D Pharma Leon, S.L.U. continued

Year	Principal activity	Date of acquisition	Proportion of voting equity interests acquired %	Consideration £000
2016	Production of Live Biotherapeutics	8 April 2016	100	4,845

Consideration:	£000
Initial share consideration	807
Initial cash consideration	1,615
Contingent consideration to be settled in cash	2,423
Total consideration on acquisition	4,845
Fair value of assets acquired and liabilities recognised at the date of acquisition	
Non-current assets	
Property, plant and equipment	959
Non-current liabilities	
Deferred tax on acquisition	(23)
Fair value of identifiable net assets acquired	936
Goodwill arising on acquisition	
Consideration transferred	4,845
Less: fair value of identifiable net assets acquired	(936)
Goodwill arising on acquisition	3,909

For the nine months to 31 December 2016, 4D Pharma Leon, S.L.U. recorded a loss of £0.039 million after tax. On a pro-rata basis this equates to an annualised loss of £0.052 million.

13. Inventories

	31 December 2016 Group £000	31 December 2016 Company £000	31 December 2015 Group £000	31 December 2015 Company £000
Consumables and materials	**238**	**—**	28	—

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

During the year £1,641,642 (year to 31 December 2015: £876,040) of inventories were expensed to the Income Statement.

14. Trade and other receivables

	31 December 2016 Group £000	31 December 2016 Company £000	31 December 2015 Group £000	31 December 2015 Company £000
Prepayments	**2,651**	**350**	2,013	1,940

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

Notes to the Financial Statements *continued*

For the year ended 31 December 2016

15. Taxation receivables

Non-current receivables	31 December 2016 Group £000	31 December 2016 Company £000	31 December 2015 Group £000	31 December 2015 Company £000
Corporation tax	**23**	**–**	–	–
	23	**–**	–	–

Non-current assets include research and development tax claims in overseas subsidiaries that are repayable in more than one year.

Current receivables	31 December 2016 Group £000	31 December 2016 Company £000	31 December 2015 Group £000	31 December 2015 Company £000
Corporation tax	**2,269**	**410**	2,328	477
VAT	**1,046**	**45**	295	59
	3,315	**455**	2,623	536

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

16. Cash, cash equivalents and deposits

	31 December 2016 Group £000	31 December 2016 Company £000	31 December 2015 Group £000	31 December 2015 Company £000
Short-term investments and cash on deposit	**40,111**	**40,111**	83,664	83,664
Cash and cash equivalents	**28,661**	**27,778**	1,777	1,684
	68,772	**67,889**	85,441	85,348

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 2016 include deposits with original maturity of three months or less of £15,000,000 (Group) and £15,000,000 (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 24.

17. Trade and other payables

Current	31 December 2016 Group £000	31 December 2016 Company £000	31 December 2015 Group £000	31 December 2015 Company £000
Trade payables	**1,163**	**254**	2,891	1,808
Other payables	**35**	**35**	23	20
Contingent consideration	**2,560**	**–**	–	–
Taxation and social security	**581**	**482**	42	24
Accruals	**598**	**247**	1,353	916
	4,937	**1,018**	4,309	2,768

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.

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

	Group £000
At 31 December 2014	**—**
Arising on the fair value of intellectual property on the acquisition of subsidiaries	385
At 31 December 2015	**385**
Arising on the fair value of intellectual property on the acquisition of subsidiaries	578
At 31 December 2016	**963**

During the year to 31 December 2016 the Company acquired 4D Pharma Leon, S.L.U. and 4D Pharma Cork Limited. These acquisitions created deferred tax provisions arising from the difference between the fair values of the assets acquired and the payment for the assets.

19. *Other payables*

	Group £000	Company £000
As at 31 December 2015	**—**	**—**
Contingent consideration	**703**	**703**
Unwinding of discount	**71**	**71**
As at 31 December 2016	**774**	**774**

On 10 February 2016 the Company acquired Tucana Health Limited (now 4D Pharma Cork Limited) for up to 1,410,603 shares, of which only 410,603 shares have been issued currently, the remainder remaining contingent on milestones. Having reviewed the current information on the milestones required to achieve the additional share issues the Group has concluded that some or all of the milestones are more than likely to be achieved so has valued the potential liability based on their discounted probability.

The following table lists the inputs used in valuing the provision:

The Company and the Group	2016
Share price	**757p**
Cost of capital	**17.50%**

20. 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				
At 1 January 2015	**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)
At 31 December 2015	**64,365,198**	**161**	**102,003**	**102,164**
Shares issued on 10 February 2016	410,603	1	3,099	3,100
Shares issued on 8 April 2016	82,349	—	807	807
Ordinary shares at 31 December 2016	**64,858,150**	**162**	**105,909**	**106,071**

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.

Notes to the Financial Statements *continued*

For the year ended 31 December 2016

20. Share capital continued

The Company acquired Tucana Health Limited (now 4D Pharma Cork Limited) on 10 February 2016 for up to 1,410,603 shares, of which only 410,603 shares have been issued currently, the remainder remaining contingent on milestones. The 410,603 shares were issued at a price of 755 pence per share.

The Company acquired the production assets of Instituto Biomar S.A. on 8 April 2016 to form 4D Pharma Leon, S.L.U. for €2 million cash and €1 million shares in 4D pharma plc, equating to 82,349 shares issued at a price of 980.5 pence per share. A further €3 million cash will become payable on GMP certification.

21. Share-based payment reserve

The Company and the Group	£000
At 31 December 2015	7
Share-based compensation	131
At 31 December 2016	**138**

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 and Company Statements of Changes in Equity.

A charge of £131,000 has been recognised in the Statement of Comprehensive Income for the year (year to 31 December 2015: £7,200).

Share option schemes

The Group operates the following unapproved share option scheme:

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

Share options were granted to staff members on 10 November 2015 and 11 May 2016. 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 Company and the Group	**2016 Number**	2015 Number
Outstanding at the start of the year	**40,909**	–
Granted during the year	**60,147**	40,909
Outstanding at 31 December	**101,056**	40,909
Exercisable at 31 December	**–**	–

Weighted average exercise price of options

The Company and the Group	**2016 Pence**	2015 Pence
Outstanding at the start of the year	**0.25**	–
Granted during the year	**0.25**	0.25
Outstanding at 31 December	**0.25**	0.25

For the share options outstanding as at 31 December 2016, the weighted average remaining contractual life is 2.13 years.

No share options were exercised during the year (31 December 2015: none) and no share options were exercisable at 31 December 2016 or at 31 December 2015.

21. Share-based payment reserve continued
Share option schemes continued

The following table lists the inputs to the models used at the respective year ends:

The Company and the Group	2016	2015
Expected volatility	**52.50%**	52.50%
Risk-free interest rate	**1.40%**	0.87%
Expected life of options	**3 years**	3 years
Weighted average exercise price	**0.25p**	0.25p
Weighted average share price at date of grant	**771p**	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.

22. 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.

Translation reserve

The translation reserve is composed of the exchange rate movements in non-monetary assets of foreign subsidiaries which arise on the translation from the subsidiary's functional currency to the Group's presentational currency. Movements in the reserve are disclosed in the Group Statement of Changes in Equity and the Group Statement of Total Comprehensive Income.

Notes to the Financial Statements *continued*

For the year ended 31 December 2016

23. 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 2016 Group £000	**31 December 2016 Company £000**	31 December 2015 Group £000	31 December 2015 Company £000
Land and buildings:				
– Not later than one year	**265**	**43**	126	43
– After one year but not more than five years	**604**	**117**	236	160
	869	**160**	362	203

Capital expenditure

The Group and Company have no committed capital expenditure at 31 December 2016 or at 31 December 2015.

Contractual commitments

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

	31 December 2016 Group £000	**31 December 2016 Company £000**	31 December 2015 Group £000	31 December 2015 Company £000
Research and development:				
– Not later than one year	**1,220**	**1,220**	1,011	1,011
– After one year but not more than five years	**1,874**	**438**	396	396
	3,094	**1,658**	1,407	1,407

24. 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.

It is, and has been throughout the year, the Group's policy that no speculative trading in financial instruments is undertaken.

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 20 and in the Group Statement of Changes in Equity. Total equity was £86.483 million at 31 December 2016 (31 December 2015: £92.697 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.

24. 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 2016	Fixed rate £000	Floating rate £000	Non-interest bearing £000	Total £000
Group				
Cash and cash equivalents	50,111	18,661	–	68,772
Trade and other payables	–	–	(3,758)	(3,758)
	50,111	18,661	(3,758)	65,014
Company				
Cash and cash equivalents	50,111	17,778	–	67,889
Inter company loans	–	–	24,114	24,114
Trade and other payables	–	–	(289)	(289)
	50,111	17,778	23,825	91,714

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
Inter company loans	–	–	8,916	8,916
Trade and other payables	–	–	(1,828)	(1,828)
	62,211	23,137	7,088	92,436

All categories of financial assets and liabilities are measured at amortised cost with the exception of the contingent consideration which is measured at fair value through the Statement of Total Comprehensive Income using a level 3 valuation technique.

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's principal functional currency is Sterling. However, the Group has acquired two subsidiaries during the year whose functional currency is the Euro and the Group as a whole undertakes certain transactions denominated in foreign currencies.

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") and Euros ("EUR"). Transactions outside of these currencies are limited.

Notes to the Financial Statements *continued*

For the year ended 31 December 2016

24. Financial risk management continued

Foreign currency risk continued

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 2016 or at 31 December 2015 and the Group did not enter into any such contracts during 2016 or 2015.

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

	2016					2015				
Group	**GBP £000**	**USD £000**	**EUR £000**	**CHF £000**	**Total £000**	GBP £000	USD £000	EUR £000	CHF £000	Total £000
Cash, cash equivalents and deposits	**67,413**	**11**	**1,348**	**–**	**68,772**	81,520	–	3,921	–	85,441
Trade and other payables	**(831)**	**(80)**	**(2,847)**	**–**	**(3,758)**	(856)	(1,441)	(446)	(171)	(2,914)
	66,582	**(69)**	**(1,499)**	**–**	**65,014**	80,664	(1,441)	3,475	(171)	82,527

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.

25. Related party transactions

Key management compensation	**Year to 31 December 2016 £000**	Year to 31 December 2015 £000
Fees for services provided as non-executive directors:		
Salaries and short-term benefits	**50**	58
Employer's National Insurance and social security costs	**2**	5
	52	63
Executive directors:		
Salaries and short-term benefits	**202**	202
Employer's National Insurance and social security costs	**25**	25
	227	227
Other key management:		
Salaries and short-term benefits	**451**	241
Employer's National Insurance and social security costs	**54**	29
Share-based payment charge	**131**	7
	636	277

25. Related party transactions continued

Group

Transactions with Directors and related entities

During the year Aquarius Equity Partners Limited, an entity controlled by Duncan Peyton and Dr Alexander Stevenson, charged the Group £8,368 for other office expenses (31 December 2015: £94,206). As at 31 December 2016 £3,144 was due from Aquarius Equity Partners Limited (31 December 2015: £Nil).

During the year, Thomas Engelen charged the Group £Nil for consultancy services (31 December 2015: £9,210) and was owed £Nil at 31 December 2016 (31 December 2015: £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.

Transactions with key personnel and related entities

There were no trading transactions with Fommir Limited during the year, a company where Douglas Thomson was a director and majority shareholder. During the year to 31 December 2015 the company charged the Group £120,000 for consultancy services, £150,000 in performance-related bonuses and £5,197 for other costs. At the year end the Group owed Fommir Limited £Nil (31 December 2015: £102,229).

During the year summ.it assist llp, an entity in which Stephen Dunbar is a partner, recharged the Group £23,690 for IT equipment and software (31 December 2015: £14,158), £4,126 for IT support (31 December 2015: £7,650), £60,328 for accounting and bookkeeping services (31 December 2015: £94,755) and £3,199 for other costs (31 December 2015: £989). At the year end £6,766 was due to summ.it assist llp (31 December 2015: £7,402).

3C SAS, an entity owned by Christophe Carité, provided consultancy services to the Group of £182,324 (31 December 2015: £113,322) and recharged costs of £73,029 (31 December 2015: £63,805). At the year end £Nil was due to 3C SAS (31 December 2015: £Nil).

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.

Transactions with Directors and related entities

During the year Aquarius Equity Partners Limited, an entity controlled by Duncan Peyton and Dr Alexander Stevenson, charged the Company £8,368 for other office expenses (31 December 2015: £94,206). As at 31 December 2016 £3,144 was due from Aquarius Equity Partners Limited (31 December 2015: £Nil).

Transactions with key personnel and related entities

During the year summ.it assist llp, an entity in which Stephen Dunbar is a partner, recharged the Company £23,590 for IT equipment and software (31 December 2015: £13,918), £4,126 for IT support (31 December 2015: £7,650), £53,950 for accounting and bookkeeping services (31 December 2015: £79,675) and £3,199 for other costs (31 December 2015: £989). At the year end £5,854 was due to summ.it assist llp (31 December 2015: £6,766).

3C SAS, an entity owned by Christophe Carité, provided consultancy services to the Company for the year to 31 December 2016 of £182,324 (31 December 2015: £113,322) and recharged costs of £73,029 (31 December 2015: £63,805). At the year end £Nil was due to 3C SAS (31 December 2015: £Nil).

All related party transactions during the current and previous year were considered to be at arm's length.

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