SILENCE THERAPEUTICS

RNAi drugs becoming a reality: channelling gene silencing to cure disease

Annual Report and Accounts 2016

Unlocking opportunity, realising potential

Based on the science of genetics, our technology has the potential to transform lives worldwide.

Silence is at the forefront of the discovery and development of a range of new medical treatments.

Globally, we are one of a small handful of companies with the technological capability to switch off, or silence, individual human genes. This technology is called RNA interference, or RNAi. It is through the application of such technology that we can offer opportunities to partners and investors that were undreamt of just a few years ago. Ultimately, our RNAi-based drugs are designed to provide new hope to patients suffering diseases that were previously difficult or impossible to treat.

What does gene silencing mean for...

Paving the way to go from mass healthcare to highly efficient precision medicine

20,000

The number of protein-coding genes in the human body. We can specifically target each of them using our gene silencing technology

Treating the untreatable. Drugging the undruggable. Meeting the unmet need.

science?

Nobel

The discovery of RNAi was recognised with a Nobel Prize in 2006

The ability to switch any gene, and therefore protein, off at will opens up tremendous new opportunities for scientists to create novel therapies beyond traditional medicine.

Although RNA interference (RNAi) has not yet reached the market, the field has recently matured substantially and we have developed proprietary technology that forms the basis for our drug candidates.

With the drug discovery process for traditional small molecule drugs taking up to five years, our technology is helping to markedly reduce the timeline from idea to market.

“The combination of increasing numbers of identified gene targets and the efficiency that comes from RNAi drug discovery puts Silence at the forefront of the potential pharmaceutical leaders of the next decade.”

Dr. Stephen Parker, Chairman

the pharmaceutical industry?

New therapies that address areas of high unmet medical need mean clear opportunities for the pharmaceutical industry to generate new revenue streams. Our technology can bring cost savings, increased speed and reduced risk to the drug discovery and development process.

The high tissue and target gene specificity of our drugs means that the therapeutic effects are more predictable and side effects are reduced.

High potential for partnership deals
Quark Pharmaceuticals licensed our stabilising chemistry technology, which is currently used in several of their clinical stage drug candidates.

$67bn

Predicted global market size of the RNAi therapeutics field by 2025[1]

[1] www.aboutpharma.com

RNAi offers a superlative target-specific and tailored therapeutic approach that will soon be used to ameliorate today's most challenging diseases


Working to bring innovative
RNAi-based genetic medicines
to patients in need

“At Silence, highly skilled scientists work on the development of innovative siRNA approaches to meet patients’ needs.”

Dr. Ulrich Zügel, Head of Preclinical Drug Discovery

doctors and patients?

400%

increase in mortality due to liver disease since 1970[1,2]

A milestone on the journey to precision medicine, gene silencing holds the promise of improved treatments and better quality of life for patients.

RNAi technology offers a radically new approach to treating conditions from cardiovascular diseases to rare and ultra-rare conditions, and it does so with unparalleled precision. Our RNAi triggering molecules can be delivered to specific cells without impacting any of the other cells in the body, leading to a dramatic reduction in side effects.

Lower burden, patient-friendly
Our new generation of RNAi drugs can be administered subcutaneously, in a similar way to insulin, so there is no need for invasive, costly and time-consuming intravenous injections to be carried out in hospital.

[1] www.britishlivertrust.org.uk
[2] www.nice.org.uk

“Silence’s position in the global therapeutics industry gives a number of opportunities for exciting developments as a business and PLC.”

Alistair Gray, Non-Executive Director

investors?

Silence is one of the first companies in the world to build a business based on RNAi and is the only quoted company in this sector in Europe.

With robust technology able to target any gene in the genome and highly tissue-specific delivery solutions, Silence is well-positioned to execute on its strategy and to take full advantage of the increasing body of genomic data available, which will unveil new therapeutic targets.

Our strengths lie in our proprietary and validated platform technology, which enables accelerated drug discovery phases and is sufficiently modular to support a risk diversified portfolio.

With the significant progress in liver delivery, RNAi will be able to fulfil its promise as the next class of therapeutics

So, how does gene silencing work?

Every living organism is made up of cells. Humans have millions of cells and inside each one is a nucleus, protecting its DNA. Cells use DNA as a blueprint to manufacture the proteins that make the body function. While DNA always remains inside the nucleus, a blueprint for each gene is taken outside the nucleus by a messenger known as mRNA (messenger RNA) and is used by the cell as the instructions to make proteins.

In most cases, everything works well and the body functions exactly as it should. But sometimes cells will produce too much of a particular protein (from too many copies of the mRNA blueprint), leading to disease.

As we know the sequences of all genes and their blueprints, a specific ‘anti-code’ can be designed against the problematic mRNA. Short interfering RNA (siRNA) molecules are our therapeutic ‘anti-code’ molecules that, once inside the cell, will find their single target mRNA and bind to it.

“Our technology is based on very high specificity. We target only liver cells and only the target gene of interest, leaving all other cell types and genes intact.”

Ali Mortazavi, Chief Executive Officer

Guided by our tailored siRNA molecules, the endogenous cell machinery will then trigger a natural process known as RNA interference (RNAi) and degrade the target mRNA. This mechanism results in inhibited production of the disease-causing protein, allowing the cell to revert to its physiological healthy state.

siRNA molecules can be engineered to suppress the expression of any gene in the genome. Coupled with a tissue-specific delivery system, this novel drug modality provides double specificity by acting only in the desired organ and inhibiting the expression of only one gene.

The combination of siRNA and suitable delivery systems leads to the creation of a new generation of drug candidates that will impact the future of medicine.

“The continuing steep decline in the cost of genomic sequencing will play an important role for our Company in unveiling new gene targets.”

Ali Mortazavi, Chief Executive Officer

Highlights

Our international team is working to produce a new class of medicines that have the potential to improve patient lives, reshape disease management, and create value for our stakeholders.

Strategic highlights

- The RNAi industry has largely transitioned from a delivery system based on lipid nanoparticles to GalNAc conjugates, and through 2015/2016 we have similarly restructured our R&D efforts to focus upon GalNAc and produce safer, more durable and more specific drug targeting
- Maintained our patent portfolio and further strengthened our broad siRNA chemistry patent family, enhancing our ability to out-license our IP
- Founding of experienced Technology Advisory Board to advise strategically on RNAi application
- Reduced the number of Executive Directors on the Board to more closely follow the US model with a majority of Non-Executive Directors

Operational highlights

- Invested in leadership with the appointment of a new Chief Financial Officer and a new Non-Executive Director
- Developed competitive proprietary GalNAc-siRNA conjugate structures
- Proved that our liposomal systems are well suited for large cargoes and can mediate *in vivo* gene editing such as CRISPR

Financial highlights

- £0.8m revenue recognised from Quark under existing IP out-license
- Purchased a 4.7% stake in Arrowhead Pharmaceuticals Inc. for £4.3m that we hope may lead to future collaboration
- Operating cash outflow of £10.1m for the year, and an ending cash balance of £39.0m

Post year end

- New European patent granted March 2017 for key siRNA chemical modifications which reads widely across the RNAi industry
- Purchased a further 4.5% of Arrowhead in January 2017 for £4.9m

Chairman's statement

Dr. Stephen Parker
Chairman

Building our team, energising our future.

> "2016 was a year of sustained progress as we carried out a strategic reorganisation in order to position the company for a highly successful future."

Dear shareholder,
It is with great pleasure that I present this annual report, the fourth since I joined your company and the second since becoming Non-Executive Chairman. During those years, Silence has grown into a major player in RNA interference (RNAi) with proprietary technology that continues to deliver competitive advantage.

Listed on the AIM in London, Silence is the only quoted short interference RNA (siRNA) player based in Europe. We started the year with a strong cash position and following investments in our research capabilities as well as in Arrowhead Pharmaceuticals, both immediately before and after the year end, are well-positioned for the future. We ended the year with a cash balance of £39.0m before investing £4.9m in January 2017 to raise our Arrowhead stake to 9.2%. The operating cash outflow for 2016 was £10.1m, which gives the Directors comfort that we will be able to seriously advance our pipeline. We also recognised revenue from Quark Pharmaceuticals under a licence agreement, further validating our key intellectual property around chemical modifications.

Investing in our leadership
2016 was a year of sustained progress as we carried out a strategic reorganisation in order to position the company for a highly successful future. Chief among these developments were the appointments of a new Chief Finance Officer (CFO) and a new Non-Executive Director.

David Ellam, our new CFO, joined in July 2016 and brings with him valuable senior finance experience gained in roles within both US and UK publicly-owned life science companies, most recently at BioMarin Pharmaceuticals Inc. where he was Senior EUMEA Finance Director. I have been impressed by the way in which David hit the ground running and quickly established a fine working relationship with our CEO, Ali Mortazavi.

I am particularly pleased to welcome Dr. Andy Richards CBE, who chairs the Remuneration Committee, to the Board; he and Alistair Gray, who heads up our Audit and Risk Committee, have worked closely with the executives and myself to reshape the strategic direction of your company and the governance by which it is run.

Our former CFO Tim Freeborn stepped down from the Board at the 2016 AGM and left the company in December 2016. Dr. Mike Khan also retired from the Board at the AGM; Mike remains a valuable part of the Silence team as a consultant advising us on translational science.

These changes have enabled us to reshape the Board to a more efficient model, with the CEO and CFO being the only executive directors.

Tightening our governance

Governance is a key focus for the Board and I am delighted to report steady improvement in our processes, discussed at greater length in my introduction to the Corporate Governance Report. Andy and Alistair have brought new standards to their respective committees, as we continue to build a strong Board with a governance framework to match. The Corporate Governance Report, which begins on page 16, outlines the sustained progress made in 2016 and our targets for the year ahead.

Outlook

We face the future with confidence, sure of our strategy and buoyed by the knowledge that the executive team is better equipped to seize the opportunities ahead than at any point in our history.

The Government has now triggered Article 50 to commence the process of the UK leaving the European Union. We will of course continue to monitor the timeline and possible impact of "Brexit". Our current structure - with locations in Berlin and London, and many EU nationals among our workforce - is well suited to our ambitions. However, it may also present challenges post-"Brexit" and we will address these as and when they arise.

Finally, I wish to thank our people at all levels of the organisation. From the boardroom to the laboratory, I am constantly reminded of the abilities and personal qualities that make Silence such an outstanding company. It has been a privilege to work alongside you for the past year and I look forward to even more fruitful collaboration in 2017 and beyond.

Dr. Stephen Parker
Chairman
26 April 2017

"From the boardroom to the laboratory, I am constantly reminded of the abilities and personal qualities that make Silence such an outstanding company. It has been a privilege to work alongside you for the past year and I look forward to even more fruitful collaboration in 2017 and beyond."

Chief Executive Officer's strategic perspective

Ali Mortazavi
Chief Executive Officer

"I believe that 2016-18 will be remembered as the pivotal years when RNAi became a reality."

2016 was a year of transformation and transition for RNAi and Silence. The field has moved on rapidly, based on scientific and clinical successes and along with our competitors in the field we have largely abandoned complex lipid nanoparticle (LNP) delivery systems in favour of the GalNAc conjugate approach. To capitalise on this new sector focus we were also able to utilise our strong balance sheet to acquire a strategic stake in Arrowhead Pharmaceuticals, with whom we hope to work closely in 2017 and onwards.

2017-18 will be a pivotal period for RNAi as important clinical readouts in the field will, we believe, validate RNAi as a powerful new modality in drug development. Silence is well positioned to capitalise on these events with a multi-pronged strategy. Firstly, with these results, we have unveiled our initial set of high-conviction liver-based pre-clinical candidates at the research/discovery stage. We have worked extremely hard at target gene/disease selection, benefiting from the learnings of our competitors, and will continue to add to our pre-clinical programmes providing 'multiple shots on goal.' Our company is highly focused on thorough vetting of potential candidates to minimise risk of failure.

As well as these internal programmes, we have a material interest in RNAi candidates outside of our own pipeline through our established siRNA stabilisation chemistry Intellectual Property ("IP"). Our IP provides a material stake in two of the leading RNAi clinical candidates through our licensing agreement with Quark Pharmaceuticals: QPI 1002 for both Acute Kidney Injury and Delayed Graft Function, where we expect meaningful readouts from Q3 2017 and Q3 2018 respectively. We also believe that our IP is a critical component of other late stage RNAi candidates. As RNAi becomes an established therapeutic approach, the Directors believe that the totality of our IP alone represents a very significant risk/reward upside relative to the market cap and enterprise value of Silence. As such, we look forward to the future with great confidence.

Specificity

I believe that 2016-18 will be remembered as the pivotal years when RNAi became a reality. This belief is based upon the data that we and others in the field are seeing from liver-targeting GalNAc delivery. This technology now has a robust body of human and preclinical *in vivo* data to back up its capabilities. What does this actually mean in practice? It means that we now have one of the most targeted technologies in drug development. We are specific in our delivery system which only targets hepatocytes in the liver, minimising potential side effects derived from unintentionally targeting other cell types. We extend that specificity to targeting a single gene, leaving the expression of all other genes undisturbed.

Phrases like "laser guided missiles" have been overused to describe genetic medicine approaches but are now a distinct reality within our capabilities. Furthermore, GalNAc-siRNA conjugates can be administered subcutaneously (in a patient-friendly way similar to insulin), reducing the need for the invasive intravenous infusions that are required with other delivery systems, such as lipid nanoparticles. This substantial advantage is immensely attractive as it minimises patient burden and enables us to pursue a wider range of disease areas, markedly reducing the severity threshold for our genetic medicines.

Therapeutic portfolio

Once the technology is mastered, the selection of the right gene targets is key. A critical focus of our Company is the identification of liver targets with clear causal effects in serious diseases. One of the risks of drug development is that once a project is truly embarked upon, it is difficult and costly to turn back and re-design the study. As such, appropriate target gene and therapeutic area selection are crucial components of the decision-making process. Not only does there have to be a meticulous analysis of biology and current standard of care but there also needs to be an insight into the future and how the landscape may evolve. The gating needed to take an idea forward does not stop there. We try and mitigate application risk by having a variety of approaches:

- Clear evidence to support the biological hypothesis that links a certain target gene to a particular disease
- Identification of reliable biomarkers which can give early evidence of the therapeutic benefit exerted by drug candidates
- Access to potentially validating genomic datasets
- Establishment of a network of subject- experts and clinicians treating affected patients

Finding the sweet spot between technology, biology, medicine and a commercial pathway is an exercise that requires a broad skillset.

To further complicate this process, 2016 has seen a constant debate around the pricing of medicines. Here we take a very traditional view: medicines, just like any other products, have to make meaningful impact on people's lives in order to command premium pricing. In short, drugs have to perform satisfactorily.

At Silence, at the end of a detailed analysis of a potential candidate, we ask an important question: does silencing this target gene have a meaningful impact on the disease? If not, we cannot justify committing capital to the project nor expect patients to pay for the resulting medicine.

Targeting technology

Perhaps the greatest de-risking tool that we have at our disposal is the ability to run parallel projects. We believe that this 'multiple shots on goal' approach is where the true potential of RNAi is at work. In short, once we gain access to the cell through the cell membrane with our delivery system, every gene within that cell is druggable by RNAi.

We follow the same method every time:

1. Selection of target gene in hepatocytes that is linked to disease
2. Synthesis of candidate short interfering RNAs (siRNA) and identification of the lead molecule with the best ability to inhibit the target gene
3. Coupling of the lead siRNA to a GalNAc cluster to enable effective and highly selective delivery to target cells (hepatocytes), sparing other tissues
4. Harnessing the natural process of Watson-Crick base pairing between the siRNA and target mRNA, which is the signal for the cell to specifically silence the expression of the target gene

We have established a detailed process model for our GalNAc-siRNA projects and the capacity to run 5 to 7 high-conviction pre-clinical projects, at different stages, per year. It is at the end of this process and extensive *in vivo* studies that we make critical decisions on the performance of our drug and whether a candidate is suitable for first-in-person studies. Put simply, this creates pipeline breadth and avoids the position of progressing solitary projects.

Investing in R&D

Our emphasis on the liver is founded on the fact that this organ is responsible for a large part of the human body's metabolism. The liver is the origin of several diseases of high unmet clinical need, not only those that directly affect the liver itself but also those that have detrimental effects elsewhere in the body, for example in the heart and even in the brain.

Throughout the year, we generated a body of data that proved that our GalNAc-siRNA technology is able to have a significant impact on the expression of several liver genes. These results are being investigated further as some of our projects progress through the animal model of disease phase. Early stage positive results will create opportunities for partnerships or even for product out-licenses.

In addition, we proved the concept that our liposomes can mediate CRISPR gene editing through an entirely RNA based approach. We have optimised the composition of our liposomes and achieved sustained target gene disruption *in vivo* for two different target liver genes. Importantly, only one other player which operates exclusively in the gene editing field has reported *in vivo* CRISPR data. This is a major discovery as liposomes are suitable to deliver larger cargoes and our existing expertise in nanoparticles can be repurposed for such applications, while GalNAc is the preferred method for siRNA delivery. In line with our business model, our aim is to establish a collaboration or identify a partner to move this technology forward without deploying internal resources beyond our core siRNA focus.

Our licensee, Quark Pharmaceuticals, continues to advance a phase II trial for acute kidney injury and a phase III trial for delayed graft function. If successful, these products will lead to meaningful milestones and royalties for Silence.

Finally, we obtained the follow-up data from our Phase 2a Atu027 study in pancreatic cancer during the year. We have subsequently decided that as this is such a complex disease, the best strategy to ensure good progress is to identify a suitable partner rather than use our own balance sheet. This decision enables us to focus our resources on developing our GalNAc-siRNA candidates.

Intellectual property

We have built, and continue to expand on, our strong portfolio of patents which have critical utility in the field of RNAi as a whole. Our IP reflects the innovative work that has been carried out in Silence and captures certain chemical modifications that are key for therapeutic siRNA molecules to reach target cells intact and therefore retaining their full potency. These modifications are widely used by the RNAi industry to achieve the stable delivery of naked siRNA.

Specifically, a second European patent was granted in March 2017 that broadly claims these innovative key chemical modifications, and which reads widely across the RNAi industry. Additionally, in the US, we similarly expect to achieve grant in 2017 of another US patent broadly claiming similar key chemical modifications. We will also continue to prosecute our other pending applications in Europe and elsewhere so as to achieve additional strong protection for these aspects of our technology.

Not only do we expect to make significant strides in our core business activity of drug development, but we also see material upside in potential licensing and partnering opportunities with companies using our IP. Our patent estate covering siRNA stabilisation chemistry has become even more relevant in recent years as the field has moved from using lipid nanoparticles to conjugation chemistry, where the siRNA is exposed and more susceptible to attack in the body. Our proprietary stabilising chemistry is key for therapeutic siRNA molecules to reach target cells intact and therefore retaining their full potency.

We consider innovation to be key in the biotechnology industry, and a crucial enabler for the generation of new IP. Therefore, in addition to our commitment to progressing our preclinical programmes at pace, we have a dedicated Technology Development team which works at discovering ways to improve our current technology and next generations of RNAi-based therapies as well as the means to target additional cell types beyond hepatocytes.

Technology advisory board

During the year we announced the formation of our Technology Advisory Board (TAB). This is chaired by Dr. Jörg Vollmer, who brings over 16 years of experience in drug discovery and development. He is currently Chief Scientific Officer at Rigontec and an Executive Board Member at BioRiver, and was previously CEO at Nexigen. One of the first projects undertaken by the TAB was to advise upon the transition from LNP/mRNA to a GalNAc-focused business.

Looking ahead

2017/18 will be a critical period in the field of RNAi. As well as announcing our own GalNAc-siRNA pipeline candidates, we await important readouts from competitor clinical studies which will add not only to the viability of RNAi as a new class of therapeutic, but will also potentially have a significant impact upon the value of our IP portfolio.

Drug development is a unique industry with a unique set of risks and challenges. The often incomplete knowledge of human biology, coupled with extremely long product life cycles and a requirement for significant amounts of capital, can be difficult to manage. In summary, we do this because it matters and because we believe that RNAi can have a substantial impact on medical practice while also transforming some of the business risks in a controlled fashion. We look forward to the year ahead with great anticipation and excitement.

Ali Mortazavi
Chief Executive Officer
26 April 2017

Our business model

Our business model is designed to bring solutions for patients while creating shareholder value by translating our proprietary technology into commercial drug products, in a rapid and cost-effective way.

Advantages of siRNA as a class of therapeutics are:

siRNA therapeutics process

Target-specific siRNA generation

siRNA screen and lead formulation

Months

Small molecules process

Target identification

Hit generation

Lead identification and production

4-5 years

Specificity
Our siRNA molecules are designed to target a single mRNA in the cell, only affecting the expression of the disease-causing gene. Our delivery system ensures further specificity by delivering therapeutic siRNA to only one cell type in the body.

Reduced timelines
Knowing the sequence of the human genome means that potent therapeutic siRNA molecules can be identified quickly, ready to be tested in the relevant models.

Modular technology
Our technology consists of two components: siRNA plus a delivery system to enter liver cells. By engineering the siRNA molecule, a different gene can be targeted to tackle a new disease. This modular nature is the basis of our versatile platform technology.

Lower risk
The specificity of our siRNA drugs translates in better predictability of their biological effects. This is key given the attrition rates in drug development. In addition, we mitigate risk by diversifying our preclinical portfolio with as many ideas as we can explore.

Pre-clinical efficacy and toxicity

Clinical trials: Phase I, II, III

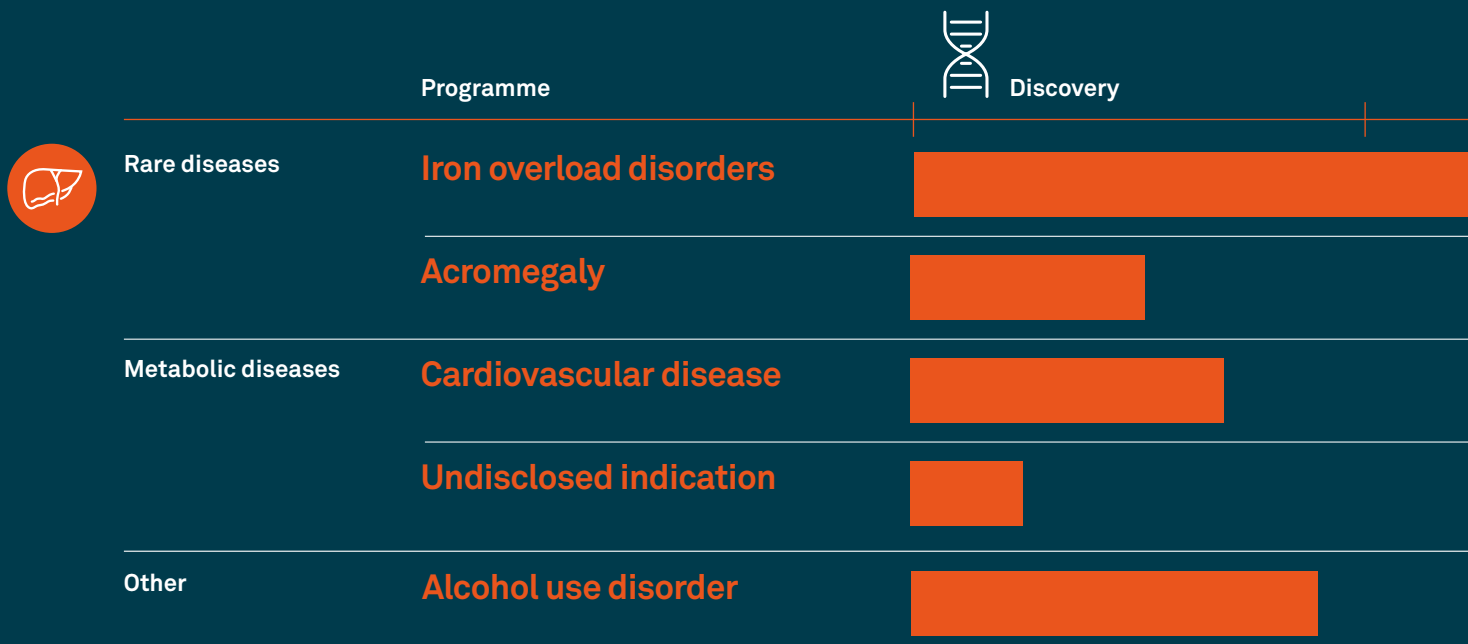
FDA review and approval

We test our ideas through a rigorous and highly stringent process, only proceeding into clinical development with those that show the greatest promise.

Our pipeline

A core focus is the development of our own clinical-stage RNA therapeutics, having developed a broad pipeline of product candidates.

Our programmes



Out-licensed programmes (AtuRNAi™)

The graphic below shows a snapshot of our current pipeline, which is mostly centred around our liver-targeting GalNAc-siRNA platform technology. Our pipeline consists of a diversified set of therapeutic areas, including rare and metabolic indications.

With regards to our out-licensed programmes, the drug candidates being developed by our licensee Quark Pharmaceuticals, in partnership with Novartis, continue to progress and are currently advancing through Phase 2 and Phase 3 trials.

"The liver is rapidly becoming recognised as key to very many diseases, both major conditions and orphan indications. Our focus on a range of diseases associated with the liver puts us in a good position to be successful in our chosen field."

Dr. Stephen Parker, Chairman

Resources and relationships

We draw on a range of different resources and relationships in order to drive our business forward and, ultimately, deliver value to our shareholders.

Financial resources
The year-end cash position of £39.0m will allow the company to progress its pipeline of pre-clinical candidates towards investigational new drug (IND) funding.

Stock information
The Company is listed on AIM with the sticker SLN. The percentage of AIM securities that is not in public hands was 53.95% at 31 December 2016.

Physical resources
We are based at two sites: our headquarters in London and our laboratories (R&D) in Berlin. Our R&D not only houses state-of-the-art equipment but is located in the heart of one of the largest biomedical research facilities in Europe.

Our people
With our emphasis being on highly specific research, we depend on teams of skilled individuals collaborating together. By its innovative nature, gene silencing attracts the smartest graduates and most experienced professionals in the field. We work hard to create a working environment that encourages creativity, rewards commitment and is recognised as being a great place for the brightest minds to work.

Our patent estate
Legal advice received in 2016 regarding our IP has further increased our confidence that this element of our business alone represents a very significant risk/reward upside relative to the market capitalisation of Silence. We recognise that IP is a complex matter and have recently appointed a dedicated in-house Head of IP to ensure that our patent portfolio is maintained and prosecuted in the most effective manner.

Our partnerships and relationships
We maintain a network of partnerships and key relationships, including those with:

Academia and key opinion leaders
A significant portion of the technical expertise in RNA and around sophisticated models of disease sits within academia. We have worked and continue to work hand-in-glove with the leading talent, ensuring that we gain access to the latest thinking at an early stage and are therefore able to help direct it towards commercially-viable outcomes.

Industry
Our goal is to harness the commercial discipline and practical expertise found within industry. To this end, we build relationships with industry organisations and with other companies in our sector. As is the case with academia, our interactions with industry are founded on mutual trust and respect.

'Big pharma'
Although we have the capabilities to discover, develop and market a drug without external support, we recognise that it is advantageous to join forces with a major pharmaceutical company to progress a specific programme, to out-license certain applications of our IP or to co-develop novel technology. Our deal with Quark is an example of this, and we are committed to remaining alert to the exploitation of such opportunities.

"Our patent estate is a core asset with the potential to generate revenue through out-licensing deals, while we progress our programmes through clinical development and, ultimately, the market."

"Silence continues to provide a vibrant, innovative and challenging culture in which to work, and one where we seek to support and guide all employees in aspiring to fulfill their ultimate career potential."

Clinicians
Because some of our work is in the field of rare and orphan diseases, the number of patients able to take part in clinical trials is often limited. We communicate regularly with clinicians to ensure that we are able to access the appropriate patient groups and build an understanding of their needs and concerns.

Regulators
It is important to investors as well as to patients that timelines between concept and marketed drug are as short as possible. We engage with regulators, both direct and via industry bodies, to ensure they understand the challenges we face and the platform nature of our technology, while we maximise the likelihood of success of our candidates by following their guidance.

Defined goals

In the day to day management of the business, we have instigated an Executive Committee, operational below Board level, with defined functional goals and monthly reporting against key indices.

For 2017 we have defined, agreed and communicated our corporate goals throughout the business, and this has been cascaded to the development of individual personal goals for all employees.

We have reviewed our remuneration and benefit practices against benchmarked data in the UK and Europe and where necessary implemented adjustments against the data. We have introduced 4 x salary life cover for all employees, and enhanced our incentive provisions based on goal achievement, to ensure our remuneration package remains competitive and attractive. We plan to make further progress in 2017, including increased focus on performance management.

Corporate social responsibility

Animal welfare
Due to the nature of our work, we have no alternative but to use laboratory animals in our research and development activities. We are committed to the welfare of all animals and to minimising the number of animals used.

"We see partnerships with other companies and academic leaders as an essential component of our drug development strategy. We are flexible and committed to creating collaborations that maximise value for each of our partners."

Financial review

David Ellam
Chief Financial Officer

During 2016 Silence has carefully transitioned its R&D spend into the field of GalNAc conjugates. The year-end cash position of £39m will allow the Company to progress its pipeline of pre-clinical candidates towards IND filings.

Operating expenses £000's

Operating cash outflow £000's

Revenue

Revenue of £0.8m (2015: £nil) is a milestone payment receivable under a license from Quark Pharmaceuticals.

Research and development expenditure

Research and development expenditure increased to £8.7m during the year (2015: £7.1m). The additional investment included patent filing and prosecution costs as well as a greater use of reagents within testing.

Administrative expenses

Administrative expenses during the year increased to £4.0m (2015: £2.7m). Salaries and related costs increased by £0.8m. The variance included one-off payments to leavers, and higher bonus expenses as the bonus scheme was expanded across the business. Separately, 2015 included a miscellaneous provision release of £0.3m which was not repeated.

Finance and other income

Bank interest included in finance income remained at £0.2m (2015: £0.2m) in line with the average cash balances.

The foreign exchange gain was £1.4m (2015: £0.2m). This was primarily due to the impact upon Euro cash balances of the mid-year fall in Sterling versus the Euro.

Taxation

During the year, we received a research and development tax credit of £1.6m in the UK in respect of R&D expenditure in 2015. We have accrued £1.6m recognising a current tax asset in respect of 2016 research and development tax credits (2015: £1.3m) as we are now confident we are able to make this claim for the year.

Liquidity, cash and cash equivalents

The Group's cash & cash equivalents at year end totalled £39.0m, (2015: £51.9m). The cash outflow from operating activities was £10.1m (2015: £8.3m) against an operating loss of £11.9m (2015: £9.8m).

Other balance sheet items

Current trade and other receivables at year end totalled £1.4m (2015: £0.4m). The rise was due to the revenue receivable under the licence agreement with Quark (£0.8m).

Trade and other payables increased from £1.1m in 2015 to £1.6m in 2016. The ending 2015 accounts payable balance was low due to a high level of December 2015 payments which was not repeated in December 2016.

Financial assets available for sale are primarily the ordinary shares in Arrowhead Pharmaceuticals Inc. purchased in December 2016. At year end the investment was marked to market at £4.4m. The unrealised gain of £0.1m was recognised in the consolidated statement of comprehensive income.

Goodwill at year end was £7.7m (2015: £6.7m). The movement in goodwill during the year related to foreign exchange.

Post year end events

During January 2017, Silence purchased a further 4.5% of the issued share capital of Arrowhead Pharmaceuticals Inc. for £4.9m, bringing the total holding to 9.2%, as announced on 13 January 2017.

David Ellam
Chief Financial Officer
& Company Secretary
26 April 2017

Principal risks and uncertainties

The Board has adopted a risk management strategy designed to identify, assess and manage the risks that it faces.

	Principal risks	Action taken to manage these risks
Clinical and Regulatory Risk	There are currently no approved siRNA drugs on the market. It is possible that such drugs may not be approved for clinical or regulatory reasons.	New targets are rigorously assessed with regard to factors that may make any drug less likely to be approved, including, but not limited to, dosing and toxicology. The Group utilises innovation to lower dosing and minimise toxicological risks.
Technology and Innovation Risk	The Group has a low R&D spend compared to its competitors. There is a risk that competitors will be quicker to develop new technologies and to address novel gene targets much earlier than Silence.	The Group continues to prioritise innovation and is actively conducting research to gain a competitive edge. In tandem with these efforts, we monitor patent filings and data in the field to identify areas of science that have become too crowded.
Intellectual Property Risk	The Group has a robust existing patent portfolio and expects other companies to seek licenses to cover that portfolio as their products approach the market. The Group may incur substantial costs in defending this portfolio from challenges.	In managing the patent portfolio, the Group continually seeks to strengthen the existing IP position via patent extensions and continuations, combined with external legal opinions.
Finance Risk	Progressing a drug via clinical trials can be expensive and there is no guarantee that Silence will have sufficient funds available.	The Group will actively seek to secure partnerships or to out-license products in the pre-clinical phase in order to address any financing risk.

The Group's principal activity is biotechnology research and development. As with any business in this sector, there are risks and uncertainties relevant to the Group's business. The Board has adopted a risk management strategy designed to identify, assess and manage the significant risks that it faces. While the Board aims to identify and manage such risks, no risk management strategy can provide absolute assurance against loss.

The management and mitigation of risks is a key focus for the Board. The Board reviews risks at its regular Board meetings, including but not limited to a financial update, corporate development update and update on operations to oversee the management and mitigation of the principal risks faced by the Group, as set out above. The operational update includes a review of all R&D activities. The Board periodically reviews the significant risks facing the business; this review includes identifying operational risks, compliance risks, financial risks and risks to the achievement of goals and objectives. Set out above are the key risk factors associated with the business that have been identified through the Group's approach to risk management. Some of these risk factors are specific to the Group, and others are more generally applicable to the biotech industry in which the Group operates. The Group considers that these risk factors apply equally and therefore all should be carefully considered before any investment is made in Silence.

Financial and non-financial key performance indicators (KPIs)

The Directors consider cash and research and development spend to be the Group's financial KPIs at the current stage of the Company's development. These are detailed in the financial review. The Directors consider that the most important non-financial KPIs relate to the validation of our technologies, the number of drugs in development by stage of development and the number of research collaborations, all of which are discussed in the Chief Executive's review.

This report was approved by the Board of Directors.

Ali Mortazavi
Chief Executive Officer
26 April 2017

Board of Directors

Our Board is formed by five accomplished members, two Executive and three Non-Executive Directors. Together, they bring highly valuable experience across a variety of relevant disciplines to the running of the Company.

Ali Mortazavi
Chief Executive Officer

Appointed May 2013

Ali joined Silence in 2012, initially serving as Head of Strategy, and led the refinancing and refocusing of the business. He has extensive expertise in UK small companies, particularly in biotechnology and technology investments and ventures.
Ali has over 17 years' experience in finance having co-founded Evolution Securities in 2001, heading up the Group's principal trading division. Ali is an International Master of chess and has written numerous books and publications on chess openings and strategies.

Areas of expertise
Corporate finance, algorithmic trading, investment research and computer programming.

David Ellam
Chief Financial Officer

Appointed July 2016

David was appointed Chief Financial Officer and Company Secretary of Silence in July 2016. David holds a B.A. in English and Philosophy from Birmingham University, and is a qualified chartered accountant. Prior to joining Silence, David's relevant Biotech experience includes several senior finance roles within both UK and US publicly owned life science companies, most recently as Senior EUMEA Finance Director for BioMarin Pharmaceuticals Inc. from 2010 to 2016. Prior to that he was CFO at Plethora Solutions plc (2008-2009), and Group Financial Controller at Ark Therapeutics from 2001 to 2008, during which time Ark undertook an IPO on the London Stock Exchange.

Areas of expertise
Finance, applied to the biotechnology industry.

Dr. Stephen Parker
Chairman

Appointed September 2015

Stephen became Chairman in September 2015, having first joined the Board in November 2013. He brings substantial Board experience, with over thirty years' experience in the healthcare sector. Stephen was previously a Partner with the Celtic Pharma funds, Chief Financial Officer of Oxford GlycoSciences plc and a senior investment banker with Barings, Warburg's and Apax Partners.

Areas of expertise
Healthcare, finance, investment banking.

Current external roles
Chairman of Sareum Holdings plc and Non-Executive Director of GammaDelta Therapeutics Limited and Sp^2 Consulting Limited.

Alistair Gray
Non-Executive Director

Appointed November 2015

Alistair brings a wealth of strategic consultancy and business experience. Having trained as an accountant, his early career was in senior management positions with Unilever and John Wood Group PLC. Alistair was a Director of Arthur Young (now Ernst and Young) Management Consultants and PA Consulting Group for over ten years. Alistair previously chaired the Audit and Remuneration committees of AorTech International PLC and Highland Distillers PLC, as well as the Pension Trustee Board. Alistair also served as a Fellow of the Institute of Directors and Institute of Consultants. His key role at Silence is to chair the Audit and Risk Committee.

Areas of expertise
Strategy, management consulting.

Current external roles
Non-executive Director with other organisations serving on the board of one and chairing three Pension Trustee Boards.

Dr. Andy Richards CBE
Non-Executive Director

Appointed September 2016

Andy has an established track record in founding and scaling up innovative Biotech and Healthtech companies in the UK. His early career spanned positions with ICI (now AstraZeneca) and PA Technology, and he was a founder and executive director of Chiroscience plc. Since 1999 he has founded, invested in and helped to scale more than 25 innovative ventures including companies such as Vectura, Arakis, Cambridge Biotechnology Ltd and Geneservice. Andy is a founder member of the Cambridge Angels and a trustee of the British Science Association.

Areas of expertise
Business building, venture investment, biotechnology.

Current external roles
Director of Ieso Digital Health, Cancer Research Technology, Sensiia Ltd, and Cambridge University Hospitals NHS Foundation Trust. He is Chairman of Arecor, Congenica, Abcodia, and the Babraham Research Campus, and an advisor to Cambridge Innovation Capital and the UCL Technology Fund.

Corporate governance report

Dr. Stephen Parker
Chairman

The Directors support high standards of corporate governance and have established a set of corporate governance principles which they regard as appropriate for the stage of development of the Group. These principles are revised from time to time to ensure that they comply with best corporate governance practice.

This report provides general information on the Group's adoption of corporate governance principles. As an AIM-listed Company, Silence is not required to comply with the UK Corporate Governance Code, the set of recommended corporate governance principles for UK public companies issued by the Financial Reporting Council. However, the Directors support high standards of corporate governance and have established a set of corporate governance principles which they regard as appropriate for the stage of development of the Group. These principles are revised from time to time to ensure that they comply with best corporate governance practice, as far as practicable, given the Company's size and nature of its business.

Operation of the Board and its Committees

Composition of the Board

The Board consists of five Directors: two Executive Directors and three Non-Executive Directors including the Chairman. The Board's composition is geared towards its current stage of development and priorities. The skill set of the Board includes extensive knowledge of the pharmaceutical and biotechnology industries, strategic consultancy and corporate finance. The Nominations Committee is currently searching for a further Non-Executive Director with scientific/medical experience. Details of each of the Directors' experience and background are given in their biographies on pages 14 and 15.

Dr. Parker, as Chairman of the Board, is responsible for leading the Board and ensuring its effectiveness. Mr. Mortazavi, as Chief Executive Officer, is responsible for the operational management of the Group and implementation of Board strategy and policy.

The Board determines that all of the Non-Executive Directors are independent of the executive management and free from any relationship which could materially affect the exercise of their independent judgement.

All the Directors have access to the advice and services of the Company Secretary, who is responsible for ensuring that Board procedures and applicable regulations under the Company's Articles of Association or otherwise are complied with. Each Director is entitled, if necessary, to seek independent professional advice at the Company's expense. The Group maintains directors' and officers' liability insurance.

The Board holds around eight or nine scheduled meetings per year, with additional meetings and Board calls when circumstances and urgent business dictate. In the 12-month period under review, there were nine scheduled meetings. All Board and Committee meetings were fully attended by the relevant Directors throughout the year. All Directors receive the agenda and Board papers in advance of Board meetings to enable them to make an effective contribution. Between Board meetings, the Executive Directors maintain regular informal contact with Non-Executive Directors.

The Board reviews the strategy and at each meeting evaluates the progress of the Group towards achieving its annual objectives. It also analyses the risk of potential activities and monitors financial progress against budget.

Board meetings

Below is a table showing the number of different meetings which took place during 2016. The Board will continue to meet on a regular basis in order to review progress and agree strategy:

Type of meeting	Number of meetings
Board	9
Audit and Risk Committee	3
Remuneration Committee	3
Nomination Committee	3

Appointments to the Board and re-election

The Board has delegated the tasks of reviewing Board composition, searching for appropriate candidates and making recommendations to the Board on candidates to be appointed as Directors, to the Nomination Committee. Further details on the role of the Nomination Committee can be found below.

With regard to the re-election of Directors, the Company is governed by its Articles of Association (Articles). Under the Articles, the Board has the power to appoint a Director during the year but any person so appointed must stand for election at the next Annual General Meeting. Any Director who has been a Director at each preceding two Annual General Meetings and has not been re-appointed since, must retire from office at the next Annual General Meeting. The Director is then eligible to stand for re-appointment by the shareholders. David Ellam and Andy Richards will each stand for election at the 2017 Annual General Meeting having been appointed a Director since the last Annual General Meeting.

Conflicts of interest

Under the Articles of Association, the Directors may authorise any actual or potential conflict of interest a Director may have and may impose any conditions on the Director that are felt to be appropriate. Directors are not able to vote in respect of any contract, arrangement or transaction in which they have a material interest and they are not counted in the quorum. A process has been developed to identify any of the Directors' potential or actual conflicts of interest. This includes declaring any new conflicts before the start of each Board meeting.

The Board Committees

Membership of all three Board Committees is comprised of the Chairman and the other two Non-Executive Directors. All of the Board Committees are authorised to obtain, at the Company's expense, professional advice on any matter within their terms of reference and to have access to sufficient resources in order to carry out their duties.

The role of the Board

The key tasks of the Board are:

- setting the Company's values and standards;
- approval of long-term objectives and strategy;
- approval of revenue, expense and capital budgets and plans;
- oversight of operations ensuring adequate systems of internal controls and risk management are in place, ensuring maintenance of accounting and other records and compliance with statutory and regulatory obligations;
- review of performance in light of strategy and budgets ensuring any necessary corrective actions are taken;
- approval of the annual report and financial statements, material contracts and major projects;
- changes to structure, size and composition of the Board;
- determining remuneration policy for the Directors and approval of the remuneration of the Non-Executive Directors; and
- approval of communications with shareholders and the market.

Nomination Committee report

Duties

The main duties of the Nomination Committee are set out in its Terms of Reference and include:

- regularly reviewing the structure, size and composition (including the skills, knowledge, experience and diversity) required of the Board compared to its current position and making recommendations to the Board with regard to any changes;
- determining the qualities and experience required of the Group's Executive and Non-Executive Directors and for identifying suitable candidates, assisted where appropriate by recruitment consultants;
- formulating plans for succession for both Executive and Non-Executive Directors and in particular for the key roles of Chairman and Chief Executive;
- assessing the re-appointment of any Non-Executive Director at the conclusion of their specified term of office having given due regard to their performance and ability to continue to contribute to the Board in the light of the knowledge, skills and experience required; and
- assessing the re-election by shareholders of any Director having due regard to their performance and ability to continue to contribute to the Board in the light of the knowledge, skills and experience required and the need for progressive refreshing of the Board.

During the year, the Nomination Committee discussed and approved the appointment of David Ellam as Chief Financial Officer on 18 July 2016, and of Andy Richards as a Non-Executive Director and Chair of the Remuneration Committee on 8 September 2016.

Board		
Audit and Risk Committee	**Remuneration Committee**	**Nomination Committee**
Alistair Gray (Chairman)	Andy Richards (Chairman)	Stephen Parker (Chairman)
Stephen Parker	Alistair Gray	Alistair Gray
Andy Richards	Stephen Parker	Andy Richards

Corporate governance continued

Accountability

Internal controls and risk management

The Company has in place a system of internal financial controls commensurate with its current size and activities, which is designed to ensure that the possibility of misstatement or loss is kept to a minimum. These procedures include the preparation of management accounts, forecast variance analysis and other ad hoc reports. Risks throughout the Group are considered and reviewed on a regular basis. Risks are identified and mitigating actions put into place as appropriate. Principal risks identified are set out in the strategic report on page 13.

Internal control and risk management procedures can only provide reasonable and not absolute assurance against material misstatement.

Financial and business reporting

The Board seeks to present a balanced and understandable assessment of the Group's position and prospects in all half year, final and price-sensitive reports and other information required to be presented by statute. The Board receives a number of reports to enable it to monitor and clearly understand the Group's financial position. The Group maintains a Disclosure Policy to enhance the process for ensuring that price-sensitive information is identified effectively and all communications with the market are released in accordance with expected time scales.

Communication with shareholders

Contact with major shareholders is principally maintained by the Chief Executive Officer and the Chief Financial Officer, who ensure that their views are communicated to the Board as a whole. The Chairman is also available to discuss governance and other matters directly with major shareholders, both private and institutional. The Board believes that appropriate steps have been taken during the reporting period to ensure that the members of the Board, and in particular the Non-Executive Directors, develop an understanding of the views of major shareholders about the Company.

The Company uses its corporate website (www.silence-therapeutics.com) to communicate with institutional shareholders and private investors, and the website also contains the latest announcements, press releases, published financial information, current projects and other information about the Company. The annual report and financial statements is a key communication document and is available on the Company's website.

This year's Annual General Meeting of the Company will be held on 2 June 2017. The Notice of Annual General Meeting is included with the annual report and financial statements and is available on the Company's website. Separate resolutions are provided on each issue so that they can be given proper consideration. Proxy votes are counted and the level of proxies lodged on each resolution reported after it has been dealt with on a show of hands.

Audit and Risk Committee report

> **"The Committee's primary focus is ensuring that the Group maintains the highest standards around financial reporting governance."**
>
> **Alistair Gray**
> Chair of the Audit and Risk Committee

Committee's primary focus

On behalf of the Board, I am delighted to present Silence's Audit and Risk Committee ("the Committee") report for 2016. The Committee's primary focus is ensuring that the group maintains the highest standards around financial reporting governance, together with timely risk identification and mitigation.

The Committee meets at key times during the company's reporting cycle, and additionally I meet with the auditors as well as executive management to discuss issues arising.

Roles and responsibilities

The Committee has written terms of reference. The Committee advises the Board on the integrity of the financial statements of the Company, including its annual and half year reports.

The Committee reviews and challenges where necessary any changes to, and consistency of, accounting policies, advising whether the Company has followed appropriate accounting standards and made appropriate estimates and judgments, taking into account the views of the external auditor, the going concern assumption and all material information presented with the financial statements.

The Committee keeps under review the effectiveness of the Company's internal control systems (including financial, operational and compliance controls and risk management) and will review and approve the statements to be included in the annual report and financial statements concerning internal controls and risk management. On an annual basis, the Committee assesses the need for an internal audit function.

In managing the relationship with the Company's external auditor, the Committee considers and makes recommendations to the Board, to be put to shareholders for approval at the Annual General Meeting, in relation to the appointment, re-appointment and removal of the Company's external auditor. The Committee also oversees the relationship with the external auditor, including approval of their remuneration, approval of their terms of engagement, annual assessment of their independence and objectivity taking into account relevant professional and regulatory requirements and the relationship with the auditor as a whole, including the provision of any non-audit services. The breakdown of fees between audit and non-audit services is provided in note 5 to the financial statements.

PricewaterhouseCoopers LLP was appointed as the external auditor in 2014. The Committee ensures that at least every ten years the audit services contract is put out to tender and oversees the selection process. Having reviewed the auditor's independence and performance the Committee is recommending that PricewaterhouseCoopers LLP be reappointed as the Company's auditor at the next Annual General Meeting.

Activities in 2016

In 2016 the Committee reviewed the 2015 preliminary announcement, the 2015 annual report and the 2016 interim announcement. A detailed risk assessment was carried out and the Executive initiated a work programme to assess the most important and urgent risks. Executive management cascade these risks across the business, and reports on progress are made to the Board quarterly.

The Committee consists entirely of independent Non-Executive Directors. The Chairman, Alistair Gray, has extensive financial and governance experience.

- Alistair Gray (Chairman)
- Dr. Stephen Parker
- Dr. Andy Richards

At present the Company does not have an internal audit function. Given the current size of the Company and control systems that are in place, the Committee believes that there is sufficient management oversight to highlight any areas of weaknesses in the financial reporting systems. The Committee will review the need for an internal audit function at least annually.

The auditor prepares an Audit Plan for the audit of the full year financial statements which was presented to the Committee and discussed in December 2016. The Audit Plan sets out the scope of the audit, areas to be targeted and audit timetable. Following the audit, the auditor presented its findings to the Committee for discussion.

Alistair Gray
Chair of the Audit and Risk Committee
26 April 2017

Remuneration Committee report

Dr. Andy Richards, CBE
Chair of the Remuneration Committee

"Reflecting a renewed focus upon both the organisation and sustained performance, the Remuneration Committee has produced a revised Remuneration Policy for implementation in 2017."

Dear shareholder,
2016 was a year of major changes to the senior executive team at Silence. In January 2016, Dr. Simon Sturge stepped down from the Board followed in April 2016 by Lars Karlsson and Stuart Collinson. In June 2016 both Timothy Freeborn and Dr. Michael Khan also stepped down. At the same time, it was decided to form a more US-style board with just two Executive Directors (CEO and CFO). David Ellam joined as CFO in July 2016, and I joined as a Non-Executive Director in September 2016. The Board is also seeking to expand during 2017, with at least one further Non-Executive Director with scientific expertise.

In April 2016, Ali Mortazavi was granted options over 2,000,000 shares in the unapproved employee share option plan, with challenging share price hurdles. In July 2016, David Ellam was granted options in the same scheme over 200,000 shares on his appointment to the Board, vesting after 3 years with no hurdles, exercisable at market price on issue.

The Committee increased the base salary for Ali Mortazavi on 1 January 2016 from £180,000 to £200,000, and on 1 January 2017 to £218,000. David Ellam's base salary on joining on 18 July 2016 was £180,000 and on 1 January 2017 it was increased to £187,450.

Reflecting a renewed focus upon organisational matters, the Remuneration Committee has produced a revised and more systematic Remuneration Policy for implementation in 2017, details of which are published within this report. This is intended to bring Silence in line with Biotech industry normal practices and to provide greater transparency around executive-level remuneration.

Yours sincerely

Dr Andy Richards, CBE
Chair of the Remuneration Committee
26 April 2017

Directors' remuneration policy

Silence's remuneration policy is driven by the Company's strategy and business model and has been designed to reflect the Committee's remuneration philosophy, as summarised below.

Philosophy Support value creation for shareholders over the longer term and create alignment with shareholders

	Fixed remuneration			Variable remuneration	
Element	Base salary	Benefits	Pension	Annual bonus	LTIP
How it is influenced by the remuneration philosophy.	Broadly mid-market.			Set no higher than mid-market and is the variable element of lesser significance. Determined by stretch corporate and personal targets that support Silence's annual goals and its overall strategy.	The more significant element of the package with stretch targets linked to longer term share performance. Silence is in discussions with shareholders around the creation of an LTIP for 2018 awards.

Whilst the Committee does not consult directly with employees regarding its policy for Directors, in developing its policy the Committee has regard to the policy for remuneration of employees across the Group. It does so in a number of respects:

- All employees are rewarded with a remuneration package that includes certain key benefits such as life assurance, permanent health insurance, private medical insurance, access to pension benefits, participation in Silence's all-employee share schemes and eligibility to receive a bonus. Internally a review is underway designed to ensure that levels of remuneration for all key employees are up to date and competitive within the sector.
- The bonus scheme for Directors and employees is designed to reward performance, and all individuals work towards challenging corporate and individual goals.
- When determining the annual salary increases and remuneration packages for the Executive Directors, the Committee considers the general base salary increase for the broader employee population, together with ensuring that salaries are competitive within the sector.

The remuneration of senior executives below Board level is reviewed by the Committee on an annual basis. The remuneration packages of these executives are broadly consistent with the policy outlined above, with the overall impact of the role and the individual being considered as well as relevant market comparative data, save that lower bonus percentages and lower share option opportunities are applicable.

The following table and accompanying notes set out the main principles of reward for the Executive Directors of the Group.

Executive Directors

Purpose and link to strategy	Operation	Maximum opportunity	Performance metrics
Base salary			
To recruit and retain Executives of the highest calibre who are capable of delivering the Group's strategic objectives, reflecting the individual's experience and role within the Group. Base salary is designed to provide an appropriate level of fixed income to avoid an over-reliance on variable pay elements that could encourage excessive risk taking.	The Committee aims to set base salary at levels that are broadly aligned with the mid-points for equivalent roles in comparable companies in the UK, adjusted to reflect company size and complexity. Salaries are normally reviewed annually and changes are generally effective from 1 January. The annual salary review of Executive Directors takes a number of factors into consideration, including: › business performance; › salary increases awarded to the overall employee population; › skills and experience of the individual over time; › scope of the individual's responsibilities; › changes in the size and complexity of the Group; › market competitiveness; and › the underlying rate of inflation.	Current annual salaries from January 2017 are as follows: CEO: £218,000 CFO: £187,450 Base salary increases are awarded at the discretion of the Committee; however, salary increases will normally be no greater than the inflationary pay rises awarded to the wider workforce. Where a higher level of increase is appropriate given the performance and contribution of the incumbent, or where there has been a change in responsibilities, the Committee retains the discretion to award more significant base salary increases.	No formal metrics, although any increases take account of Group performance and Executive Director appraisal against objectives.

Remuneration Committee report continued

Purpose and link to strategy	Operation	Maximum opportunity	Performance metrics
Benefits			
Benefits in kind offered to Executive Directors are provided on a market-competitive basis, to assist with the retention and recruitment of staff.	The Company aims to offer benefits that are in line with market practice. The main benefits currently provided are life assurance and private medical and dental insurance. Under certain circumstances the Group will offer relocation allowances to employees.	The value of each benefit is not predetermined and is based upon the cost to the Group.	Not performance related.
Pensions			
The Group aims to provide market-competitive retirement benefits, to reward sustained contribution.	In the UK, the Group operates a defined contribution scheme and all UK-based employees, including Executive Directors, are invited to participate.	Up to 8% of basic salary contribution to the UK Personal Pension Plan.	Not performance related.
Annual performance bonus			
An annual cash bonus rewards the achievement of stretch objectives that support the Group's corporate goals and delivery of the business strategy together with specific goals in relation to personal performance.	Objectives are agreed with the Committee, and the Board as a whole, at the start of each financial year. Different performance measures and weightings may be used each year, as agreed with the Committee, to take into account changes in the business strategy. Bonuses are paid at the discretion of the Committee. The Committee takes into account overall corporate performance and individual performance when determining the final bonus amount to be awarded. Bonuses are normally paid in cash, typically in January. Under the rules of the scheme, the Committee can claw back up to 100% of the bonus awarded in the event of material misstatement of the Company's financial results, an error in assessing the performance conditions to which an award is subject or for any other matter which it deems relevant.	From January 2017, annual cash bonuses are limited to a maximum of 100% of base salary for each Executive Director.	Corporate goals typically include development of pipeline and platform, partnering successes, revenue generation, strengthening of Intellectual Property and control of cash expenditure, although the Committee has the discretion to set other targets. Goals set are specific, measurable and are linked to the Group's longer- term strategy.
Long-Term Incentive Plan (LTIP) (under consultation during 2017, for implementation in 2018)			
The Remuneration Committee believes that a key component of the overall remuneration package is the provision of equity awards to senior executives through an LTIP, which is designed to develop a culture which encourages strong corporate performance on an absolute and relative basis to align with shareholder interests.	Annual award of nominal cost options that vest according to performance conditions measured over at least three financial years. Awards will be subject to claw-back where there has been a misstatement of the Company's financial results, lack of protection of the Company's intellectual property, an error in assessing the performance conditions to which an award is subject or for any other matter which the Committee deems relevant.	To be agreed during 2017.	To be agreed during 2017 and will be linked to share price performance hurdles.
All employee share option schemes			
All employees, including Executive Directors, are offered the opportunity to participate in the EMI approved share option plan and the unapproved employee share option plan.	The schemes will operate on standard terms and include leaver provisions. Options will be priced on the market value at the time of grant and vest after 3 years.	New joiners may receive an allocation of options based upon salary. Annual awards may be made at the discretion of the Board based upon seniority and contribution.	Usually not performance related and no performance conditions apply.

Chairman and Non-Executive Directors

Purpose and link to strategy	Operation	Maximum opportunity	Performance metrics
Set at a level that is sufficient to attract and retain high-calibre Non-Executives who contribute to the business.	The Chairman and the Non-Executive Directors receive fees paid in cash, with additional fees received for chairing committees of the Board. Fees are paid monthly and reviewed annually. The Chairman and the Non-Executive Directors do not participate in any performance-related incentive schemes, nor do they receive any benefits in connection with their roles other than group life assurance, and, in the case of the Chairman of the Board, a company pension contribution, private medical insurance & telecommunication expenses. During 2016, a comprehensive review of Executive roles and remuneration was conducted. During 2017 and in the light of Board changes, an analogous review of roles and remuneration will be conducted for the Non-Executive Directors including the Chairman.	When reviewing fee levels, account is taken of market movements in the fees of Non- Executive Directors, Board Committee responsibilities and ongoing time commitments.	Not performance related.

In operating its policy, the Committee has a number of discretions set out in the approved policy and the relevant sections of the various plan rules.

Other remuneration policies

Termination and loss of office payments

The Group's policy on remuneration for Executive Directors who leave the Group is consistent with general market practice and is set out below. The Committee will exercise its discretion when determining amounts that should be paid to leavers, taking into account the facts and circumstances of each case. When calculating termination payments, the Committee will take into account a variety of factors, including individual and Company performance, the length of service of the Executive Director in question and, where appropriate, the obligation for the Executive Director to mitigate loss.

In the case of a "good leaver", the following policy will normally apply:

- notice period of six months and pension and contractual benefits, or payment in lieu of notice;
- statutory redundancy payments will be made, as appropriate;
- Executives have no entitlement to a bonus payment in the event that they cease to be employed by the Group; however, they may be considered for a pro-rated award by the Committee in good leaver circumstances;
- any share-based entitlements granted to an Executive Director under the Company's share and share option plans will be determined based upon the relevant plan rules; and
- the Committee may also provide for the leaver to be reimbursed for a reasonable level of legal fees in connection with a settlement agreement.

In circumstances in which a leaving Director may be entitled to pursue a legal claim, the Company may negotiate settlement terms if it considers this to be in the best interests of the Company and, with the approval of the Committee on the remuneration elements therein, enter into a settlement agreement.

Executive Directors' service contracts

It is the Group's policy that Executive Directors should have contracts with an indefinite term and which provide for a maximum period of six months' notice.

The Executive Directors may accept outside appointments, with prior Board approval, provided that these opportunities do not negatively impact on their ability to fulfil their duties to the Group. Whether any related fees are retained by the individual or are remitted to the Group will be considered on a case-by-case basis.

Non-Executive Directors' terms of engagement

All Non-Executive Directors have specific terms of engagement which are terminable on not less than three months' notice by either party and not less than six months' notice in the case of the Chairman.

The remuneration of Non-Executive Directors is determined by the Board within the limits set by the Articles of Association and based on a review of fees paid to Non-Executive Directors of similar companies.

A Board evaluation has been performed and the results of this exercise confirmed that all Non-Executive Directors were independent.

Remuneration for new appointments

Where it is necessary to recruit or replace an Executive Director, the Committee has determined that the new Executive Director will receive a compensation package in accordance with the provisions of the Policy.

In setting base salaries for new Executive Directors, the Committee will consider the existing salary package of the new Director and the individual's level of experience.

Remuneration Committee report continued

In setting the annual performance bonus, the Committee may wish to set different performance metrics (to those of other Executive Directors) in the first year of appointment. Where it is appropriate to offer a below-median salary on initial appointment, the Committee will have the discretion to allow phased salary increases over a period of time for a newly appointed Director, even though this may involve increases in excess of inflation and the increases awarded to the wider workforce.

The Committee wishes to retain the ability to make buyout awards to a new Executive Director to facilitate the recruitment process. The amount of any such award would not exceed the expected value being forfeited and, to the extent possible, would mirror the form of payment, timing and degree of conditionality, etc. Where awards are granted subject to performance conditions, these would be relevant to Silence Therapeutics Group. Any such award would only be made in exceptional circumstances and shareholders would be informed of any such payments at the time of appointment. Share-based awards would be made using the existing share plans.

In respect of internal appointments, any commitments entered into in respect of a prior role, including variable pay elements, may be allowed to pay out according to its prior terms.

For external and internal appointments, the Committee may consider it appropriate to pay reasonable relocation or incidental expenses, including payment of reasonable legal expenses. Tax equalisation may be considered if an Executive Director is adversely affected by taxation due to their employment with the Company.

The terms of appointment for a Non-Executive Director would be in accordance with the remuneration policy for Non-Executive Directors as set out in the policy table.

Remuneration Committee ("the Committee")

Governance

The Committee takes account of information from both internal and independent sources, including New Bridge Street (NBS) (Aon plc's executive remuneration consultancy) and Radford surveys.

The Group's CFO provides updates to the Committee, as required, to ensure that the Committee is fully informed about pay and performance issues throughout the Group. The Committee takes these factors into account when determining the remuneration of the Executive Directors and senior executives.

No Executive Director or employee is allowed to participate in any discussion directly relating to their own personal conditions of service or remuneration.

Role

The Committee's principal function is to support Silence's strategy by ensuring that those individuals responsible for delivering the strategy are appropriately incentivised through the operation of Silence's remuneration policy. In determining the Group's current policy, and in constructing the remuneration arrangements for Executive Directors and senior employees, the Board, advised by the Committee, aims to provide remuneration packages that are competitive and designed to attract, retain and motivate Executive Directors and senior employees of the highest calibre, and align incentives with shareholder interest.

The Committee is responsible for:

- setting a remuneration policy that is designed to promote the long-term success of the Company;
- ensuring that the remuneration of the Executive Directors and other senior executives reflects both their individual performance and their contribution to the overall Group results;
- determining the terms of employment and remuneration of the Executive Directors and Senior Executives, including recruitment and retention terms;
- approving the design and performance targets of any annual incentive schemes that include the Executive Directors and senior executives;
- agreeing the design and performance targets, where applicable, of all share incentive plans requiring shareholder approval;
- rigorously assessing the appropriateness and subsequent achievement of the performance targets related to any share incentive plans;
- recommending to the Board the fees to be paid to the Chairman. The Chairman is excluded from this process; and
- the selection and appointment of the external advisors to the Committee to provide independent remuneration advice where necessary.

Annual performance bonus – 2017

From January 2017, all employees are eligible for an annual discretionary cash bonus, whereby performance objectives are established at the beginning of the financial year by reference to suitably challenging corporate goals. The scheme is offered to all staff below Board level and maximum bonus opportunities range from 5% to 30% of salary, depending on grade. Bonus payments are not pensionable.

The Committee will set consistently stretching corporate goals, including goals around development of pipeline and platform, partnering successes, revenue generation, strengthening of Intellectual Property and control of cash expenditure.

For 2017, 80% of the annual bonus is by reference to corporate goals, and 20% to individual goals. In the future, the Committee expects the % attributable to individual goals to increase.

The corporate goals are weighted as follows:

Pipeline development	40%
IP strengthening	10%
Financial resources & organisational succession planning	20%
New deals and strategic partnerships	30%
Total	100%

For 2017, the executive Directors' annual cash bonus also comprises the split of 80% corporate goals (same as above), and 20% personal goals.

Annual remuneration report

Please see note 6 of the financial statements for Directors' remuneration. Information in respect of share awards and Directors' shareholdings during the year is set out below.

Director	At 1 January 2016	Exercised	Awarded	Lapsed	At 31 December 2016	Exercise price pence	Earliest date of exercise	Latest date of exercise
Ali Mortazavi								
Unapproved Scheme	1,728,078	—	—	—	1,728,078	25.0	01.08.14	31.07.24
Unapproved Scheme	—	—	2,000,000[1]	—	2,000,000	117.0	18.04.19	18.04.26
David Ellam								
Unapproved Scheme	—	—	200,000	—	200,000	110.6	18.07.19	18.07.26
Timothy Freeborn								
Unapproved Scheme[2]	190,000	—	—	—	190,000	25.0	28.07.14	31.12.17
Unapproved Scheme[3]	80,000	—	—	—	80,000	125.0	26.06.16	26.06.26
Unapproved Scheme[4]	40,000	—	—	(40,000)	—	282.0	—	—
Unapproved Scheme[5]	—	—	200,000	(100,000)	100,000	117.0	31.12.16	31.12.18
Michael Khan								
Unapproved Scheme	80,000[6]	—	—	—	80,000	125.0	31.12.15	31.12.24
Unapproved Scheme	80,000[6]	—	—	—	80,000	125.0	26.06.16	26.06.26
Lars Karlsson								
Unapproved Scheme	153,000	—	—	(153,000)	—	205.0	—	—

Director	Number of ordinary shares	Percentage of issued share capital
Ali Mortazavi	1,937,399	2.78
David Ellam	—	—
Dr Stephen Parker	1,976	0.02
Alistair Gray	—	—
Dr Andy Richards	—	—

1 Options awarded 18 April 2016 at exercise price of 117p from closing price on 15 April 2016, and will vest over 3 years. These options had the following hurdles: 200,000 at 117p; 600,000 at 176p; 600,000 at 234p and 600,000 at 293p.
2 Under the terms of the unapproved employee share option plan grant of 27th July 2012, these fully vested options must be exercised within one year of the leaving date (which was 31.12.2016).
3 Under the terms of the departure agreement dated 17th June 2016, the £4 price hurdle was abolished and the options may be exercisable up to two years from the date of departure (which was 31.12.2016). The prior condition was exercisable up to one year after the date of departure.
4 Under the terms of the departure agreement, these options were surrendered on 17th June 2016.
5 Under the terms of the departure agreement, these options were granted on 17th June 2016 at the market price of 117.0p. The vesting was 100,000 on 1st May 2017 and 100,000 on 1st May 2019, exercisable up to two years after the departure date. In recognition of his contribution in the second half of 2016, the first 100,000 were deemed to vest on 31.12.16.
6 In recognition of his continuing contribution, the Remuneration Committee agreed that these options should continue on existing terms instead of expiring one year after departure as an employee and Director.

The average share price for the year was 119.4p (2015: 245.7p).

This report was approved by the Board of Directors and signed on its behalf by:

Dr. Andy Richards, CBE
Chair of the Remuneration Committee
26 April 2017

Directors' report

The Directors present their report and the audited financial statements of the Group for the year ended 31 December 2016.

Principal activities
The Group is focused on the discovery, delivery and development of RNA therapeutics.

Review of the business and future developments
The strategic report describes research and development activity during the year as well as outlining future planned developments. Details of the financial performance, including comments on the cash position and research and development expenditure, are given in the financial review. Principal risks and are given in the strategic report.

Health, safety and environment
The Directors are committed to ensuring the highest standards of health and safety, both for their employees and for the communities within which the Group operates. The Directors are committed to minimising the impact of the Group's operations on the environment.

Employees
The Directors are committed to continuing involvement and communication with employees on matters affecting both employees and the Company. Management conducts regular meetings with all employees on site.

Political contributions
Neither the Company nor any of its subsidiaries made any political donations or incurred any political expenditure during the year (2015: nil).

Research and development
In 2016, the Group spent £8.7m on research and development (2015: £7.1m). See the Chief Executive Officer's strategic perspective on pages 4 and 5 for more information.

Subsequent events
A description of subsequent events is set out in note 26 to the financial statements.

Financial risk management
A description of financial risk management is set out in note 24 to the financial statements.

Results and dividends
The Group recorded a loss for the year before taxation of £10.4m (2015: £9.4m). Loss after tax for the year was £8.4m (2015: £6.6m). Further details are given in the financial review. The Group is not yet in a position to pay a dividend and the loss for both periods has been added to accumulated losses.

Indemnification of Directors
Qualifying third party indemnity provisions (as defined in the Companies Act 2006) are in force for the benefit of Directors and former Directors who held office during 2016 and up to the signing of the annual report.

Directors

The Directors who served at any time during the year or since the year end were:

	Job title	Appointed	Resigned
Ali Mortazavi	Chief Executive Officer		
David Ellam	Chief Financial Officer	18 July 2016	
Timothy Freeborn	Chief Financial Officer		17 June 2016
Dr Michael Khan	Executive Director		17 June 2016
Dr Lars Karlsson	Head of Research and Development		5 April 2016
Simon Sturge	Non-Executive		18 January 2016
Alistair Gray	Non-Executive		
Dr Stephen Parker	Non-Executive/Chairman		
Dr Andy Richards CBE	Non-Executive	5 September 2016	
Stuart Collinson	Non-Executive	18 January 2016	5 April 2016

Simon Sturge remained a Non-Executive Director and Chair of the Remuneration Committee until his resignation from the Board on 18 January 2016. On 18 January 2016 Stuart Collinson was appointed as a Non-Executive Director replacing Simon Sturge, resigning from the Board on 5 April 2016. On the same date, Lars Karlsson resigned from the Board.

On 17 June 2016 Timothy Freeborn and Dr Michael Khan both resigned from the Board. David Ellam joined the Board as Chief Financial Officer on 18 July 2016.

On 5 September 2016 Dr Andy Richards joined the Board as a Non-Executive Director and Chair of the Remuneration Committee.

The interests of the Directors in the share options of the Company are set out in the Directors' remuneration report.

Substantial interests

At 31 December 2016 the Company had been informed of the following substantial interests of over 2% in the issued share capital of the Company:

	Number issued	Percentage of share capital
Richard Griffiths	15,299,306	21.9%
Robert Keith	12,085,371	17.3%
Invesco Limited	8,333,333	11.9%
Henderson Global Investors	5,365,006	7.7%
Aviva	4,324,231	6.2%
Woodford Investment Management LLP	4,166,666	6.0%
Sarossa plc	2,189,467	3.1%
Ali Mortazavi	1,937,399	2.8%
Simpson Financial	1,601,452	2.2%
Robert Quested	1,510,000	2.2%

Going concern

The financial statements have been prepared on a going concern basis that assumes that the Group will continue in operational existence for the foreseeable future.

The Group had a net cash outflow from operating activities for 2016 of £10.1m (2015: £8.3m), and at 31 December 2016 had cash and cash equivalent balances of £39.0m and nil on short-term deposit (2015: £51.9m and £nil on deposit). Based on current forecasts, the cash on hand at the date of this report will support operations for several years.

This report was approved by the Board of Directors and signed on its behalf by:

Dr. Stephen Parker
Chairman
26 April 2017

Statement of Directors' responsibilities in respect of the financial statements

The Directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulation.

Company law requires the Directors to prepare financial statements for each financial year. Under that law the Directors have prepared the Group financial statements in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union and Company financial statements in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union. Under company law the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Company and of the profit or loss of the Group and company for that period. In preparing the financial statements, the Directors are required to:

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

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Group and Company's transactions and disclose with reasonable accuracy at any time the financial position of the Group and Company and enable them to ensure that the financial statements comply with the Companies Act 2006 and, as regards the group financial statements, Article 4 of the IAS Regulation.

The Directors are also responsible for safeguarding the assets of the group and 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 company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The Directors consider that the annual report and accounts, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group and Company's performance, business model and strategy.

Each of the Directors, whose names and functions are listed in the Governance section of the Annual Report confirm that, to the best of their knowledge:

- the Company financial statements, which have been prepared in accordance with IFRS as adopted by the European Union, give a true and fair view of the assets, liabilities, financial position and loss of the Company;
- the Group financial statements, which have been prepared in accordance with IFRS as adopted by the European Union, give a true and fair view of the assets, liabilities, financial position and loss of the Group; and
- the Directors' report includes a fair review of the development and performance of the business and the position of the Group and Company, together with a description of the principal risks and uncertainties that it faces.

In the case of each Director in office at the date the Directors' Report is approved:

- so far as the Director is aware, there is no relevant audit information of which the Group and Company's auditors are unaware; and
- they have taken all the steps that they ought to have taken as a Director in order to make themselves aware of any relevant audit information and to establish that the Group and Company's auditors are aware of that information.

On behalf of the Board

David Ellam
Chief Financial Officer and
Company Secretary
26 April 2017

Financial statements

Independent auditors' report
to the members of Silence Therapeutics plc

Report on the financial statements
Our opinion
In our opinion:

- Silence Therapeutics plc's Group financial statements and Company financial statements (the "financial statements") give a true and fair view of the state of the Group's and of the Company's affairs as at 31 December 2016 and of the Group's loss and the Group's and the Company's cash flows for the year then ended;
- the Group financial statements have been properly prepared in accordance with International Financial Reporting Standards ("IFRSs") as adopted by the European Union;
- the Company financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union and as applied in accordance with the provisions of the Companies Act 2006; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

What we have audited
The financial statements, included within the Annual Report and financial statements 2016 (the "Annual Report"), comprise:

- the Consolidated and Company balance sheets as at 31 December 2016;
- the Consolidated income statement and Consolidated statement of comprehensive income for the year then ended;
- the Consolidated and Company cash flow statements for the year then ended;
- the Consolidated and Company statements of changes in equity for the year then ended; and
- the notes to the financial statements, which include a summary of significant accounting policies and other explanatory information.

The financial reporting framework that has been applied in the preparation of the financial statements is IFRSs as adopted by the European Union and, as regards the Company financial statements, as applied in accordance with the provisions of the Companies Act 2006, and applicable law.

In applying the financial reporting framework, the directors have made a number of subjective judgements, for example in respect of significant accounting estimates. In making such estimates, they have made assumptions and considered future events.

Opinions on other matters prescribed by the Companies Act 2006
In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic report and the Directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic report and the Directors' report have been prepared in accordance with applicable legal requirements.

In addition, in light of the knowledge and understanding of the Group, the Company and their environment obtained in the course of the audit, we are required to report if we have identified any material misstatements in the Strategic report and the Directors' report. We have nothing to report in this respect.

Other matters on which we are required to report by exception
Adequacy of accounting records and information and explanations received
Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the Company financial statements are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

Directors' remuneration
Under the Companies Act 2006 we are required to report to you if, in our opinion, certain disclosures of directors' remuneration specified by law are not made. We have no exceptions to report arising from this responsibility.

Responsibilities for the financial statements and the audit

Our responsibilities and those of the Directors

As explained more fully in the Statement of Directors' responsibilities set out on page 28, 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) ("ISAs (UK & Ireland)"). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

This report, including the opinions, has been prepared for and only for the Company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

What an audit of financial statements involves

We conducted our audit in accordance with ISAs (UK & Ireland). An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of:

- whether the accounting policies are appropriate to the Group's and the Company's circumstances and have been consistently applied and adequately disclosed;
- the reasonableness of significant accounting estimates made by the directors; and
- the overall presentation of the financial statements.

We primarily focus our work in these areas by assessing the directors' judgements against available evidence, forming our own judgements, and evaluating the disclosures in the financial statements.

We test and examine information, using sampling and other auditing techniques, to the extent we consider necessary to provide a reasonable basis for us to draw conclusions. We obtain audit evidence through testing the effectiveness of controls, substantive procedures or a combination of both.

In addition, we read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report. With respect to the Strategic report and Directors' report, we consider whether those reports include the disclosures required by applicable legal requirements.

Stuart Newman (Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
Cambridge

26 April 2017

Consolidated income statement
year ended 31 December 2016

	Note	2016 £000s	2015 £000s
Revenue	3	**770**	—
Research and development costs		**(8,711)**	(7,114)
Administrative expenses		**(3,965)**	(2,655)
Operating loss	5	**(11,906)**	(9,769)
Finance and other income	7	**1,544**	340
Loss for the year before taxation		**(10,362)**	(9,429)
Taxation	8	**1,922**	2,784
Loss for the year after taxation		**(8,440)**	(6,645)
Loss per ordinary equity share (basic and diluted)	9	**(12.1p)**	(10.4p)

Consolidated statement of comprehensive income
year ended 31 December 2016

	Note	2016 £000s	2015 £000s
Loss for the year after taxation		**(8,440)**	(6,645)
Other comprehensive income/(expense), net of tax:			
Items that may subsequently be reclassified to profit & loss:			
Exchange differences arising on consolidation of foreign operations		**1,705**	(616)
Unrealised gain on financial assets available for sale	13	**118**	—
Total other comprehensive income/(expense) for the year		**1,823**	(616)
Total comprehensive expense for the year		**(6,617)**	(7,261)

Consolidated balance sheet
at 31 December 2016

	Note	2016 £000s	2015 £000s
Non-current assets			
Property, plant and equipment	10	**1,375**	1,093
Goodwill	11	**7,709**	6,663
Other intangible assets	12	**45**	6
Available-for-sale financial assets	13	**4,417**	—
Other receivables	15	**236**	233
		13,782	7,995
Current assets			
Trade and other receivables	15	**1,397**	370
R&D tax credit receivable		**1,600**	1,271
Investments held for sale		**3**	2
Cash and cash equivalents	16	**39,012**	51,907
		42,012	53,550
Current liabilities			
Trade and other payables	17	**(1,610)**	(1,118)
Total assets less current liabilities		**54,184**	60,427
Net assets		**54,184**	60,427
Capital and reserves attributable to the owners of the parent			
Share capital	19	**3,490**	3,490
Capital reserves	21	**163,641**	165,074
Translation reserve		**3,003**	1,298
Profit & loss deficit		**(115,950)**	(109,435)
Total equity		**54,184**	60,427

The financial statements on pages 32 to 55 were approved by the Board on 26 April 2017 and signed on its behalf.

David Ellam
Chief Financial Officer
and Company Secretary

Ali Mortazavi
Chief Executive Officer

Company number: 02992058

Consolidated statement of changes in equity
year ended 31 December 2016

	Share capital £000s	Capital reserves £000s	Translation reserve £000s	Accumulated losses £000s	Total equity £000s
At 1 January 2015	2,605	126,197	1,914	(102,958)	27,758
Recognition of share-based payments	—	777	—	—	777
Lapse of vested options in period	—	(168)	—	168	—
Shares issued in year, net of expenses	885	38,268	—	—	39,153
Transactions with owners recognised directly in equity	885	38,877	—	168	39,930
Loss for year	—	—	—	(6,645)	(6,645)
Other comprehensive income					
Exchange differences arising on consolidation of foreign operations	—	—	(616)	—	(616)
Total comprehensive expense for the year	—	—	(616)	(6,645)	(7,261)
At 1 January 2016	3,490	165,074	1,298	(109,435)	60,427
Recognition of share-based payments	—	475	—	—	475
Lapse of vested options in period	—	(843)	—	843	—
Share options repurchased (note 20)	—	(1,065)	—	964	(101)
Transactions with owners recognised directly in equity	—	(1,433)	—	1,807	374
Loss for year	—	—	—	(8,440)	(8,440)
Other comprehensive income					
Exchange differences arising on consolidation of foreign operations	—	—	1,705	—	1,705
Unrealised gain on financial assets available for sale	—	—	—	118	118
Total comprehensive expense for the year	—	—	1,705	(8,322)	(6,617)
At 31 December 2016	**3,490**	**163,641**	**3,003**	**(115,950)**	**54,184**

Company balance sheet
year ended 31 December 2016

	Note	2016 £000s	2015 £000s
Non-current assets			
Property, plant and equipment	10	**456**	551
Other intangible assets		**5**	—
Available-for-sale financial assets	13	**4,417**	—
Investment in subsidiaries	14	**25,175**	22,511
Other receivables	15	**220**	233
		30,273	23,295
Current assets			
Trade and other receivables	15	**459**	261
R&D tax credit receivable		**1,600**	1,271
Cash and cash equivalents	16	**38,459**	47,822
		40,518	49,354
Current liabilities			
Trade and other payables	17	**(5,508)**	(814)
Total assets less current liabilities		**65,283**	71,835
Net assets		**65,283**	71,835
Capital and reserves attributable to the Company's equity holders			
Share capital	19	**3,490**	3,490
Capital reserves	21	**163,457**	164,890
Accumulated losses		**(101,664)**	(96,545)
Total equity		**65,283**	71,835

The Company made a loss of £7,044k in the year ended 31 December 2016 (2015: £22,092k).

The financial statements on pages 32 to 55 were approved by the Board on 26 April 2017 and signed on its behalf.

David Ellam
Chief Financial Officer
and Company Secretary

Ali Mortazavi
Chief Executive Officer

Company number: 02992058

The accompanying accounting policies and notes form an integral part of these financial statements.

Company statement of changes in equity
year ended 31 December 2016

	Share capital £000s	Capital reserves £000s	Accumulated losses £000s	Total equity £000s
At 1 January 2015	2,605	126,013	(74,621)	53,997
Recognition of share-based payments	—	777	—	777
Lapse of vested options in the period	—	(168)	168	—
Shares issued in year, net of expenses	885	38,268	—	39,153
Transactions with owners recognised directly in equity	885	38,877	168	39,930
Loss for the year	—	—	(22,092)	(22,092)
At 1 January 2016	3,490	164,890	(96,545)	71,835
Recognition of share-based payments	—	475	—	475
Lapse of vested options in the period	—	(843)	843	—
Share options repurchased (note 20)	—	(1,065)	964	(101)
Transactions with owners recognised directly in equity	—	(1,433)	1,807	374
Loss for the year	—	—	(7,044)	(7,044)
Other comprehensive income				
Unrealised gain on financial assets available for sale	—	—	118	118
At 31 December 2016	**3,490**	**163,457**	**(101,664)**	**65,283**

Cash flow statements
year ended 31 December 2016

	Consolidated		Company	
	2016 £000s	2015 £000s	**2016 £000s**	2015 £000s
Cash flow from operating activities				
Loss before tax	**(10,362)**	(9,429)	**(8,966)**	(24,875)
Depreciation charges	**302**	180	**112**	42
Amortisation charges	**8**	2	**—**	—
Charge for the year in respect of share-based payments	**475**	777	**475**	777
Finance and other income	**(1,544)**	(175)	**(3,984)**	571
Corporation tax credits received	**1,594**	1,513	**1,594**	1,513
Impairment of investment	**—**	—	**—**	14,300
(Increase) in trade and other receivables	**(1,030)**	(228)	**(185)**	(269)
Increase/(decrease) in trade and other payables	**491**	(895)	**4,694**	(220)
Net cash outflow from operating activities	**(10,066)**	(8,255)	**(6,260)**	(8,161)
Cash flow from investing activities				
Acquisition of financial assets available for sale	**(4,299)**	—	**(4,299)**	—
Decrease in other financial assets	**—**	5,000	**—**	5,000
Increase in loan to subsidiary undertakings	**—**	—	**(243)**	(3,531)
Interest received	**161**	175	**161**	175
Purchase of property, plant and equipment	**(492)**	(843)	**(17)**	(575)
Purchase of intangible assets	**(45)**	(7)	**(5)**	—
Net cash (outflow)/inflow from investing activities	**(4,675)**	4,325	**(4,403)**	1,069
Cash flow from financing activities				
Proceeds from issue of share capital, net of issue costs of £1,105k	**—**	39,153	**—**	39,153
Share options repurchased	**(101)**	—	**(101)**	—
Net cash (outflow)/inflow from financing activities	**(101)**	39,153	**(101)**	39,153
(Decrease)/increase in cash and cash equivalents	**(14,842)**	35,223	**(10,764)**	32,061
Cash and cash equivalents at start of year	**51,907**	16,857	**47,822**	15,761
Net (decrease)/increase in the year	**(14,842)**	35,223	**(10,764)**	32,061
Effect of exchange rate fluctuations on cash held	**1,947**	(173)	**1,401**	—
Cash and cash equivalents at end of year	**39,012**	51,907	**38,459**	47,822

The accompanying accounting policies and notes form an integral part of these financial statements.

Notes to the financial statements
year ended 31 December 2016

1. General information
1.1 Group
Silence Therapeutics plc and its subsidiaries (together the "Group") are primarily involved in the discovery, delivery and development of RNA therapeutics. Silence Therapeutics plc, a Public Limited Company incorporated and domiciled in England, is the Group's ultimate parent Company. The address of Silence Therapeutic plc's registered office is 27 Eastcastle Street, London W1W 8DH and the principal place of business is 72 Hammersmith Road, London, W14 8TH.

1.2 Company income statement
The Company has taken advantage of Section 408 of the Companies Act 2006 and has not included its own income statement in these financial statements. The loss for the financial year dealt within the financial statements of the Company was as follows:

	2016 £000s	2015 £000s
	7,044	22,092

2. Principal accounting policies
2.1 Basis of preparation
The consolidated financial statements and the Company financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) and IFRS Interpretations Committee (IFRS IC) interpretations as adopted by the European Union and the Companies Act 2006 applicable to companies reporting under IFRS. The consolidated financial statements have been prepared under the historical cost convention. The accounting policies set out below have, unless otherwise stated, been prepared consistently for all periods presented in these consolidated financial statements. The financial statements are prepared in pounds sterling and presented to the nearest thousand pounds. The principal accounting policies adopted are set out below.

The following new and amended accounting standards have been issued by the IASB and are likely to affect future financial statements:

> IFRS 9 Financial Instruments was issued in its final form in July 2014 and will be implemented by the Group from 1 January 2018. The Standard will replace the majority of IAS 39 and covers the classification, measurement and de-recognition of financial assets and financial liabilities, impairment of financial assets and provides a new hedge accounting model. Available-for-sale financial assets under the existing framework will be classified under IFRS 9 in the new "fair value through other comprehensive income" category. The accounting treatment will be unchanged, except for if there is an impairment which would be reclassified to the income statement based on amortised cost calculations instead of fair value calculations.
> IFRS 15 Revenue from Contracts with Customers was issued in May 2014 and will be implemented by the Group from 1 January 2018. The Standard provides a single, principles-based approach to the recognition of revenue from all contracts with customers. It focuses on the identification of performance obligations in a contract and requires revenue to be recognised when or as those performance obligations are satisfied; and
> IFRS 16 Leases was issued in January 2016 and will be implemented by the Group from 1 January 2019. The Standard will replace IAS 17 and will require lease liabilities and "right of use" assets to be recognised on the balance sheet for almost all leases.

The directors are still assessing the impact of the adoption of the Standards and Interpretations listed above.

2.2 Basis of consolidation
The Group financial statements consolidate those of the Company and its controlled subsidiary undertakings drawn up to 31 December 2016. The Group controls an entity when the Group is expected to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The parent Company financial statements present information about the Company as a separate entity and not about its Group. Where necessary, adjustments are made to the financial statements of subsidiaries to bring accounting policies into line with those used for reporting the operations of the Group. All intra-Group transactions, balances, income and expenses are eliminated on consolidation.

2.3 Going concern
The financial statements have been prepared on a going concern basis that assumes that the Group will continue in operational existence for the foreseeable future. The directors consider that the continued adoption of the going concern basis is appropriate and the financial statements do not reflect any adjustments that would be required if they were to be prepared on any other basis.

As at 31 December 2016 the Group had cash balances of £39.0m. The Directors have reviewed the working capital requirements of the Group for the twelve months from signing these financial statements and are confident that these can be met.

The directors, having prepared cash flow forecasts, believe that existing cash resources will provide sufficient funds for the Group to continue its research and development programmes and to remain in operation for at least twelve months from the date of approval of these financial statements.

The Group's business activities, together with the factors likely to affect its future development, performance and position are set out in the strategic report on pages 4 and 5.

2.4 Research and development
Expenditure on research activities is recognised in the income statement as an expense as incurred. Further details on research and development costs can be found in note 2.11.

2.5 Revenue recognition

The Group's income (in years where there is income) consists of licence fees, milestone and option payments, grant income and fees from research and development collaborations. Income is measured at the fair value of the consideration received or receivable.

Licence fees, option and milestone payments are recognised in full on the date that they are contractually receivable in those circumstances where:

> the amounts are not time related;
> the amounts are not refundable;
> the licensee has unrestricted rights to exploit the technology within the terms set by the licence; and
> the Group has no further contractual duty to perform any future services.

Where such fees or receipts require future performance or financial commitments on behalf of the Group, the revenue is recognised pro rata to the services or commitments being performed. Funds received that have not been recognised are treated as deferred revenue and recognised in trade and other payables.

Revenues from work or other research and testing carried out for third parties are recognised when the work to which they relate has been performed.

All time related receipts in respect of annual licence fees or similar technology access fees are recognised as revenue on a straight-line basis over the period of the underlying contract.

2.6 Foreign currency translation

The Group's consolidated financial statements are presented in sterling (£), which is also the functional currency of the parent Company. The individual financial statements of each Group entity are prepared in the currency of the primary economic environment in which the entity operates (its functional currency).

In preparing the financial statements of the individual entities, transactions in currencies other than the entity's functional currency (foreign currencies) are recorded at the rates of exchange prevailing on the dates of the transactions. At each balance sheet date, monetary items denominated in foreign currencies are retranslated at the rates prevailing on the balance sheet date.

Exchange differences arising on the settlement of monetary items, and on the retranslation of monetary items, are included in the income statement for the year. When a gain or loss on a non-monetary item is recognised directly in equity, any exchange component of that gain or loss is also recognised directly in equity. When a gain or loss on a non-monetary item is recognised in the income statement, any exchange component of that gain or loss is also recognised in the income statement.

For the purpose of presenting consolidated financial statements, the assets and liabilities of the Group's foreign operations (including comparatives) are expressed in sterling using exchange rates prevailing on the balance sheet date. Income and expense items (including comparatives) are translated at the average exchange rates for the period. Exchange differences arising, if any, are recognised in equity. Cumulative translation differences are recognised in profit or loss in the period in which the foreign operation is disposed of.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate.

2.7 Defined contribution pension funds

In 2016 the Group had a defined contribution pension scheme in which it paid £68k (2015: £37k) on behalf of UK employees. The contributions are recognised as an expense when they fall due.

2.8 Business combinations

There were no business combinations as defined by IFRS 3 (revised) during 2015 or 2016.

Business combinations which occurred in 2010 were accounted for by applying the acquisition method described in IFRS 3 (revised) as at the acquisition date, which is the date on which control is transferred to the Group. In arriving at the cost of acquisition, the fair value of the shares issued by the Company is taken to be the bid price of those shares at the date of the issue. Where this figure exceeds the nominal value of the shares, the excess amount is treated as an addition to the merger reserve.

Acquisitions before 1 January 2010

For acquisitions which occurred before 1 January 2010, goodwill represents the excess of the cost of the acquisition over the Group's interest in the recognised amount (generally fair value) of the identifiable assets, liabilities and contingent liabilities of the acquiree.

Transaction costs, other than those associated with the issue of debt or equity securities, that the Group incurred in connection with business combinations were capitalised as part of the cost of the acquisition.

Notes to the financial statements continued

2. Principal accounting policies continued

2.9 Property, plant and equipment

The Group holds no property assets.

All plant and equipment is stated in the financial statements at its cost of acquisition less a provision for depreciation.

Depreciation is charged to write off the cost less estimated residual values of plant and equipment on a straight-line basis over their estimated useful lives. All plant and equipment is estimated to have useful economic lives of between three and ten years. Estimated useful economic lives and residual values are reviewed each year and amended if necessary.

2.10 Goodwill and other intangible assets

Goodwill

Goodwill is stated at cost less any accumulated impairment losses. Goodwill is allocated to cash-generating units and is not amortised but is tested annually for impairment.

Goodwill arising on the acquisition of a subsidiary represents the excess of the cost of acquisition over the Group's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities of the subsidiary at the date of acquisition. Goodwill is initially recognised as an asset at cost and is subsequently measured at cost less any accumulated impairment losses. On disposal of a subsidiary, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

Other intangible assets

Other intangible assets that are acquired by the Group are stated at cost less accumulated amortisation and less accumulated impairment losses.

Amortisation

Amortisation is charged to the income statement on a straight-line basis over the estimated useful lives of intangible assets unless such lives are indefinite. Intangible assets with an indefinite useful life and goodwill are systematically tested for impairment at each balance sheet date. Other intangible assets are amortised from the date they are available for use. The estimated useful lives are as follows:

Acquired patents and trademarks	10-15 years

2.11 Other intangible assets and research and development activities

Intellectual property rights

Other intangible assets include both acquired and internally developed intellectual property used in research and operations. These assets are stated at cost less amortisation.

Acquired intellectual property rights are capitalised on the basis of the costs incurred to acquire the specific rights.

Amortisation is applied to write off the cost of the intangible assets on a straight-line basis over their estimated useful life. The principal rates used are 6.7% and 10% per annum. Amortisation is included within research and development costs.

Capitalisation of research and development costs

Costs associated with research activities are treated as an expense in the period in which they are incurred.

Costs that are directly attributable to the development phase of an internal project will only be recognised as intangible assets provided they meet the following requirements:

- an asset is created that can be separately identified;
- the technical feasibility exists to complete the intangible asset so that it will be available for sale or use and the Group has the intention and ability so to do;
- it is probable that the asset created will generate future economic benefits either through internal use or sale;
- sufficient technical, financial and other resources are available for completion of the asset; and
- the expenditure attributable to the intangible asset during its development can be reliably measured.

Careful judgement by the Group's management is applied when deciding whether recognition requirements for development costs have been met. This is necessary as the economic success of any product development is uncertain and may be subject to future technical problems at the time of recognition. Judgements are based on the information available at each balance sheet date.

To date, no development costs have been capitalised in respect of the internal projects on the grounds that the costs to date are either for the research phase of the projects or, if relating to the development phase, then the work so far does not meet the recognition criteria set out above.

2.12 Impairment testing of goodwill, other intangible assets and property, plant and equipment
At each balance sheet date, the Group assesses any impairment event and whether there is any indication that the carrying value of any asset may be impaired. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Goodwill is subject to annual impairment review.

For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units). Goodwill is allocated to those cash-generating units that are expected to benefit from synergies of the related business combination and represent the lowest level within the Group at which management controls the related cash flows.

An impairment loss is recognised for the amount by which the asset's or cash-generating unit's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of fair value, reflecting market conditions less costs to sell, and value-in-use. Impairment losses recognised for cash-generating units to which goodwill has been allocated are credited initially to the carrying amount of goodwill. Any remaining impairment loss is charged pro rata to the other assets in the cash-generating unit.

2.13 Investments in subsidiaries
Investments in subsidiaries comprise shares in the subsidiaries and quasi-equity loans from the Company. Investments in shares of the subsidiaries are stated at cost less provisions for impairment in line with IAS 27 (Separate Financial Statements).

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

The Group classified its financial assets in the following categories: Loans and receivables, and available-for-sale. Currently other categories of financial asset are not used. The classification depends on the purpose for which the financial assets were acquired. Management determines the classification of its financial assets at initial recognition. The designation of financial assets is re-evaluated at every reporting date at which a choice of classification or accounting treatment is available.

De-recognition of financial instruments occurs when the rights to receive cash flows from investments expire or are transferred and substantially all of the risks and rewards of ownership have been transferred. An assessment for impairment is undertaken at least at each balance sheet date whether or not there is objective evidence that a financial asset or a Group of financial assets is impaired.

Loans and receivables
Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They arise when the Group or Company provides money directly to a debtor with no intention of trading the receivables. Loans receivable are measured at initial recognition at fair value plus, if appropriate, directly attributable transaction costs and are subsequently measured at amortised cost using the effective interest method, less provision for impairment. Any change in their value is recognised in the income statement.

Available-for-sale financial assets
Available-for-sale financial assets are non-derivatives and are included in non-current assets unless management intends to dispose of the assets within 12 months after the balance sheet date. Purchases and sales of investments are recognised on trade-date – the date on which the Group commits to purchase or sell the asset. Investments are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all risks and rewards of ownership. Available-for-sale financial assets are initially recognised at fair value plus transaction costs, and are subsequently carried at fair value. Unrealised gains and losses arising from changes in the fair value of investments classified as available-for-sale are recognised within equity. When these investments are sold or impaired, the accumulated fair value adjustments within equity are included in the income statement. The fair values of quoted financial assets are based on current bid prices.

The Group assesses at each balance sheet date whether there is objective evidence that a financial asset or a Group of financial assets is impaired. In the case of equity investments classified as available for sale, a significant or prolonged decline in the fair value of the investment below its cost is considered in determining whether the investments are impaired. If any such evidence exists for available-for-sale financial assets, the cumulative loss – measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognised in profit or loss – is removed from the fair value reserve within equity and recognised in the income statement. Impairment losses recognised in the income statement on equity investments are not reversed through the income statement, until the equity investments are disposed of.

Cash and cash equivalents
Cash and cash equivalents comprise cash on hand and demand deposits that are readily convertible to a known amount of cash and are subject to an insignificant risk of change in value.

Notes to the financial statements continued

2. Principal accounting policies continued

2.14 Financial instruments continued

Financial liabilities and equity

Financial liabilities and equity instruments issued by the Group are classified according to the substance of the contractual arrangements entered into and the definitions of a financial liability and an equity instrument. A financial liability is a contractual obligation to either deliver cash or another financial asset to another entity or to exchange a financial asset or financial liability with another entity, including obligations which may be settled by the Group using its equity instruments. An equity instrument is any contract that evidences a residual interest in the assets of the Group after deducting all of its liabilities. The accounting policies adopted for specific financial liabilities and equity instruments are set out below.

Financial liabilities

At initial recognition, financial liabilities are measured at their fair value minus, if appropriate, any transaction costs that are directly attributable to the issue of the financial liability. After initial recognition, all financial liabilities are measured at amortised cost using the effective interest method.

Equity instruments

Equity instruments issued by the Group are recorded at the proceeds received net of direct issue costs.

2.15 Operating leases

Leases where substantially all the risks and rewards of ownership remain with the lessor are accounted for as operating leases and are accounted for on a straight-line basis over the term of the lease and charged to the income statement.

2.16 Share-based payments

Historically the Group has issued equity-settled share-based payments to certain employees and advisers (see note 20). Equity-settled share-based payments are measured at fair value (excluding the effect of non market-based vesting conditions) at the date of grant. The fair value so determined is expensed on a straight-line basis over the vesting period, based on the Group's estimate of the number of shares that will eventually vest and adjusted for the effect of non market-based vesting conditions. The value of the change is adjusted to reflect expected and actual levels of award vesting, except where failure to vest is as a result of not meeting a market condition. Cancellations of equity instruments are treated as an acceleration of the vesting period and any outstanding charge is recognised in full immediately. Fair value is measured using a binomial pricing model or Monte Carlo model. The key assumptions used in the model have been adjusted, based on management's best estimate, for the effects of non-transferability, exercise restrictions and behavioural considerations. Any payment made to a counterparty on the cancellation or settlement of a grant of equity instruments (even if this occurs after the vesting date) should be accounted for as a repurchase of an equity interest (that is, as a deduction from equity). But, if the payment exceeds the fair value of the equity instruments repurchased (measured at the repurchase date), any such excess should be recognised as an expense.

2.17 Equity

Share capital is determined using the nominal value of shares that have been issued.

The share premium account includes any premiums received on the initial issuing of the share capital. Any transaction costs associated with the issuing of shares are deducted from the share premium account, net of any related income tax benefits.

The merger reserve represents the difference between the nominal value and the market value at the date of issue of shares issued in connection with the acquisition by the Group of an interest in over 90% of the share capital of another company.

Equity-settled share-based payments are credited to a share-based payment reserve as a component of equity until related options or warrants are exercised.

Foreign currency translation differences are included in the translation reserve.

Profit and loss account (deficit) includes all current and prior period results as disclosed in the income statement.

2.18 Taxation

Current tax payable is based on taxable profit for the year. Taxable profit differs from profit as reported in the income statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. Current tax liabilities are calculated using tax rates that have been enacted or substantively enacted by the balance sheet date.

Tax receivable arises from the UK legislation regarding the treatment of certain qualifying research and development costs, allowing for the surrender of tax losses attributable to such costs in return for a tax rebate. Research and development tax credits are recognised when the receipt is probable.

Deferred tax is recognised on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised.

Such assets and liabilities are not recognised if the temporary difference arises from initial recognition of goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

2.18 Taxation continued
Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset realised. Deferred tax is charged or credited to the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also dealt with in equity.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and liabilities on a net basis.

2.19 Critical accounting judgements and key sources of estimation uncertainty
In the process of applying the entity's accounting policies, Management makes estimates and assumptions that have an effect on the amounts recognised in the financial statements. Although these estimates are based on management's best knowledge of current events and actions, actual results may ultimately differ from those estimates.

The key assumptions concerning the future, and other key sources of estimation uncertainty at the balance sheet date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are those relating to:

> the treatment of development expenditure;
> the carrying value of the Company's investment in its subsidiaries; and
> the future recoverability of goodwill.

The Group expends considerable sums on its development projects, with its total research and development costs for 2016 amounting to £8.7m (2015: £7.1m). The Board has considered the criteria under IAS 38 to determine whether costs can be capitalised, concluding that it would not be able to prove reliably that such costs could be recovered due to the risk factors involved. Therefore, all such costs have been treated as expenses as they were incurred. Any decision to treat part of those costs as capital items could have a significant impact on the Group's results and balance sheet.

The Group's main activities are carried out by subsidiary companies which are financed by ongoing investment by the parent Company. These investments are carried in the books of the parent Company at cost less provisions for impairment. The carrying value at 31 December 2016 is £25.2m (2015: £22.5m). The key assumptions concerning the carrying value of the investments in, and loans to, subsidiaries relate to the continuing progress of the research and development programmes. As noted below, there are a number of risks and uncertainties around those assumptions and the crystallisation of any of those risks could have a significant impact on the assessment of the carrying value of the investment shown in the financial statements of the parent Company.

Goodwill is carried in the financial statements at a value of £7.7m (2015: £6.7m). The key assumptions concerning the carrying value, or otherwise, for both the goodwill and other intangible assets relate to the continuing progress of the Group's research and development programmes, which are subject to risks common to all biotechnology businesses. These risks include the impact of competition in the specific areas of development, the potential failure of the projects in development or clinical trials and the possible inability to progress projects due to regulatory, manufacturing or intellectual property issues or the lack of available funds or other resources. Furthermore, the crystallisation of any of these risks could have a significant impact on the assessment of the value of both goodwill and other intangible assets.

2.20 Segment reporting
Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Group's Chief Executive Officer, Ali Mortazavi. The Group has a single reportable segment (see note 4).

Notes to the financial statements continued

3. Revenue

The revenue in 2016 of £770k (2015: nil) was from licence fees generated entirely by the European operations.

4. Segment reporting

In 2016, the Group operated in the specific technology field of RNA therapeutics.

Non-current assets	UK £000s	Germany £000s
As at 31 December 2016	**5,103**	**8,669**
As at 31 December 2015	784	7,211

Revenue analysis	**2016 £000s**	2015 £000s
Revenue from licensing	**770**	—

The country of registration of the single fee-paying party is Israel. The revenue was billed and received in US Dollars.

Business segments

For the 12 months ended 31 December 2016, the Group had one business segment, the development of RNAi based medicines. Prior to the 12 months ended 31 December 2016, the Group had one business segment – "RNAi therapeutics" – as well as "Group unallocated" shown separately.

The Group has identified the Chief Executive Officer as the Chief Operating Decision Maker ("CODM"). Previously, certain Group overheads were presented as a separate "Group unallocated" category. The CODM and other Directors believe that presentation is not relevant in light of how the business is run and measured. This is in line with reporting to the Executive Committee and senior management. The information used internally by the CODM is the same as that disclosed in the Financial Statements.

5. Operating loss

This is stated after charging:

	2016 £000s	2015 £000s
Depreciation of property, plant and equipment	**302**	180
Amortisation of intangibles and abandonment of patents	**8**	2
Share-based payments charge	**475**	777
Fees payable to the Company's auditor for the audit of the parent Company and the consolidation:		
> audit of these financial statements	**88**	85
> other assurance services	**5**	5
> tax compliance services	**37**	55
Operating lease payments on offices	**454**	602

6. Directors and staff costs

Staff costs, including Directors' remuneration, during the year were as follows:

	2016 £000s	2015 £000s
Wages and salaries	**3,937**	2,993
Termination benefits	**382**	166
Social security costs	**589**	496
Charge in respect of share-based payments	**475**	777
Pension costs	**68**	37
	5,451	4,469

Directors' remuneration

	Base salary 2016 £000s	Benefits in kind 2016 £000s	Bonus 2016 £000s	Pension 2016 £000s	Total 2016 £000s	Base salary 2015 £000s	Benefits in kind 2015 £000s	Bonus 2015 £000s	Pension 2015 £000s	Total 2015 £000s
Executive Directors										
Ali Mortazavi[1]	200	10	162	9	381	180	9	108	—	297
David Ellam[2]	81	1	64	4	150	—	—	—	—	—
Timothy Freeborn[3,10]	67	4	19	3	93	140	3	40	—	183
Michael Khan[4,10]	63	—	—	3	66	186	—	—	—	186
Lars Karlsson[5,10]	68	18	—	15	101	127	—	—	37	164
Annie Cheng[6]	—	—	—	—	—	12	—	—	—	12
Non-Executive Directors										
Stephen Parker	100	3	—	3	106	53	—	—	—	53
Alistair Gray	40	—	—	—	40	5	—	—	—	5
Andy Richards[7]	13	—	—	—	13	—	—	—	—	—
Alastair Riddell	—	—	—	—	—	119	—	—	—	119
Simon Sturge[8]	2	—	—	—	2	36	—	—	—	36
Stuart Collinson[9]	9	—	—	—	9	—	—	—	—	—
Total	643	36	245	37	961	858	12	148	37	1,055

1 Bonus for 2016 includes an amount of £42k in respect of 2015 that was retrospectively awarded in 2016.
2 Appointed as a director (Chief Financial Officer) on 18 July 2016, bonus includes a £25k sign-on bonus.
3 Resigned as a director on 17 June 2016, but continued as an employee until 31 December 2016. Table only includes remuneration whilst a Director.
4 Resigned as a director on 17 June 2016, when he became a consultant. Table only includes remuneration whilst a Director. Consultant fee of £126,000 annually is payable to Pharmalogos limited.
5 Resigned as a director on 5 April 2016 and left the company.
6 Resigned as a director on 2 September 2014, but continued as an employee until 31 January 2015.
7 Appointed as a director on 14 September 2016.
8 Resigned as a director on 18 January 2016.
9 Resigned as a director on 18 January 2016.
10 Details of option arrangements on resignation are in the Remuneration Committee report on page 25.

The monthly average number of employees, including Executive Directors, during the year was 59 (2015: 56). Of these, the monthly average number of employees working in research and development and administration was 44 (2015: 46) and 15 (2015: 10), respectively.

Apart from the Directors, the monthly average number of employees of the parent Company was 9 (2015: 11); six working in administration (2015: five) and three in research and development (2015: six).

	Share options charge 2016 £000s	Share options charge 2015 £000s
Ali Mortazavi	196	—
David Ellam	17	—
Timothy Freeborn	18	73
Michael Khan	18	43
Lars Karlsson	—	88
Total	249	204

The directors of the Group are considered by the Board to be the key management of the Group.

7. Finance and other income

Finance and other income comprises:

	2016 £000s	2015 £000s
Bank interest receivable	161	175
Other income	1,383	165
Finance and other income	1,544	340

Other income includes exchange gains on foreign currency denominated bank accounts of £1,947k (2015: £173k loss).

Notes to the financial statements continued

8. Taxation

The deferred tax charge in 2016 was nil (2015: nil). Reconciliation of current tax credit at standard rate of UK corporation tax to the current tax credit:

	2016 £000s	2015 £000s
Loss before tax	**(10,362)**	(9,429)
Tax credit at the standard rate of UK corporation tax of 20% (2015: 20.25%)	**2,072**	1,909
Effect of overseas tax rate	**(79)**	82
Impact of unrelieved tax losses not recognised	**(1,993)**	(1,991)
Research and development tax credit in respect of prior year	**329**	1,513
Research and development tax credit in respect of current year	**1,593**	1,271
	1,922	2,784

Estimated tax losses of £79.3m (2015: £73.5m) are available for relief against future profits.

The deferred tax asset not recognised in these financial statements on the estimated losses and the treatment of the equity-settled share-based payments, net of any other temporary timing differences is detailed in note 18. During the year, the parent Company received a research and development tax credit of £1.6m (2015: £1.5m). We have accrued £1.6m recognising a current tax asset in respect of 2016 research and development tax credits.

The corporation tax main rate for all of 2016 was 20%. The rate from April 2017 will be 19%, dropping to 18% from April 2020. Minimal impact is expected from these changes given the Group is loss-making.

9. Loss per share

The calculation of the loss per share is based on the loss for the financial year after taxation of £8.4m (2015: loss of £6.6m) and on the weighted average of 69,801,624 (2015: 64,023,900) ordinary shares in issue during the year.

The options outstanding at 31 December 2016 and 31 December 2015 are considered to be non-dilutive as the Group is loss making.

10. Property, plant and equipment

Equipment and furniture	Group £000s	Company £000s
Cost		
At 1 January 2015	3,255	24
Additions	843	575
Disposals	(25)	—
Translation adjustment	(187)	—
At 31 December 2015	3,886	599
Additions	492	17
Disposals	(302)	—
Translation adjustment	715	—
At 31 December 2016	**4,791**	**616**
Accumulated depreciation		
At 1 January 2015	2,797	6
Charge for the year	180	42
Eliminated on disposal	(25)	—
Translation adjustment	(159)	—
At 31 December 2015	2,793	48
Charge for the year	302	112
Eliminated on disposal	(297)	—
Translation adjustment	618	—
At 31 December 2016	**3,416**	**160**
Net book value		
As at 31 December 2015	1,093	551
As at 31 December 2016	**1,375**	**456**

11. Goodwill

	2016 £000s	2015 £000s
Balance at start of year	**6,663**	7,077
Translation adjustment	**1,046**	(414)
Balance at end of year	**7,709**	6,663

The carrying amount of goodwill is attributable to the acquisition of Silence Therapeutics GmbH in 2005 and forms part of the Group's RNA therapeutics cash-generating unit (CGU). In accordance with IAS 36: Impairment of Assets, the carrying value of goodwill has been assessed by comparing its carrying value to its recoverable amount. The recoverable amount is based on fair value less costs to sell. No goodwill impairment was identified. Fair value less costs to sell of the RNA therapeutics CGU has been determined based on the market capitalisation of the Group as a whole, which at the year-end was £70.5m. This is the only CGU. The directors consider that the use of a fair value less costs to sell model based on market prices is appropriate, given the simple nature of the business and the fact that all the enterprise value in the business resides within the RNA therapeutics CGU. Due to the headroom which exists between the recoverable amount and the carrying value there is currently no reasonable possible change in the determined recoverable amount which would cause the CGU's carrying value to exceed its recoverable amount.

12. Other intangible assets

Group	Licences £000s	Internally generated patents £000s	Total £000s
Cost			
At 1 January 2015	2,159	938	3,097
Additions	6	1	7
Translation adjustment	(126)	(55)	(181)
At 31 December 2015	2,039	884	2,923
Additions	45	—	45
Disposals	(86)	—	(86)
Translation adjustment	262	—	262
At 31 December 2016	**2,260**	**884**	**3,144**
Accumulated amortisation			
At 1 January 2015	2,157	938	3,095
Charge for the year	2	—	2
Translation adjustment	(126)	(54)	(180)
At 31 December 2015	2,033	884	2,917
Charge for the year	8	—	8
Eliminated on disposal	(86)	—	(86)
Translation adjustment	260	—	260
At 31 December 2016	**2,215**	**884**	**3,099**
Net book value			
As at 31 December 2015	6	—	6
As at 31 December 2016	**45**	**—**	**45**

The intangible assets included above have finite useful lives estimated to be of 10-15 years from the date of acquisition, over which period they are amortised or written down if they are considered to be impaired. Internally generated patent costs are only recorded where they are expected to lead directly to near term revenues. These costs are amortised on a straight-line basis over 10-15 years, commencing from the date that the asset is available for use. The charge for amortisation is included in the research and development costs in the income statement.

13. Available-for-sale financial assets

The available-for-sale financial assets represent the cost of a purchase on the open market of a minority stake in Arrowhead Pharmaceuticals Inc, a company incorporated in the USA and listed on NASDAQ. This stake represents 4.7% of the common share capital of Arrowhead Pharmaceuticals Inc, and was purchased at a cost of £4.3m. £0.1m was recognised in the Statement of Other Comprehensive Income as an unrealised gain on financial assets available for sale in the year ended 31 December 2016.

In January 2017 additional shares were purchased in Arrowhead (see note 26). This was a non-adjusting subsequent event.

14. Investments in subsidiaries

Company	**2016 £000s**	2015 £000s
Investment in subsidiary undertakings	**25,175**	22,511

Notes to the financial statements continued

14. Investments in subsidiaries continued

The investment in subsidiary undertakings is made up as follows:

	Investment at cost £000s	Quasi-equity loan £000s	Impairment provision £000s	Net total £000s
Shares and loans in subsidiary undertakings				
At 31 December 2014	47,632	33,141	(46,747)	34,026
Movement in the year	—	2,785	(14,300)	(11,515)
At 31 December 2015	47,632	35,926	(61,047)	22,511
Movement in the year	—	2,664	—	2,664
At 31 December 2016	**47,632**	**38,590**	**(61,047)**	**25,175**

The movement in the year includes a foreign exchange gain of £2.0m (2015: £0.7m loss).

At 31 December 2016, a non-interest bearing unsecured loan of £22.4m (2015: £22.4m) was outstanding from Silence Therapeutics plc to Silence Therapeutics (London) Ltd (formerly Stanford Rook Ltd). This receivable has been fully provided for.

At 31 December 2015, an impairment of £14.3m was made against the holding in Silence Therapeutics GmbH.

Subsidiary companies

The principal activity of all subsidiaries is the research and development of pharmaceutical products. All subsidiary companies are consolidated in the Group's financial statements:

Name	Place of incorporation and operation	Principal technology area	Proportion of ownership interest
Silence Therapeutics GmbH	Germany	RNA therapeutics	100%
Intradigm Corporation	USA	RNA therapeutics	100%
Silence Therapeutics (London) Ltd (formerly Stanford Rook Ltd)	England	Immunotherapy	100%
Innopeg Ltd	England	Not active	100%

Name	Exempt from audit	Exempt from filing financial statements
Silence Therapeutics GmbH	Yes	No
Intradigm Corporation	Yes	Yes
Silence Therapeutics (London) Ltd (formerly Stanford Rook Ltd)	Yes	No
Innopeg Ltd	Yes	No

Silence Therapeutics plc has made an impairment provision against the investment and loans to Silence Therapeutics (London) Ltd, Innopeg Ltd and Intradigm Corporation to the extent that they are deemed to be not recoverable. An impairment provision of £14.3m was recorded against the investment in Silence Therapeutics GmbH in 2015 as the Directors reassessed the near-term future cash flows between Silence Therapeutics GmbH and the Company, and using a probability adjusted value-in-use basis and a discount rate of 10%, determined that an impairment arose.

15. Trade and other receivables

	2016		2015	
	Group £000s	**Company £000s**	Group £000s	Company £000s
Trade receivables	**810**	**—**	—	—
Other receivables	**301**	**144**	179	110
Prepayments	**286**	**315**	191	151
Trade and other receivables - current	**1,397**	**459**	370	261
Other receivables (non-current)	**236**	**220**	233	233
Total trade and other receivables	**1,633**	**679**	603	494

The Directors consider that the carrying amount of trade and other receivables approximates to their fair value. Trade and other current receivables were all payable within 90 days. Fair values have been calculated by discounting cash flows at prevailing interest rates. Other current receivables primarily relate to VAT receivable.

No interest is charged on outstanding receivables. There were no material balances overdue but not impaired.

16. Cash and cash equivalents

Cash at bank comprises balances held by the Group in current and short-term bank deposits with a maturity of three months or less. The carrying amount of these assets approximates to their fair value.

	2016		2015	
	Group £000s	**Company £000s**	Group £000s	Company £000s
Cash and cash equivalents	**39,012**	**38,459**	51,907	47,822

17. Trade and other payables

	2016		2015	
	Group £000s	**Company £000s**	Group £000s	Company £000s
Trade payables	**528**	**318**	207	81
Amount payable to subsidiary undertaking	**—**	**4,478**	—	—
Social security and other taxes	**73**	**70**	80	70
Accruals and other payables	**1,009**	**642**	831	663
Total trade and other payables	**1,610**	**5,508**	1,118	814

Trade payables principally comprise amounts outstanding for trade purchases and continuing operating costs. The amount payable by the Company to a subsidiary undertaking is repayable in the next 12 months and does not incur interest. Accruals and other payables primarily represent accrued expenses where an invoice has not been received yet. The directors consider that the carrying amount of trade and other payables approximates to their fair value.

18. Deferred tax

The following are the major deferred tax liabilities and assets recognised by the Group:

	2016 £000s	2015 £000s
Deferred tax liability:		
> in respect of intangible assets	**2**	2
Less: offset of deferred tax asset below	**(2)**	(2)
Liability	**—**	—
Deferred tax asset:		
> in respect of available tax losses	**12,134**	13,912
> in respect of share-based payments	**656**	849
Less: offset against deferred tax liability	**(2)**	(2)
	12,788	14,759
> provision against asset	**(12,788)**	(14,759)
Asset	**—**	—

Due to the uncertainty of future profits, a deferred tax asset was not recognised at 31 December 2016 (2015: nil).

19. Share capital

	2016 £000s	2015 £000s
Allotted, called up and fully paid 69,801,624 (2015: 69,801,624) ordinary shares par value 5p	**3,490**	3,490

The Group has only one class of share. All ordinary shares have equal voting rights and rank pari passu for the distribution of dividends.

Details of the shares issued by the Company during the current and previous year are as follows:

	Number
Number of shares in issue at 1 January 2015	52,098,109
Shares issued during the year:	
> issue of shares (equity placing) at 240p	16,666,667
Options exercised at 25p	1,036,848
Total issued in year	17,703,515
Number of shares in issue at 31 December 2015	69,801,624
Shares issued during the year	—
Number of shares in issue at 31 December 2016	**69,801,624**

Notes to the financial statements continued

19. Share capital continued

The Group has also granted options to certain directors and employees under an Enterprise Management Incentive Scheme and by individual contract.

At 31 December 2016, there were options outstanding over 5,284,375 (2015: 3,755,015) unissued ordinary shares. Details of the options outstanding are as follows:

Exercisable from	Exercisable until	Number	Exercise price
Any time	14/12/2017	600	£33.88
Any time	14/12/2017	200	£54.50
Any time	07/05/2018	399	£20.75
Any time	25/09/2018	4,300	£14.75
Any time	05/12/2018	13,170	£10.00
Any time	05/12/2018	200	£54.50
Any time	31/12/2017	190,000	£0.25
Any time	31/07/2024	1,728,078	£0.25
Any time	31/12/2024	80,000	£1.25
Any time	26/06/2026	160,000	£1.25
Any time	01/07/2026	23,103	£1.85
Any time	15/07/2026	19,919	£2.17
Any time	12/08/2026	36,014	£2.03
Any time	01/10/2026	10,182	£2.75
Any time	04/11/2026	31,250	£2.40
31 December 2016	17/06/2026	100,000	£1.17
15 June 2017	15/06/2027	23,809	£2.10
20 June 2017	01/07/2029	11,596	£2.20
31 August 2017	01/09/2029	17,153	£2.10
15 November 2017	15/11/2029	11,752	£2.01
31 December 2017	01/01/2030	70,029	£2.06
5 July 2018	06/07/2030	19,358	£2.93
6 July 2018	06/07/2026	170,000	£1.00
18 October 2018	19/10/2028	16,667	£2.10
16 November 2018	16/11/2028	12,017	£1.76
1 January 2019	01/01/2026	72,289	£1.66
5 January 2019	05/01/2026	21,472	£1.63
9 January 2019	09/01/2019	21,986	£1.06
4 April 2019	04/04/2026	13,672	£1.28
15 April 2019	15/04/2026	2,000,000	£1.17
23 May 2019	23/05/2026	13,839	£1.12
2 July 2019	02/07/2026	16,968	£1.04
18 July 2019	18/07/2026	200,000	£1.10
1 August 2019	01/08/2026	29,426	£1.08
14 September 2019	14/09/2026	144,927	£1.15
Total options outstanding		**5,284,375**	

The market price of Company shares at the year-end was 101.0p (2015: 163.0p). During the year the minimum and maximum prices were 101.0p and 163.5p respectively (2015: 160.0p and 335.0p).

20. Equity-settled share-based payments

The Company has a share option scheme open to all employees of the Group. Options are exercisable at a price equal to the market price of the Company's shares on the date of grant (certain option have been granted in the past at lower prices). Under the scheme, the options vest at dates set by the Company at the time the option is granted. The options lapse after one year following the employee leaving the Group.

	2016		2015	
	Number	**Weighted average exercise price pence**	Number	Weighted average exercise price pence
Options				
Outstanding at the beginning of the year	**3,755,015**	**96.26**	4,711,703	104.99
Granted during the year	**2,904,579**	**116.76**	293,984	214.03
Lapsed during the year	**(586,083)**	**367.75**	(213,824)	286.50
Repurchased during the year	**(789,136)**	**125.00**	—	—
Exercised during the year	**—**	**—**	(1,036,848)	25.00
Outstanding at the year end	**5,284,375**	**93.73**	3,755,015	96.26
Exercisable at the year end	**2,397,415**	**58.57**	2,073,371	96.26

The options outstanding at the year-end have a weighted average remaining contractual life of 8.8 years (2015: 9.6 years). Certain employees were offered the opportunity to sell back options granted in 2013 back to the Group at a price below the fair value at the time of the repurchases.

The Group granted 2,904,579 options during the year (2015: 293,984). The fair value of options granted were calculated using a binomial model and inputs into the model were as follows:

Inputs and assumptions for options granted in the year	**2016**	2015
Weighted average fair value at grant (pence)	**46.6**	174.8
Weighted average share price (pence)	**117.0**	214.0
Expected volatility	**60%-66%**	91%-95%
Risk-free rate	**0.70% 2.01%**	1.56%-1.99%
Hurdle price (pence)	**see below[1]**	400.0
Expected dividend yield	**nil**	nil

The Group recognised total charges of £475k (2015: £777k) related to equity-settled share-based payment transactions during the year.

1 All options issued during 2016 were without a hurdle price except for 200,000 options at a hurdle price of 117.0p, 600,000 options at a hurdle price of 176.0p, a further 600,000 options at 234.0p and another 600,000 options at 293.0p.

Notes to the financial statements continued

21. Capital reserves

Group	Share premium account £000s	Merger reserve £000s	Share-based payment reserve £000s	Capital redemption reserve £000s	Total £000s
At 1 January 2015	94,649	22,248	4,106	5,194	126,197
On shares issued in the year:	39,167	—	—	—	39,167
> less cost of shares issued	(1,106)	—	—	—	(1,106)
On options in issue during the year	—	—	777	—	777
On vested options lapsed during the year	—	—	(168)	—	(168)
On options exercised during the year	207	—	—	—	207
Movement in the year	38,268	—	609	—	38,877
At 31 December 2015	132,917	22,248	4,715	5,194	165,074
On options in issue during the year	—	—	475	—	475
On vested options lapsed during the year	—	—	(843)	—	(843)
On options repurchased during the year	—	—	(1,065)	—	(1,065)
Movement in the year	—	—	(1,433)	—	(1,433)
At 31 December 2016	**132,917**	**22,248**	**3,282**	**5,194**	**163,641**

Company	Share premium account £000s	Merger reserve £000s	Share-based payment reserve £000s	Capital redemption reserve £000s	Total £000s
At 1 January 2015	94,649	22,064	4,106	5,194	126,013
On shares issued in the year:	39,167	—	—	—	39,167
> less cost of shares issued	(1,106)	—	—	—	(1,106)
On options in issue during the year	—	—	777	—	777
On vested options lapsed during the year	—	—	(168)	—	(168)
On options exercised during the year	207	—	—	—	207
Movement in the year	38,268	—	609	—	38,877
At 31 December 2015	132,917	22,064	4,715	5,194	164,890
On options in issue during the year	—	—	475	—	475
On vested options lapsed during the year	—	—	(843)	—	(843)
On options repurchased during the year	—	—	(1,065)	—	(1,065)
Movement in the year	—	—	(1,433)	—	(1,433)
At 31 December 2016	**132,917**	**22,064**	**3,282**	**5,194**	**163,457**

The capital redemption reserve was created in 2012 following the reduction of nominal share capital to 0.1p per share. It is required under Section 733 of the Companies Act 2006, held to maintain the capital of the Company when shares are bought back and subsequently cancelled without court approval.

Due to the size of the deficit on the profit and loss account, the Company has no distributable reserves.

The share premium account reflects the premium to nominal value paid on issuing shares less costs related to the issue. The merger reserve was created on issuance of shares relating to the acquisition of Silence Therapeutics GmbH.

The share-based payments reserve reflects the cost to issue share-based compensation, primarily employee share options.

22. Capital commitments and contingent liabilities

There were no capital commitments or contingent liabilities at 31 December 2016 (2015: nil).

23. Commitments under operating leases

At 31 December 2016, the Group and Company had a gross commitment on its office rental and service charge at 72 Hammersmith Road, London equal to £0.2m (2015: £0.1m) in the next year.

£0.2m (2015: £1.0m) is payable between one to five years. No amounts are payable after more than five years.

24. Financial instruments and risk management

The Group's financial instruments comprise primarily cash and other financial assets and various items such as trade receivables and trade payables which arise directly from its operations. The main purpose of these financial instruments is to provide working capital for the Group's operations. The Group assesses counterparty risk on a regular basis. Board approval is required for adoption of any new financial instrument or counterparty. The primary focus of the treasury function is preservation of capital.

The Directors consider that the carrying amount of these financial instruments approximates to their fair value.

Financial assets by category

The categories of financial assets (as defined by IAS 39: Financial Instruments: Recognition and Measurement) included in the balance sheet and the heading in which they are included are as follows:

	2016		2015	
Loans and receivables	**Group £000s**	**Company £000s**	Group £000s	Company £000s
Trade and other receivables	**1,347**	**364**	412	343
Cash and cash equivalents	**39,012**	**38,459**	51,907	47,822
Loans to subsidiary undertakings – non-current	**—**	**16,123**	—	13,552
Total	**40,359**	**54,946**	52,319	61,717

All amounts are current except for £236k of trade and other receivables which are due after one year (2015 due after one year: £233k) and loans to subsidiary undertakings which are non-current in their entirety.

	2016		2015	
Available-for-sale	**Group £000s**	**Company £000s**	Group £000s	Company £000s
Available-for-sale financial assets	**4,417**	**4,417**	—	—

Available-for-sale financial assets are level 1 financial instruments as equity securities in Arrowhead Pharmaceuticals Inc listed in the US. These are denominated in US dollars. The maximum exposure to credit risk at the reporting date is the carrying value of the securities classified as available-for-sale.

Financial liabilities by category

	2016		2015	
Other financial liabilities at amortised cost	**Group £000s**	**Company £000s**	Group £000s	Company £000s
Trade and other payables	**1,537**	**960**	1,038	744
Loans from subsidiary undertakings	**—**	**4,478**	—	—
Total	**1,537**	**5,438**	1,038	744

All amounts are short term.

Credit quality of financial assets (loans and receivables)

The maximum exposure to credit risk at the reporting date by class of financial asset was:

	2016		2015	
	Group £000s	**Company £000s**	Group £000s	Company £000s
Trade and other receivables	**1,347**	**16,487**	412	13,895

Cash and cash equivalents are not considered to be exposed to credit risk due to the fact it sits within the bank. The Group considers the possibility of significant loss in the event of non-performance by a financial counterparty to be unlikely.

Capital management

The Group considers its capital to be equal to the sum of its total equity. The Group monitors its capital using a number of key performance indicators including cash flow projections, working capital ratios, the cost to achieve preclinical and clinical milestones and potential revenue from existing partnerships and ongoing licensing activities. The Group's objective when managing its capital is to ensure it obtains sufficient funding for continuing as a going concern. The Group funds its capital requirements through the issue of new shares to investors, milestone and research support payments received from existing licensing partners and potential new licensees.

Notes to the financial statements continued

24. Financial instruments and risk management continued

Interest rate risk

The nature of the Group's activities and the basis of funding are such that the Group has significant liquid resources. The Group uses these resources to meet the cost of future research and development activities. Consequently, it seeks to minimise risk in the holding of its bank deposits while maintaining a reasonable rate of interest. The Group is not financially dependent on the income earned on these resources and therefore the risk of interest rate fluctuations is not significant to the business. Nonetheless, the directors take steps to secure rates of interest which generate a return for the Group. All deposits are held in instant access accounts, to provide flexibility and access to the funds and to avoid locking into potentially unattractive interest rates.

Credit and liquidity risk

Credit risk is managed on a Group basis. Funds are deposited with financial institutions with a credit rating equivalent to, or above, the main UK clearing banks. The Group's liquid resources are invested having regard to the timing of payments to be made in the ordinary course of the Group's activities. All financial liabilities are payable in the short term (between zero and three months) and the Group maintains adequate bank balances in either instant access or short-term deposits to meet those liabilities as they fall due. The Group considers the maximum credit risk relating to trade receivables is £810,000, but has assessed that no provision against this is required as the credit risk of the counter-party is considered to be low.

Currency risk

The Group operates in a global market with income possibly arising in a number of different currencies, principally in sterling or euros. Additionally, the Group holds available-for-sale financial assets in US dollars. The majority of the operating costs are incurred in euros with the rest predominantly in sterling. The Group does not hedge potential future income since the existence, quantum and timing of such income cannot be accurately predicted.

Financial assets and liabilities denominated in euros and translated into sterling at the closing rate were:

	2016		2015	
	Group £000s	**Company £000s**	Group £000s	Company £000s
Financial assets	**11,535**	**26,932**	10,748	20,202
Financial liabilities	**(614)**	**(4,529)**	(305)	—
Net financial assets	**10,921**	**22,403**	10,443	20,202

Financial assets and liabilities denominated in US dollars and translated into sterling at the closing rate were:

	2016		2015	
	Group £000s	**Company £000s**	Group £000s	Company £000s
Financial assets	**8,928**	**8,118**	2	—
Financial liabilities	**(40)**	**(33)**	—	—
Net financial assets	**8,888**	**8,085**	2	—

The following table illustrates the sensitivity of the net result for the year and the reported financial assets of the Group in regards to the exchange rate for sterling: euro.

During the year sterling depreciated by 14% versus the euro. The table shows the impact of an additional weakening or strengthening of sterling against the euro by 20%.

2016	**As reported £000s**	**If sterling rose 20% £000s**	**If sterling fell 20% £000s**
Group result for the year	**(8,440)**	**(8,326)**	**(8,611)**
Euro denominated net financial assets	**10,921**	**9,101**	**13,651**
Total equity at 31 December 2016	**54,184**	**51,803**	**57,576**

2015	As reported £000s	If sterling rose 20% £000s	If sterling fell 20% £000s
Group result for the year	(6,645)	(5,898)	(7,542)
Euro denominated net financial assets	10,443	8,703	13,054
Total equity at 31 December 2015	60,427	58,577	62,647

24. Financial instruments and risk management continued

The following table illustrates the sensitivity of the net result for the year and the reported financial assets of the Group in regards to the exchange rate for sterling: US dollar.

During the year sterling depreciated by 17% versus the US dollar. The table shows the impact of an additional weakening or strengthening of sterling against the US dollar by 20%.

2016	As reported £000s	If sterling rose 20% £000s	If sterling fell 20% £000s
Group result for the year	(8,440)	(8440)	(8,440)
US dollar denominated net financial assets	8,888	7,407	11,110
Total equity at 31 December 2016	54,184	52,703	56,406

The Group had no material operating exposure to the US dollar in 2015, so comparatives are not presented.

Except for the available-for-sale financial assets explained above, no amounts are included in the balance sheet at fair value and therefore no fair value hierarchy is included.

25. Related party transactions

The Company and Group had transactions during the year and balances at the year end with the following organisations which are considered to be related parties:

	2016		2015	
	Group £000s	Company £000s	Group £000s	Company £000s
Silence Therapeutics GmbH				
Expenses charge for services	—	6,217	—	4,454
Balance owed at 31 December	—	11,694	—	13,552
Pharmalogos Limited				
Expenses charge for services	—	—	20	20
Balance owed at 31 December	—	—	—	—

Pharmalogos Limited, a company controlled by Dr Stella Khan, wife of Dr Michael Khan, supplied research services to Silence Therapeutics plc until February 2015.

26. Subsequent events

During January 2017, Silence purchased a further 4.5% of the issued share capital of Arrowhead Pharmaceuticals Inc. for an additional purchase price of £4.9m, bringing the total holding to 9.2%, as announced on 13 January 2017.

27. Group companies

In accordance with Section 409 of the Companies Act 2006 a full list of subsidiaries, the address of the registered office and effective percentage of equity owned as at 31 December 2016 are disclosed below.

All subsidiaries are wholly owned.

Name	Registered address
Silence Therapeutics GmbH	Robert-Roessle-Str. 10, 13125 Berlin, Germany
Intradigm Corporation	2400 Broadway, Suite 200, Redwood City, CA 94063, USA
Silence Therapeutics (London) Ltd	27 Eastcastle Street, London, W1W 8DH, England
Innopeg Ltd	27 Eastcastle Street, London, W1W 8DH, England

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David Ellam

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Silence trademarks
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The Silence Therapeutics logo
AtuRNAi

Glossary

AKI
Acute kidney injury

AtuRNAi
Proprietary siRNA modification pattern

Atu027
Our proprietary cancer product candidate

CRISPR
Clustered regularly interspaced short palindromic repeats

DGF
Delayed graft function

DNA
Deoxyribonucleic acid

EMA
European Medicines Agency

FDA
Food and Drug Administration

GalNAc
N-Acetylgalactosamine

IP
Intellectual property

Liposomal
Encapsulated in a lipid nanoparticle

LNP
Lipid nanoparticle

mRNA
Messenger RNA

RNA
Ribonucleic acid

siRNA
Short interfering RNA

TAB
Technology advisory board

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