LifeArc

A year of transition

Annual Report and Audited Accounts
For the year ended 31 March 2019

lifearc.org

We are helping to turn medical innovation into new products

Dr John Stageman, OBE
Chair – LifeArc
26 September 2019

I am proud to present our Annual Report and Accounts for this year in an exciting new format that better displays LifeArc's work and the multiple impacts we make on biomedical translation.

Under the inspirational guidance of our new CEO Melanie Lee, we are currently revising our core strategy and actively seeking to grow our influence and impact significantly. This growth will be fuelled by our receipt of nearly £1bn for a portion of our royalty interest in *Keytruda* (pembrolizumab). While this transaction completed after the financial reporting period, the organisation had spent much of the past financial year working towards this milestone.

The growing potential of LifeArc and the magnitude of its capital base has required a further strengthening of our governance processes and the addition of new senior leadership and Trustees with additional skills and experience. We have also sought the views of our key strategic partners in translation and those of our customers and collaborators as we work to define our wider set of future priorities.

A further change affecting the charity will be a shift in our financial year. From January 2020, we will be following a calendar year for accounting purposes. That will mean that we will produce a further set of audited accounts for the time period April-December 2019.

As this report outlines, we have made great progress this year with our translational projects. We have out-licensed to pharmaceutical companies our own drug discovery work, translated new diagnostics, invested in scientists, companies and start-ups through our new funds and increased the level of professional support we provide to charities and research organisations especially the Medical Research Council.

This has only been made possible because of the dedication and hard work of our employees, our partners and our collaborators. As Chair of LifeArc, I would like to express my sincere gratitude to all of you. I look forward to building on our success and translational impacts for patients in the coming year.

Our purpose: to advance promising science into benefits for patients

We focus on translation – progressing work from early lab-based findings through to a point where it can be further developed for use in patients. By working in this way, we play a key role in developing new treatments, medicines, diagnostics, technologies or information resources.

At LifeArc, we seek out innovation, primarily in academia, in order to help scientists progress their discoveries along the journey to becoming a medicine, diagnostic or intervention.

We help advance this innovation through our own lab-based research, the support and advice we provide to our partners, the funding we make available and by developing people with expertise in medical translation.

We consider that investing in projects with a high degree of risk or where commercial returns may be low is part of fulfilling our charitable objectives.

Translational advice

Our expert teams support technology transfer including: protecting and managing intellectual property; evaluating the translational potential of research portfolios; and advising on funding, the development path and routes to market.

Translational science

Our own laboratories conduct research to advance innovation into potential new medicines and diagnostics.

Centre for Therapeutics Discovery

Advances research into early stage drug discovery – from validating drug targets to developing molecules. We have an expertise in antibody engineering and small molecules.

Centre for Diagnostics Development

Collaborates on assay design and development and clinical validation for diagnostics. We add industry-recognised credibility and reduce the time to bring these assays to the clinic.

Funding translational research

Our approach to funding research addresses some of the gaps on the journey of translating innovation, offering an integrated funding model for biomedical sciences.

Philanthropic Fund

Provides grants to researchers for advancing new treatments for rare diseases. By incubating and de-risking projects, we aim to make investment in therapeutics for rare diseases more attractive.

Seed Fund

Making investments and providing expertise for early stage spin-out companies within the UK. The fund aims to bridge the gap and incubate small start ups to a point where they could attract venture funding.

Venture Capital Fund

Providing capital to an independently managed life sciences fund. The fund will invest in companies working on preclinical and clinical therapeutic development, including opportunities arising through our Seed Fund.

People development

Our employees

Provide an environment and opportunities for our people to continually develop their skills and technical expertise.

Fellowships

We've established two fellowships to help develop skills and knowledge for scientists who are interested in building a career in technology transfer.

Industrial placements

We provide a one-year industrial placement programme in our labs to UK university students currently studying a degree in life sciences.

Outcomes

Advancing science

We create knowledge through our research and seek to share and disseminate the newly acquired knowledge through publications and meetings. We share our skills and knowledge with our partners and other groups to advance research.

New therapies for development

Our drug discovery and diagnostic development activity produces candidate molecules/packages or diagnostics that can be partnered with others for further development or manufacture.

New companies and collaborations

Through our activities, we support the creation and development of start ups and help foster alliances that progress new therapies.

Intellectual property protection

Our translational advice and activity supports the protection of intellectual property derived from research. This ensures it benefits both commercially and for patients.

Skilled people

Our development support helps people develop new skills and knowledge, ensuring the next generation of scientists can contribute to translation activities in the future.

How we do it

We **collaborate** with a broad range of groups including medical research charities, research organisations, industry and academic scientists.

We develop data-driven **solutions** to navigate the path to the patient.

Highlights of the year

Operational highlights

We've made good progress this year across all areas of focus. We have partnered many of the assets and projects, handing over packages to pharmaceutical and biotechnology companies for further development. We have shared our knowledge and discovery through scientific channels, invested in projects with great potential and helped scientists partner their science on the path to commercialisation.

2	We out-licensed two programmes this year to pharmaceutical companies. (see p10)
£1.9m	We have commitments to award three grants from the Philanthropic Fund in our first review of submissions. (p17)
47	We produced 47 publications, posters and presentations in 2018.
23	We created new licences through our partnering activity for the Medical Research Council. (p14)
1	We humanised a new antibody aimed at a new approach against Alzheimer's disease. (p10)

Financial highlights

£55.2m	**Total income.** Increase of £29.3m (113%) on 2018 (£25.9m), primarily due to increased royalty income from Keytruda.
£8.1m	**Gain on investments.** Increase of £7.9m on 2018 (£0.2m).
£30.6m	**Total expenditure.** Increase of £4.1m (15.5%) on 2018 (£26.5m).
£32.7m	**Net income.** Increase of £33.2m on 2018 (£0.5m net loss).

Antibody developments

We have an expertise in developing antibodies that can be used as therapies. In 2007 we entered into a collaboration to humanise an antibody that became the cancer therapy *Keytruda* (pembrolizumab). *Keytruda* is now one of the fastest growing prescription medicines, offering patients a treatment for a range of cancers that previously had few treatment options.

Our work provided us with royalty rights – which we monetised a portion of in May 2019 for nearly £1bn. We intend to use this capital to enhance our ability to advance new therapies.

Putting in place the foundations for life-changing investment

Dr Melanie Lee, CBE
CEO – LifeArc

LifeArc is a purpose-driven organisation. We help turn promising science into benefits for patients. Our role is in translation – taking early ideas from first discovery principles into a commercial or usable product the industry will recognise.

We have a 25-year legacy of collaborating with scientists, academics and industry on diagnostics and therapies, enhancing and protecting innovation, and advancing promising research. We have been enormously successful in these endeavours.

But the world we deliver products into doesn't stand still. Healthcare, science and technology are ever-changing, and this applies to translation as well.

I joined LifeArc as CEO in November 2018, and with my team and Board of Trustees, I have been working on how we respond to this changing landscape, to ensure LifeArc remains relevant and can continue to achieve our charitable objectives. In that sense, this is a year of transition – for me, for LifeArc and for our people. Here I will explain our thinking, and some of the work we have been doing.

A complete skills package

First though, perhaps I should say why I joined LifeArc, and what I found here. For me, it was a great opportunity to join people I knew would have industrial skills, but in a non-commercial environment. These industrial skills are much under-appreciated in this country. They are absolutely critical to the processes involved in translation – turning basic science into benefits for patients.

I was excited that in a less commercial organisation I could work with people who would be team-orientated, effectively trained, and motivated by our charitable purpose. I include within that our Board of Trustees, as they are the guardians of our charitable purpose.

LifeArc, and translation, are part of a life sciences sector that is critical to the UK economy – with over 5,500 companies, nearly 240,000 employees and a turnover of over £70bn in 2017. Translating the UK's R&D innovation into public and economic benefit remains a Government priority. The UK is world-renowned for its capabilities in quality basic science and must consider how it can best develop that research for health and economic benefit.

One of the ways is to increase the focus on impact and translation of promising academic

The world into which we deliver the products is changing. In the future, pharmaceutical companies will still need packaged therapeutic opportunities, but to be differentiated, the products will need to carry more information than they have in the past.

research to make an even greater difference – which is our purpose at LifeArc.

Within our workforce of 190 people, we have industrial skills for making new therapeutics and for molecular diagnostics. We also have the skills for the support activities that are part of a complete package for translation – those of scrutinising investment or different financial models, engaging with charities and academics, working on technology transfer and filing intellectual property (IP). To have the opportunity to be part of a really tangible self-sufficient medical charity which spans all these activities made the position very attractive.

One other aspect that made the role attractive was the plan to monetise our interest in *Keytruda* (pembrolizumab), MSD's anti-PD-1 therapy. The royalty rights from pembrolizumab were a result of our collaboration in 2007 on humanising the antibody-based therapy now marketed by MSD.

In May 2019, LifeArc received over $1bn from CPPIB Credit Europe – a wholly owned subsidiary of Canada Pension Plan Investment Board (CPPIB) – for a portion of that royalty interest. The transaction makes LifeArc one of the UK's leading medical research charities by size of investment assets, and will allow us to significantly expand our goal of advancing research that has direct benefits for human health. Thus, that original collaboration was transformative – both for us and for the many cancer patients who are receiving the therapy.

For LifeArc, the money means we could probably exist for many years at our current rate of spend, and with our current traditional translation model. But is that enough?

The answer is no, not if we aspire to continue making a big impact in the provision of healthcare and changing patients' lives for the better. There is so much more we can do while retaining our focus on, and skills in, translation. We want to broaden our understanding, our information, and our other skills to embrace the future of healthcare.

A changing marketplace

The world into which we deliver the products is changing. In the future, pharmaceutical companies will still need well prepared, validated therapeutic opportunities. But to be differentiated, the products will need to carry more information than they have in the past. Diagnostics will be able to identify much earlier those patients at likelihood of developing a condition.

Advances in data analytics and genomic information will enable greater targeting of medicines to a sub-set of patients. For LifeArc to remain at the cutting edge, we must embrace this world of data and informatics within our activities.

Digital is, in fact, one of the four key elements that I believe represent a different future for healthcare. The other three are drugs, devices, and diagnostics. These are what I call the 4Ds. We need to encourage the drug and devices industry to be more interactive with digital and pay more attention to diagnosis. Each sector is constrained within its own business model, and the commercial aspects of those business models prevent each sector from being as innovative and as interactive as it should be.

There are instances where two or three of these parts of the healthcare ecosystem have come together to help patients better control their disease. Diabetes is a good example, where a glucose monitor, an insulin pump and a closed-loop app on a mobile phone constantly monitor and deliver insulin when needed. This is life-changing, particularly for parents of children with type-1 diabetes.

But of those 4Ds, that early accuracy of diagnosis, based on our growing understanding of the genomics of diabetes, is absent. For the patient and parent if definitive diagnosis, treatment, monitoring and intervention began at an earlier age, in infancy rather than at around six or seven years of age, it would bring benefit to development of the child and relieve many years of concern for the parents.

Many cases exist where the industry has satisfied their commercial goals to treat patients with established disease and monitor them carefully. But they miss the opportunity for early diagnosis and, best case, prevention and instead treat on top of established diseases and co-morbidities. The concept of the 4Ds integrating at the outset will lead to new research into early onset and prevention of disease and the use of established treatments in the early setting.

A change in responsibility

Our newly found financial security also brings with it a new level of responsibility. We have been working with our Board of Trustees on evolving our strategy. We are developing three new strategic pillars – sustainability, impact and reputation.

Sustainability

Ensuring our activity creates long-term sustainability, both in investment and potential for return – financial and patient benefit. This means enhancing our governance and strengthening our financial procedures and systems. And it means an investment strategy to provide for, and sustain, our science strategy.

Impact

Growing our impact by supporting projects and sharing resources for research that will benefit patient wellbeing and understanding of disease. To monitor this we will be advancing the ways we measure our impact across a range of parameters, such as medical and patient benefit.

Reputation

Enhancing our reputation through practising excellence in science, acting in line with our behaviours, and selecting projects that support our sustainability and impact priorities. Reputation is critical to us, as our model relies on collaborating with academics and those in early R&D, and then attracting good commercial and charity partners.

This evolution builds on our previously stated strategic aims to create collaborations and share resources, to broaden our skills and technologies and to fund and invest in new therapeutics and diagnostics. While we develop our new approach, we continue to focus on our ongoing projects, targets and objectives.

£5m

Money available for grants from the Philanthropic Fund

£25m

Seed Fund aims to invest in new start ups

What we will plan to do here is target some very specific areas where we have identified some short-term wins. Many of the first instances will not be new drugs – they will be existing drugs applied to the better treatment of patients by being administered at a constant level or at the right time.

Impact through funding

Two years ago, the Board committed to increase LifeArc's impact in new ways. We agreed we would establish three funds. The rationale was to make money available to promote and advance science in places where we could see gaps in the translation sector. We launched two of these funds – the Philanthropic Fund and the Seed Fund – in 2017 through an earlier round of monetisation.

The Philanthropic Fund aims to advance research into rare diseases, in the most difficult of areas, where industry may not consider there is enough commercial potential to invest. It has received many worthwhile applications and committed funding to some of these. Since the financial year end, the Seed Fund has made two investments: one is a £1.5m investment in Ducentis to develop novel therapies for the treatment of autoimmune disease; the second is in a small spin out, Caldan Therapeutics, looking to address metabolic diseases.

The third step on our funding ladder is an independent Venture Capital Fund. This fund managed by Bridge Valley Ventures already has our commitment of £75m.

Keeping pace with science

As a medical charity, LifeArc can be longer term in our thinking than commercial organisations. We see new modalities, new types of molecule, and opportunities to test new therapeutics. These can take time to get off the ground – because the traditional pharmaceutical and biotechnology sector take time to recognise their potential. So the questions we are asking ourselves now relate to the degree to which we do things in house, what we do in collaboration, and what network we put in place around those areas that can best advise and make the most of other people's early science innovations.

We now have the opportunity to lift and advance our existing internal technology platforms. We've been good at small and large molecules, and the antibody platform. But the technologies we focus on – antibody technology, for example – are moving on. *Keytruda* was a result of humanisation of animal antibodies, making them suitable for use in humans. But the isolation of therapeutic antibodies will now come from animals engineered to produce human antibodies.

What is in demand is the ability to isolate human antibodies and make sure we can identify rapidly the ones with therapeutic potential. This is why we invested in a strategic partnership with Kymab in June 2019. It enhances our ability, giving us a state-of-the-art platform in house, so we are in line with the leading industry standard in antibody technologies. This is important for both LifeArc and for UK academia, because we can use this platform to produce antibodies of therapeutic quality for academics.

We are also putting in a good deal of work to enhance the contribution our people make to the organisation. We have been running leadership training for senior leadership and line managers with the goal of helping them unlock their potential.

New Behaviours Framework

We've also established four behavioural traits that will set the tone and culture for how we work. These are:

- Commitment is the belief in our mission and our ability to positively transform patients' lives.
- Innovation is being trusted to be innovative, to create new solutions and practices.
- Collaboration is us working together, inclusively.
- Excellence is continually improving the quality and impact of our work.

Outlook

It takes a strong network of translational experts to produce life-changing products. We recognise the importance of our people at LifeArc, and the skills and expertise they bring – they are a key part of our success in the future. We also have a great eco-system in the UK, spanning academia, charities, and large and small companies, providing new routes for innovative science. And today patients are helping to shape that science, by sharing their views and needs, and charities are helping to fund research.

We are on a journey with our strategy. Nothing is going to change overnight, because we're conducting an activity which is essentially long term. The science requires incremental build, so we are planning our direction of travel, in discussion with our Board of Trustees, broken down into manageable chunks over the next three to five years.

For this shortened financial year ending in December, our focus will be on: developing and setting out a new strategy for the next decade; preparing the operational plan to support the strategy implementation; integrating the Kymab platform; and continuing to build new alliances and collaborations that support translation.

It is an exciting time for all of us in life sciences of which we are privileged to be a part, and we share a great mission to discover, develop and deliver valuable treatments and diagnostics to patients in need.

Dr Melanie Lee, CBE

CEO – LifeArc
26 September 2019

Our success depends on people

Successful scientific advances are the product of multiple advances and great collaborations. At LifeArc, our success is a result of our people and our partners.

We have nearly 200 highly skilled employees working across three sites. Their knowledge, commitment and creativity are vital to helping us achieve our objectives. We know that they are engaged with the work we do and our purpose.

This year we conducted an employee survey to identify areas where we were doing well and those where our people felt we could improve. We had a positive response rate and 84% of respondents said they were engaged with working at LifeArc.

The majority of respondents surveyed said they enjoyed interesting, challenging work and related strongly to LifeArc's mission for patient impact. The findings also showed people felt there was an encouraging and supportive atmosphere.

The results also identified areas where we can improve, such as providing clarity on the link between LifeArc's objectives and their work, career progression opportunities and improving our communication overall. We are addressing these issues.

Communications and culture

To improve our internal communications, we have introduced town hall meetings for all employees, where leadership can outline our strategy and share updates on performance. We also brought in organisation-wide goals this year, helping cascade these to teams and into individual objectives.

Culture is a critical part of any organisation. This year, we introduced a new Behaviours Framework which outlines the ways of working and shapes our culture. The framework enables people to recognise and promote positive behaviours and understand where we can be better. Our aim is for the behaviours to become part of the way we work. We have provided facilitated workshops across the organisation to understand how teams can own them.

People development

We are committed to developing our people so that they can fulfil their potential and feel that their skills remain relevant in the rapidly changing sector.

We have been providing our employees with workshops and independent advice in response to the Brexit situation. We will continue to offer support for those people and their families affected by the changes.

We have continued to develop our career ladders programme, which enables employees to choose between technical or management paths. This empowers employees to work to their strengths and to clearly understand the requirements for progression to the next level.

In 2019 we will be implementing a leadership development programme. This will support our managers in developing the skills necessary for leading their teams.

Developing others

We have continued to develop others this year, through fellowships and industrial placement opportunities.

Our successful LifeArc-AUTM Fellows programme was once again over-subscribed. The programme, run jointly with AUTM Foundation, recruits seven life scientists who are interested in building a career in technology transfer.

Building on this success of the AUTM programme, this year we partnered with three other UK-based technology transfer organisations to launch a new fellowship.

The Technology Transfer Fellows programme is run in partnership with Imperial Innovations, Queen Mary Innovation and UCL Business (UCLB), the technology transfer offices for Imperial College London, Queen Mary University London and University College London, respectively. The new initiative will provide a full year of training and experience in four of London's leading technology transfer environments.

We also continued to help university students gain valuable experience within the life sciences sector. We hosted 10 life sciences students for a one-year industrial placement scheme for UK university students as part of their degree course. These students work in our labs and take an active role in our work.

Our partners

We also have a number of collaborations with external researchers, organisations and charities. Through these, we can amplify our ability to advance science for patients.

We work closely with a range of partners, including global pharmaceutical companies, patient groups and other funders. In doing so, we can explore new operating models, each with the potential to progress technologies and therapies for unmet medical needs and benefit the patients who need them.

Our LifeArc-AUTM fellows from 2018-19 (pictured) learn the skills and knowledge to help them transition into a career in technology transfer.

At our labs in Stevenage, scientists seek to develop and refine molecules that have the potential to become new medicines.

Centre for Therapeutics Discovery

With around 90 scientists working at the site, drug discovery teams can access biology and chemistry expertise across assay development, screening, compound profiling and cellular pharmacology to develop new chemical substances.

Our biotherapeutics team – who led the humanisation of *Keytruda* – generate therapeutic antibodies and carry out affinity maturation and biophysical characterisation on candidate proteins. Out of more than 70 antibodies we have 'humanised', four are licensed medicines and five are in clinical trials.

These skills are critical in advancing lab-based research along the pathway to developing medicines and treatments for patients. In our work, we fit within a complex system of medical research, including academics, patients, research-funders and pharmaceutical companies.

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Therapeutic or technology development projects progressed in the year

Initial ideas come in from academic collaborations; we then seek to build collaborations with others and ultimately out-license the work to the pharmaceutical and biotechnology partners.

Major achievements during the year
In the year, we progressed 37 therapeutic or technology development projects. This included starting eight new projects, advancing 18 and terminating 11.

Highlights for the year include;

— Two licensing agreements; one with Daiicho Sankyo and the other with the Chinese company Sinomab.
— Successfully humanised an antibody for Tau Bio-logics. TauC3 is being researched against Alzheimer's.
— Entered into a new multi-year partnership with Cancer Research UK and the Japanese pharmaceutical company Ono Pharmaceutical to develop new immunotherapy drug targets. The collaboration will identify targets for the development of both antibody and small molecule therapeutics. Boosted by a multi-million-pound investment from Ono Pharmaceutical and a further investment from LifeArc, drug discovery experts will be pursuing targets within Cancer Research UK's extensive portfolio of immuno-oncology research.

Strategic report

Governance report

Financial statements

Case study

Advancing research into licensing

In February 2019, we finalised an agreement to license an ion-channel drug-discovery programme to global pharmaceutical company Daiichi Sankyo. It's a textbook example of the approach we take at Stevenage, which is to develop new medicines in target areas such as neurosciences, and work with pharmaceutical companies to ensure ongoing development.

In this case, we had identified some original research through a paper in 2010, as a new approach dealing with intractable pain. We then worked with the principal academic investigator to shape the study, with funding from Daiichi Sankyo.

With high-throughput screening to find some chemical starting points for new medicines, we optimised these chemicals and carried out invivo studies to demonstrate they acted on the target and reduced the sensation of pain.

Daiichi Sankyo now has an exclusive worldwide licence to our discovery-stage programme of small molecules, offering the potential to develop into new treatments for pain.

At our facility in Edinburgh, we focus on developing diagnostics from initial concept through to a point of clinical validation. These steps can reduce the time it takes to bring tests to the patient.

Centre for Diagnostics Development

Case study

Faster TB detection

One of the main challenges with treating tuberculosis (TB) can be in detecting the presence of the active bacterium and its response to treatments. The current gold standard test has a number of limitations: it needs to be conducted in a specialist laboratory, can take several weeks to provide a response and is relatively costly. These three factors severely limit access to this test in developing countries, where TB causes the greatest impact.

In 2010, researchers at the University of St Andrews began work on a new biomarker for TB, using the concept of molecular bacterial load assay (MBLA). This approach could enable a diagnosis of active TB in hours rather than weeks and provide greater accuracy on how active the infection was.

LifeArc began to work with St Andrews in 2018 with the aim of developing the lab-based concept into a relatively inexpensive diagnostic that would work in developing countries.

Our scientists have been working to standardise and improve the diagnostic to make it ready for testing in a clinical setting. These are precisely the steps needed for industry to have a product to commercialise.

We are on target to have a diagnostic ready by the end of the year which could be tested in the African countries where it is greatly needed.

We look for collaborative projects with academic scientists or diagnostics companies on molecular diagnostics (RNA/DNA based tests). Our primary focus is in the disease areas of oncology and infectious disease.

Working with some of the most advanced and comprehensive technologies available, our approach adds industry-recognised credibility to the research concepts our partners develop. We frequently also work with academics on funding, investment or partnership opportunities, all with the aim of helping to create a diagnostic ready to go into manufacture and production.

Major achievements during the year

— TB diagnostic – Work on the TB infection and treatment monitoring assay, in collaboration with the University of St Andrews, has made significant advances (see case study). It has passed some key milestones, including the successful replication of results seen in field trials. The project is now progressing towards producing a research-based kit that could be tested in a clinical setting.

— Breast cancer diagnostic – The collaboration we began with the Belgian diagnostic company Biocartis has expanded. The original scope was to develop an in vitro diagnostic for qualitative detection of mutations in the estrogen receptor 1 (ESR1). Based on recent advances, the scope and size of the project has increased. It will use the potential of the *Idylla* platform to identify additional point mutations, representing a benefit in breast cancer diagnosis.

— ISO mark – The ISO 13485:2016 certification is a critical element in the diagnostic team's ability to develop manufacturing-standard diagnostics. The site initially achieved accreditation in 2017 and was up for re-certification this year. After an extensive audit by BSI of the activities and the diagnostics quality system, the BSI team issued a positive recommendation to retain the certification.

LifeArc's heritage started with our technology transfer services. Based on the expertise we provide in protecting intellectual property and negotiating commercial opportunities from new research, we help scientists create value from their innovation.

Translational advice

Our technology transfer professionals are responsible for a wide range of translational advice and commercial support. Our expert teams help protect and manage intellectual property, evaluate the translational potential of research portfolios, and advise on funding, development pathways and routes to market.

We provide these commercialisation services to medical research charities and other research organisations.

Helping charities
As the basic science research that many charities fund begins to produce results, charities are faced with advancing these findings into translation. It is not an area that many are familiar with, which is why we provide our expertise.

We work with charities to assess their research portfolios and opportunities for partnering. We also advise where research investment might be most beneficially allocated, and how to connect with industry to move towards clinical trials while protecting their investment. We aim to ensure a charity's investment creates as much patient impact as possible, as well as financial returns for the charities to fund future treatments.

Last year, we provided services to 24 charities. This included our teams reviewing and amending grant terms and conditions; advising and supporting them on contractual matters and revenue share; advising on investments in spin outs; and evaluating patents.

Supporting the MRC
LifeArc, which was formerly MRC Technology, was originally established to support technology transfer of research produced by the Medical Research Council. Today we continue this work, supporting their intellectual property and technology transfer needs.

In the year ended March 2019, LifeArc managed a portfolio of 563 assets, 146 of those being patented. 67% of the patent portfolio is partnered. From the non-commercialised patented assets, 55% are actively being marketed and a further 25% have already attracted interest from commercial partners.

Major achievements during the year

— We completed 10 portfolio reviews. This is where a charity provides us with information on their research portfolio and we review the grants for their translational potential, advising on potential ways to progress projects. Of the portfolio reviews, three were for new clients.
— We also completed our final review for Parkinson's UK, a group we first worked with in 2013. They have since developed their translational strategy, recruiting expertise and launching new funding mechanisms to support translation. Through our support, they are now well placed to understand the translational potential of their own portfolio. We will continue to help on ad hoc projects.
— With the MRC, we handled 55 new technology disclosures, a significant increase from 17 the year before. Nine of these resulted in new patent filings. Our partnering activities for MRC resulted in 23 new licences.

55

New technology disclosures

Case study

Joining forces for patient benefit

Action Medical Research helps save and change children's lives by funding research most likely to make a difference to children. We work with the charity providing guidance on how they might advance this research as it moves through the pipeline to the clinic.

Together, we recently launched a joint call for projects, seeking out proposals from researchers that could support translational science in rare diseases affecting children.

Action Medical Research's Chief Executive, Julie Buckler, believes the partnership has played to each party's strengths: "Our relationship brings together our peer review and grant funding with LifeArc's expertise in identifying and supporting research that will successfully move through translation.

"LifeArc has enhanced what we do and helped us evolve a new way of working. Very importantly, it has enabled us together to fund two new projects that have the best chance of success in tackling rare diseases in children."

Through our funds, we make money available at the various stages of medical translation to help progress science along the pathway to becoming new products.

Funding translational research

Case study

Investing in the potential for patient impact

Ducentis BioTherapeutics is a textbook example of the purpose of our Seed Fund – where we can invest in progressing science that has good potential for patient impact to the point where it will attract further investment.

Ducentis was established when a senior scientist at Oxford's Jenner Institute teamed up with an entrepreneurial manager to develop new medicines that would work on a key receptor that regulates the immune system.

The company aims to find new therapies that work on this receptor, so potentially providing treatment options for a range of immune conditions, from psoriasis to rheumatoid arthritis. The science is at a very early stage, but we hope the seed money will help Ducentis progress it to a stage where it will attract venture capital, to take it on towards treating the patient.

There are very few truly early-stage investors such as LifeArc, who can, and are prepared to, take these risks. We are confident our Seed Fund will be effective in stimulating further translation opportunities.

£3m

Invested by the Seed Fund in two biotechnology start ups since the financial year end

In keeping with our purpose to progress scientific discoveries, we determined in 2017 to put funds in place that could address the gaps we identified in the translation sector. Taken together, our funds represent a new and integrated funding model for biomedical innovation in the UK and support our objective of progressing promising medical research.

Our charitable model allows us to invest in projects where commercial returns may be low or potentially non-existent. But our approach also has the potential to contribute to our long-term sustainability.

Philanthropic Fund

Through this fund, we set aside £5m to provide grants to translational research into rare diseases. Rare diseases affect approximately one in 20 people worldwide. They are often chronic, life-threatening and isolating for the sufferers and their families. Yet funds for research are scarce, as the opportunity for a return is low and therefore not attractive to industry.

Our aim is that by de-risking projects by supporting the researchers in translation, investment may become a more attractive opportunity.

The Philanthropic Fund is supported by a committee of independent experts who meet twice a year to review applications. At the first meeting towards the end of 2018, the committee identified three projects for investment totalling around £1.9m.

Seed Fund

The Seed Fund was established with an initial sum of £25m to be invested over four years into early-stage start up companies and spin outs.

It aims to progress new therapeutics and also potentially provide LifeArc with a financial return from successful investments. The fund is primarily focused on UK opportunities, identifying those with strong IP positions and a proposition they deem deliverable to market. The Seed Fund will provide more than just financial support to those companies it invests in, offering advice and guidance for start ups as well.

In its first year of operation the fund identified and progressed a number of opportunities. Two of these were signed after the close of our financial year:

— £1.5m into Caldan Therapeutics, a company developing novel therapeutics for the treatment of metabolic diseases based on original work.

— £1.5m investment in Ducentis BioTherapeutics to develop novel therapies for the treatment of autoimmune disease.

Venture Capital Fund

LifeArc identified an opportunity in the translational financing market to invest in more advanced medical research companies, fitting more closely within the biotechnology space. To respond to this, we have backed a new life science fund managed by Bridge Valley Ventures.

As a cornerstone investor in the fund, we have provided £75m in a first close, which completed in the third quarter of 2019. The fund will finance companies that are developing innovative therapeutics at the preclinical and clinical phase in areas of therapeutic need.

Financial review

We had a year of strong financial performance and costs were controlled as we continued to invest in our public benefit objectives.

Overview

The strong financial performance in the year has been primarily due to the exceptionally strong performance of royalties from *Keytruda* during the year. This has been due to earlier than expected regulatory approvals of new oncology indications together with an increased market share, which has been helped by favourable clinical trial results.

The royalty cap from the 2016 *Keytruda* monetisation was reached in February 2019, consequently 100% of the royalties after that date accrued to LifeArc. Royalty income has also been favourably impacted by foreign currency translation of royalties.

Total investment returns including unrealised gains have significantly improved on the prior year. Our long-term investments achieved a net return of 7.0% which is above our target return of 5.44% (RPI + 3%) and in line with underlying market conditions.

The increases in expenditure are primarily related to increased staff costs as we expand the scope and scale of our activities.

The total incoming resources, for the year were £55.2m, which is up substantially on the previous financial year of £25.8m, reflecting the strong performance from royalty income.

Total incoming resources includes £50.1m (2018 – £20.4m) of contract and royalty income, and £1.6m (2018 – £1.75m) received for intellectual property management and technology transfer services.

Substantially all (£46m) of LifeArc's contract and royalty income comprises royalties from sales of pembrolizumab (*Keytruda*). *Keytruda* is an immunotherapy product which initially received US Food and Drug Administration (FDA) approval in 2014 for the treatment of advanced melanoma but has since received expanded approval to include a number of additional cancer indications and territories. Contract and royalty income also includes a share of royalties arising from the development of the multiple sclerosis treatment *Tysabri* (natalizumab).

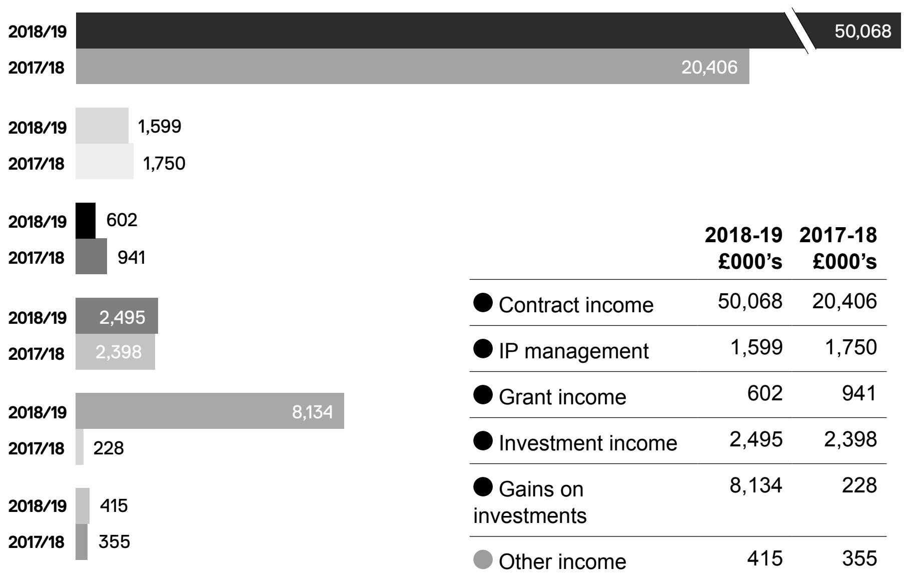
Net gains on investments totalled £8.1m for the year, on an opening investment balance of £125m.

Total resources expended amounted to £30.6m (2018 – £26.6m). These include activities that directly relate to our public benefit objective (research and technology transfer), the cost of generating funds, corporate and governance costs and general support costs that are not directly attributable to charitable activities. The underlying expenditure relating to delivering LifeArc's public benefit objectives has increased on last year but has supported a proportionally greater increase in income. Over the year LifeArc has continued to focus on strong cost control and robust financial governance.

In May 2019 (post reporting period) LifeArc successfully completed the monetisation of its *Keytruda* royalty stream for $1.297bn. Our income from *Keytruda* will therefore be significantly higher next year due to this one-off income event and will then fall to nil. LifeArc has retained the contractual right to receive a share of any future royalty upside, in the event *Keytruda* royalties exceed an agreed level. Given the uncertainties related to any future share of *Keytruda* royalties, that potential income has not been taken into account in our current financial planning.

These funds and future investment income generated thereon will be utilised to cover LifeArc's annual expended recurring resources for the foreseeable future.

Incoming resources £000's



	2018-19 £000's	2017-18 £000's
● Contract income	50,068	20,406
● IP management	1,599	1,750
● Grant income	602	941
● Investment income	2,495	2,398
● Gains on investments	8,134	228
● Other income	415	355

Key financial metrics

	2018-19 £m	2017-18 £m
Total incoming resources	55.2	25.9
Total resources expended	30.6	26.5
Net gains on investments	8.1	0.2
Net movement in funds	32.7	(0.5)
Funds balance carried forward	207.1	175.3

The overall surplus for the year was £32.7m (2018 – deficit £0.5m).

Reserves policy

LifeArc holds reserves to ensure that, as far as is reasonably possible, its future expenditure objectives can be met, given certain assumptions about future income streams. All of LifeArc's reserves are held in pursuance of its charitable objective.

The level of free reserves held at 31 March 2019, defined as being those funds that are freely available for general purposes and excluding tangible fixed assets, was £196,148k (2018 – £164,330k).

Of our total charity reserves of £207m, £30m are currently held within designated funds: £25m for the Seed Fund, and £5m for the Philanthropic Fund.

Previously the Trustees decided that, given the long-term nature of drug discovery, a balance equivalent to between five and seven years of operating costs (2018 – £153m – £214m) was desirable to provide a buffer against any substantial and unanticipated interruption to the income stream and to provide the charity with sufficient flexibility to manage its affairs in this event.

Following the monetisation of LifeArc's royalty stream from *Keytruda*, the policy is now being reviewed.

Auditors

PKF Littlejohn LLP has signified its willingness to continue in office as auditors.

Disclosure of information to auditors

So far as each Trustee is aware at the time of the approval of this Board report:

- there is no relevant audit information of which LifeArc's auditors are unaware
- the Trustees of the Board have taken all reasonable steps to make themselves aware of any relevant audit information and to establish that the auditors are aware of that information.

How we identify and manage risk

Risk management at LifeArc forms a core pillar of the governance programme and is designed to support informed decision making in relation to the risks that could impact the ability to achieve our objectives.

Responsibility for overall management of risk is with the Board of Trustees. The Board determines the general risk appetite of the organisation in line with our strategic priorities and ensures an appropriate risk management framework is in place to manage risks within this appetite.

The Executive Management Team, under the leadership of the Chief Executive Officer, is responsible for ensuring that appropriate resources are allocated to implementing the risk management strategy, culture and processes on behalf of the Board. It is the responsibility of the individual Executive Directors to ensure that all employees under their line management help the business to manage risk within acceptable levels.

LifeArc's Risk Management Policy seeks to minimise, so far as practicable and at an appropriate cost, the possibility that our corporate objectives are not delivered. The goal is to manage risk to a level that is defined by and acceptable to the Board rather than seek to eliminate all risks.

A good example of this approach was the response to the significant concentration of financial risk relating to LifeArc's entitlement to royalties on *Keytruda*. This was determined to exceed the Board's risk appetite and was mitigated by the monetisation of *Keytruda* royalties, providing LifeArc with a significant cash sum for investment in accordance with a defined investment strategy. The monetisation also supports the potential expansion of the spectrum of possible strategic investment opportunities to seek to increase the charity's impact.

To further develop and enhance the risk management activity a risk manager was appointed during the year. Our aim is that risk management continues to become a more integral part of the ethos and day-to-day operations of the charity, that it is dynamic and is seen as something that positively contributes to the achievement of our objectives.

Our key focus for 2019 is to further embed risk management such that each of the divisional directors will be able to identify, assess and articulate the risks for which they are accountable and, in addition, demonstrate that the risks are being managed effectively in accordance with the strategic pillars and the agreed appetite.

In March 2019, the Audit and Risk Management Committee agreed to further develop the bottom-up and top-down approach to risk management. In addition to embedding risk management in all we do, the goal is to focus to a greater degree on the external environment in which the charity operates – to consider external risks that might adversely impact the charity and ensure adequate mitigation is in place and that such risks are also considered in the ongoing evolution of the charity's strategy.

We have further developed the risk assurance map, which seeks to provide additional confidence to key stakeholders that management has suitable mitigations in place to control the organisation's principal risks, to a level that the Board considers acceptable. A key change to the risk profile has been the mitigation of the risk to LifeArc's financial sustainability following the monetisation of the *Keytruda* revenue stream in May 2019.

The key risk areas which the Board of Trustees consider to be the most relevant and their relation to the strategic pillars are on the following pages.

Risk management process

Board of Trustees

1

Audit and Risk Management Committee

2

Executive Management Team

Reporting and assurance

3

Employees

4

LifeArc's Risk Management Policy seeks to minimise, so far as practicable and at an appropriate cost, the possibility that our objectives are not delivered. The goal is to manage risk to a level defined by and acceptable to the Board rather than seek to eliminate all risks.

- Establishing the risk appetite of the charity as part of the strategic planning process, keeping this under review and validating it at least annually

- Overseeing the effectiveness of risk management
- Regular review of key risks
- Overseeing the reporting of risk to the Board and to external stakeholders

- Overall collective responsibility for supporting risk management
- Sets the tone and influences the culture of risk management across LifeArc
- Owning the process for identifying, analysing, responding to threats and opportunities within LifeArc's internal and external environments
- Maintaining an effective system of internal control that supports the achievement of LifeArc's objectives
- Monitoring the effectiveness of risk identification, risk assessment and risk management strategies

- Embrace and incorporate a risk management culture into working practices

The corporate risk register

Risk area	Strategic pillars	Description	Mitigation or in-progress actions	Change in risk profile vs prior year
Management of change	S I R	Failure to manage significant change and not realise the strategic opportunity post *Keytruda* monetisation.	**1.** Recruitment of a new CEO to work with the Board to refresh the organisation's strategy and to lead organisational change. **2.** Introduction and organisational-wide roll out of corporate goals aligned to the three new strategic pillars. **3.** Implementation of a change management framework. **4.** Landscaping, i.e. defining the scope of activity in those key areas critical to setting strategy/ redefinition of the charity's strategy.	New risk.
Financial sustainability	S	Following the *Keytruda* monetisation there is a risk that we don't deploy the resources in a way that balances our charitable aims and future financial sustainability.	**1.** LifeArc's investment portfolio is under the management of an Investment Management Committee (IMC) which now reports directly to the Board. **2.** The IMC membership and leadership is being enhanced to ensure Trustees have appropriate skills to manage a portfolio of >£1bn. New IMC chair recruited. **3.** Diversified portfolio of investment assets with multiple fund managers. Investment strategy under development. **4.** 10-year financial plan reviewed and updated annually, which reviews expected cash/ reserves levels for each year. **5.** Diversification into other income strategies.	Risk reduced. ↓
People capability and capacity	S I R	As we look to increase our impact and invest in new areas, the risk increases that we are unable to recruit, develop and retain capable and skilled employees and Trustees necessary to deliver the strategy.	**1.** Benchmarking competitors' salary and reward, with financial rewards to be linked to performance. **2.** Career ladders in place to support progression through technical or management paths. **3.** Processes are being updated linking performance management to organisation goals. **4.** Leadership programme for all managers in development. **5.** Embedding new Behaviours Framework to recognise and promote positive behaviours and foster desired culture. **6.** Skills assessment for Board was completed between March and June 2019 with appointment of new Trustees relevant to the skills gap. Skills assessment for Executive to follow.	Slightly increased and requires further assessment as the new strategy is developed. ↑

Key to strategic pillars

- S Long-term sustainability
- I Increasing our impact
- R A reputation for excellence

Risk area	Strategic pillars	Description	Mitigation or in-progress actions	Change in risk profile vs prior year
Project development and project portfolio management	S I R	Failure to select, progress or monitor a balanced project portfolio in accordance with the strategy and objectives.	**1.** Business Development department has a 'Scouting' team focused on identifying target opportunities. **2.** In-house 'Due Diligence' team analyses identified opportunities from a scientific/ technical, IP and commercial perspective and operates a two-stage assessment system including both internal and external assessors. **3.** Science Committee, a sub-committee of the Board, overview of CTD and CDD science projects. **4.** Project management function oversees project progress and timelines in CTD and CDD. **5.** Cross functional portfolio reviews regularly to check on project progress. **6.** Strategic review under way of how the project portfolio should be governed.	No change.
Major health & safety incident	S	Failure to maintain the health and safety of employees could harm our people, or have a significant reputational impact, or lead to disruption of our activities and also have serious legal consequences.	**1.** Facilities managed in accordance with regulatory standards (COSHH) and NEBOSH qualified laboratory manager. **2.** LifeArc Health and Safety Committee meets quarterly and considers appropriate responses to any incidents or near misses. **3.** Health and safety risk assessments (per activity). **4.** Health and safety update provided to monthly Executive Management meetings and quarterly to the Board.	No change.
Operational resilience and cyber risk.	S I R	Cyber-attacks on organisations have become more frequent. Loss of data, for example due to unauthorised access to IT systems or a cyber-attack, would damage our reputation and restrict our activities.	**1.** Business continuity plans in place, tested annually. **2.** Data recovery systems in place and reviewed for resilience. **3.** Network controls in place with perimeter firewalls. **4.** Anti-virus and anti-ransomware software in place. **5.** Regular external reviews of IT security environment. **6.** Compulsory cyber security awareness training for all employees and ongoing awareness activities. **7.** Two-factor authentications for key systems.	Risk has increased due to increase in external risk and cyber security threats. ↑

Governance report

Governance report

Chair’s governance overview

LifeArc is a charity with a purpose: to turn promising innovations into benefits for patients. Our primary role is translation – taking early scientific ideas from discovery into developable products that industry and the health services will recognise. This purpose – laid out in our Articles of Association – helps to guide and focus every Trustee. It is the primary motivator for us and all LifeArc employees. It is with great pride that we all play our part in this unique organisation.

The two most significant events for LifeArc in the year were the change in CEO and the preparations for the monetisation of our royalty interests in the oncology treatment *Keytruda* (pembrolizumab).

At the end of 2018, Dr Dave Toploczay, who had led the group for more than a decade, retired. Dave created a dynamic and highly professional biomedical translation organisation that is highly respected by its customers and partners.

As a Board, we recognised that the substantial new resources from *Keytruda* royalties provided LifeArc with a once in a lifetime opportunity to enhance and broaden the charity’s impact for the ultimate benefit of patients. The Board needed to find a new leader to grasp this unique opportunity, build on Dave’s legacy and set a clearly prioritised strategy for the future.

We conducted a detailed and lengthy search. My fellow Trustees and I were delighted that Dr Melanie Lee agreed to join us. Melanie has brought leadership experience from the pharmaceutical and devices industry as well as from the academic medical research and charity sectors. She is now focusing the vision for the organisation for the next 10 years.

Good governance

Good governance is fundamental to LifeArc’s success. The Board, in close cooperation with the Executive Management Team, aims to adopt best practice and demonstrate exemplary leadership and governance. We are guided by the principles of the 2017 Charity Governance Code and we make full use of the Charity Commission’s Guidance, taking professional advice as appropriate.

In line with the guidance, the Trustees regularly review the charity’s public benefit obligations when evaluating strategic initiatives. In so doing, the Trustees ensure LifeArc’s activities are in line with its charitable objectives as set out in our Articles of Association.

Following our review last year of our governance policies and procedures, which found on the whole LifeArc’s governance was operating to a good standard, we identified some areas for improvement. We have continued this year to address these.

In undertaking our strategy review, we will be looking to other organisations and considering how LifeArc can enhance its impact.

This year we enhanced our approach to risk management and reviewed our appetite for risk. This latter review was particularly relevant to the Board's decision to seek a further step in the monetisation of the *Keytruda* royalty. This work, which is progressing, is outlined earlier in the report on pages 20-23. We also reviewed and approved key policies in the year including data protection (in light of the new General Data Protection Regulation legislation), safeguarding and whistleblowing.

To reflect the magnitude of the *Keytruda* royalty monetisation (approximately £1bn), the Board has considered its structure and decision-making process in respect of the investment and use of funds. In response, the Board agreed to move the Investment Management Committee (IMC) from being a sub-committee of the Audit and Risk Management Committee (ARMC) to report directly to the Board.

The Board continues to work with the Executive Management Team to develop LifeArc's approach to diversity, recognising the importance of it in supporting effective decision making.

Skills and experience

A strong Board requires individuals with a mix of skills and experience. We are very fortunate to have Trustees from diverse backgrounds and skills to support our organisation.

The Board considered carefully this year whether additional skills would be required in light of monetisation. It identified a need for greater expertise in managing large funds and directing an investment strategy. The decision was made to recruit a new Trustee to act as Chair of the IMC by the end of the year. I am pleased that we were ahead of schedule, and in August (post reporting period) we appointed David Zahn as a new Trustee and Chair of the IMC.

David brings with him more than 20 years of experience in the investment profession and volunteers on several charitable boards, making him well-suited to chairing the IMC. He will take on the responsibility of directing and managing LifeArc's financial portfolio, with a target to produce the yield and returns required to support our strategic objectives.

Board effectiveness

The Board sought an independent consultant-led review of its performance and that of the Chair. The review considered the balance of skills, experience and knowledge, diversity (in terms of expertise and experience) of the Board, its processes and papers and its overall effectiveness.

The evaluation report found the Board operated to a good level of effectiveness but made a number of recommendations for improvement in areas, including adopting a unitary board. The Board and its sub-committees are currently working on a full implementation plan that will enact most of these recommendations.

Communications, culture and purpose

With encouragement from the Board and CEO, LifeArc has sought to apply principle 7 of the code and enhance its outreach and engagement with our stakeholders about the charity's purpose, progress and achievements. It is also seeking to work more closely at a strategic level with those key partner organisations that invest in UK biomedical translation, notably the MRC, Innovate UK, the Wellcome Trust and other medical charities.

We have bolstered our communications in the year, particularly in seeking to share the news about monetisation and develop the strategy. As we review this strategy, we will be seeking to hear more from our stakeholders and partners and identify additional ways that collaborations could benefit UK life sciences.

With our employees, LifeArc has been on a journey to create a culture of greater openness and accountability, making clear the connections between our objectives and activities and introducing new opportunities for them to hear from and question the leadership.

The organisation launched a new Behaviours Framework. This framework sets out the behaviours that are expected of all employees in the workplace and was developed after significant consultation. This initiative is an important part of fostering a culture that we need to enable LifeArc to fulfil its full potential and new ambitions.

Like all organisations, we have been aware of the ongoing uncertainty over Brexit. Regardless of the outcome of the current situation, we will continue to provide support to our employees and to commit to foster translational research in the UK. It is only by expanding our talent pool and investing in people that we will be ready to face the challenges ahead.

Conclusion

The life sciences sector is unquestionably one of the UK's most important industries, with world-class research universities, strength in translational medicine, and a leading edge in emerging fields such as digital health and genomics. LifeArc makes a most valuable contribution to this sector, and with the funds available from the monetisation, we believe we can do more.

Finally, I would like to express my sincere appreciation to my fellow Trustees and the Executive Management Team for their ongoing commitment, hard work and numerous achievements over the past year. The dramatic expansion of our potential as an organisation has demanded much from my fellow Trustees throughout this year in terms of their time commitment and dedication. I feel privileged to have had their unstinting support.

I am positive that we are on the right path to fulfil our purpose to improve human health and accelerate medical research.

Dr John Stageman OBE
Chair – LifeArc26 September 2019

Board of Trustees

Our Board is comprised of highly experienced individuals who offer expertise in biomedical sciences, the biotechnology and pharmaceutical industry, finance, charity, law and medicine.

Changes to the Board of Trustees :

Annette Dohertyserved until 30 November 2018
Jessica Mannserved until 2 September 2019
David Zahnjoined 15 August 2019

By setting strategic direction, and overseeing risk management and governance, the Board supports the Chief Executive Officer and the Executive Management Team in achieving the charity's purpose. At the date the Annual Report and financial statements were approved, the following Trustees were in place:

Diversity gender:

● Male ● Female

01. Dr John Stageman

Appointed: 29/09/14

Role: Chair Board of Trustees, Nominations and Remuneration Committees.

Skills: John has a wealth of experience in the pharmaceutical industry and biotechnology research and has held several international R&D senior management roles at AstraZeneca. In 2011 he was awarded the OBE for his services to the UK biotechnology industry.

02. Dr Paul Mussenden

Appointed: 19/06/14

Role: Chair AMRC, Deputy Chair Board of Trustees

Skills: Paul has over 20 years' experience advising companies in the healthcare industry at all stages of development from startup to pre-IPO to mature listed businesses.

03. Dr Les Hughes

Appointed: 01/03/16

Role: Chair Science Committee

Skills: Les has over 30 years' experience in a range of roles in the pharmaceutical industry and is now a consultant in portfolio management, strategy development and the successful delivery of drugs to the market.

04. Dr Declan Mulkeen

Appointed: 26/08/08

Skills: Declan is Chief of Strategy at MRC, and also a members of MRC's Management Board and Strategy Board, and UKRI Strategy Committee. He previously managed MRC funding programmes, including periods focussed on translational research, neuroscience, and physiology and infections.

05. Aisling Burnard

Appointed: 20/11/17

Skills: Aisling is Chief Executive of AMRC, and previously held a similar role at the BioIndustry Association, where she championed UK biosciences. She received an MBE in 2007 for services to science.

06. Dr Mike Romanos

Appointed: 01/03/16

Skills: Mike is an experienced biopharmaceutical industry leader with scientific breadth and extensive knowledge of translation. He is CEO of Microbiotica, previously CEO of Crescendo Biologics, global VP in GSK, Translator in Residence in Imperial College and Venture Partner in UK Innovation and Science Seed Fund.

07. Stephen Visscher

Appointed: 17/11/16

Skills: Stephen has experience of research strategy, funding, governance and building global public/private partnerships at governmental and institutional levels. He served as BBSRC Deputy CEO for many years and is now Deputy CEO/ COO with the Global Institute for Food Security in Canada. Stephen received a CBE in 2013 for services to the support of scientific research.

08. Dr Sally Burtles

Appointed: 14/11/13

Skills: Sally has 25 years' experience as a senior leader in all aspects of research management across the charity, higher education and NHS sectors. She is a skilled facilitator of research, particularly translational and experimental medicine research, preclinical development and early clinical trials of novel treatments. Currently Sally is Director and Secretary of the Lister Institute of Preventative Medicine, a Research Fellow at the University of Sunderland and a trustee at both LifeArc and Trozon X17.

9. Dan Morgan

Appointed: 20/11/17

Skills: Dan has over 20 years' experience of private capital markets, including venture investment in life sciences. He is a Member of the Institute of Chartered Accountants in England and Wales.

10. Peter Keen

Appointed: 05/02/13

Role: Chair IMC (until 15/08/19)

Skills: Peter is a chartered accountant by training with over 35 years' experience in the commercial exploitation of healthcare-related technologies in both private and public companies.

11. David Zahn

Appointed: 15/08/19

Role: Chair IMC (effective 15/08/19)

Skills: David has more than 20 years' experience in the investment profession and is currently Head of European Fixed Income at Franklin Templeton, a global investment management firm, where he leads the management of European fixed income strategies and is a member of the Fixed Income Policy Committee.

He also volunteers on several charitable boards. He is a governor and chair of the investment committee at The Health Foundation. In addition, he is a Non Executive Director at the Health Data Research UK and CFA Society of the UK.

For more detailed Trustee biographies, please visit lifearc.org/governance

Governance, structure and management

Charitable objectives

The objects of LifeArc, as set out in our Articles of Association, are:

— To promote the public benefit by improving human health and medical research, in particular by assisting the progress of the scientific discoveries and new technologies arising from research into therapeutic treatments, drugs, diagnostics, other technologies or information resources.

To work with industry, charities, universities, the health service and other relevant bodies, as well as conducting our own research and development as needed to accelerate the progress of these discoveries and technologies to the stage at which they are:

(i) capable of being made generally available to the medical profession and the public for practical application for the improvement of health and/or

(ii) are transferred or licensed to a third party to progress development of such discoveries or technologies towards such goals.

Structure, governance and management

LifeArc is a company limited by guarantee and a registered charity in England and Wales and Scotland. As a company limited by guarantee, it does not have any share capital. The charity's governing document is the Articles of Association.

It is governed by a Board of Trustees. The Board is appointed from the members and acts in the capacity of directors of the company and as Trustees of the charity.

The Board is responsible for setting strategy, ensuring that there are the necessary financial, human and physical assets to meet the charity's strategic aims; monitoring the performance of the charity; and overseeing risk management. It is also responsible for Trustee and executive management succession planning, setting the charity's culture and upholding the charity's values.

It delegates oversight and assurance for key business functions to the five dedicated Board committees. The day-to-day running of the charity is the responsibility of the Executive Directors.

Members

As a company limited by guarantee, LifeArc has no shareholders. Instead, it is required by company law to have Members who act as nominal guarantors in the event that the company should ever be wound up. Membership is an unpaid position. Members are entitled to vote at our annual general meeting, where accounts are approved and Trustees are elected.

Members have a constitutional role at the heart of the charity, as they decide on any changes to the LifeArc constitution and on the powers of the directors. All the functions of LifeArc within its constitution and achievement of its charitable objectives are governed and carried out by the Board of Directors acting as Trustees of LifeArc.

Trustees

Our Trustees are appointed from the Members. LifeArc's Board is comprised of 11 Trustees who are also Members of the charity and directors of the charitable company. It is chaired by Dr John Stageman.

Trustees are recommended by the Nominations Committee. They have broad and varied backgrounds, bringing to LifeArc the diverse range of skills the charity requires: from biomedical sciences, investment fund management, charities, finance and law and medicine.

The Trustees are appointed for a renewable term of four years and are eligible to stand for re-election.

All Trustees are offered an induction programme meeting with the Executive Management Team to discuss all areas of the business. A Trustee Induction Pack is also given to all Trustees to familiarise them with the charity's objects, with their duties, with key guidance from the Charity Commission and with their statutory obligations.

Committees of the Board

The Board of Trustees delegates oversight and assurance for key business functions to the five dedicated Board committees. Most Trustees serve on one or more committees.

The committees can co-opt non-members to join a Board committee, to provide additional expertise. Non-Trustee members of committees are indicated on the committee reports, on pages 32 to 36.

Conflicts of interest

LifeArc's policy on conflicts of interest applies to Trustees and employees alike. A register of Trustees' and Executives' interests is reviewed at each Board meeting and all employees complete a 'conflicts disclosure form' annually.

Completed forms are reviewed by the Company Secretary in order to identify and manage any areas of concern. The Board of Trustees has elected not to publish the registers of gifts, hospitality and interests owing to potential data protection and data privacy implications.

Trustees are not remunerated for their role at LifeArc. They are paid out-of-pocket expenses along with other expenses paid directly by the charity (see p50).

Management Committee

Executive Management Team

The Executive Management Team is responsible for the day-to-day running of the charity under authority delegated by the Board of Trustees. The team, under the leadership of the CEO, proposes to the Board where the charity should invest its time, money and expertise. It reviews strategic changes to the organisation's activities prior to submission to the Board or committees. It is also responsible for developing the financial and operational plans for Board approval and monitoring financial performance.

Melanie Lee
Chief Executive Officer

Edward Bliss
General Counsel & Company Secretary

Justin Bryans
Executive Director, Drug Discovery

Michael Dalrymple
Executive Director, Diagnostics and Science Foresight

Andrew Farquharson
Executive Director, Technology Transfer and Business Development

Fiona French
Executive Director, Human Resources (interim)

Andrew Mercieca
Chief Financial Officer

Board and Committee attendance

	Board of Trustees	ARMC	IMC	Sci Comm	Nom Comm	Rem Comm
John Stageman	5 (5)			2 (3)	3 (3)	2 (2)
Paul Mussenden	4 (5)	4 (4)	5 (5)			2 (2)
Peter Keen	5 (5)	4 (4)	5 (5)		3 (3)	
Les Hughes	5 (5)			3 (3)		
Mike Romanos	5 (5)			3 (3)		
Steve Visscher	5 (5)	0 (3)	0 (5)			
Aisling Burnand	4 (5)				2 (2)	
Jessica Mann (resigned 2 September 2019)	3 (5)			0 (3)		
Daniel Morgan	5 (5)					
Declan Mulkeen	5 (5)					
Annette Doherty (resigned 30 November 2018)	1 (2)			1 (2)		
Sally Burtles	5 (5)			2 (3)		2 (2)
Co-opted members						
Claire-Marie O'Grady (resigned 21 February 2019)		3 (3)	3 (4)			
Simon Gibson			4 (5)			

First number indicates number of meetings attended.

Second number in the parentheses () indicates total number of meetings where attendance was possible.

Audit and Risk Management Committee Report

Paul Mussenden
Audit and Risk Management Committee Chair

Committee membership

Member	Meetings attended
Paul Mussenden (Chair)	●●●●
Peter Keen	●●●●
Steve Visscher[1]	○○○–
Claire-Marie O'Grady[2] (Co-opted)	●●●–

1. Resigned 17 December 2018
2. Resigned 21 February 2019Incoming: Daniel Morgan, appointed 29 March 2019

What we did in 2019

- Oversaw the process to monetise the royalty stream rights to *Keytruda*.
- Reviewed the financial statements and recommended approval to the Board.
- Approved the 2018/2019 budget.
- Assessed the performance and independence of the internal audit and external audit functions.
- Reviewed the risk and assurance mapping and associated risk appetite statements.
- Agreed the approach and timescales for the evolution of risk management programme.
- Monitored the completion of internal audits and implementation of recommendations.
- Monitored the assessment of compliance with Charity Governance Code.
- Reviewed counterparty limits.

Key areas of focus for remainder of 2019

- Project development portfolio governance and reporting to the Board.
- Continuing the development of the risk management policy and framework to ensure good risk management is embedded in all of LifeArc's operations and as part of its culture, as well as forming an integral part of the strategy discussion.

Key: ● Attended ○ Not attended – Not applicable

As Chair of the Audit and Risk Management Committee, I am pleased to present our report for the year ended 31 March 2019.

The ARMC, which meets at least quarterly, provides assurance to the Board of Trustees on key issues relating to financial planning, reporting, internal control, risk management, LifeArc governance processes and other related matters. The committee approves the appointment of the internal and external auditors, reviews the management accounts, provides oversight of the budget process, and scrutinises the annual accounts and approves the internal audit programme.

In addition, it regularly receives reports from the internal auditors on the level of assurance on both the design and the effectiveness of the controls and processes in place for each audited area. Internal audit, together with risk management oversight, are used as tools to not only verify the adequacy of the control and assurance framework but also to support the development and maturation of LifeArc's various functions. A broad range of areas were audited over the year including HR and payroll; IT and cyber security; project and change management; health and safety; and key financial processes. Audit recommendations and follow-up are tracked to completion by the committee.

The CEO, CFO, General Counsel and Company Secretary, and other individuals with oversight responsibility for risk, and representatives from the internal and external audit attend the meetings.

The ARMC continues to focus on the development of robust assurance frameworks to support the delivery of LifeArc's strategy and ensure good governance is embedded in all we do. The Committee continues to review evolving best governance practice and develop LifeArc's approach as the breadth and complexity of the activities undertaken by the charity continue to grow.

Key achievements

A key achievement for LifeArc has been the successful mitigation of our key financial sustainability risk, through the monetisation of the *Keytruda* royalty stream.

In recognition of the additional responsibility that the Investment Management Committee (IMC) would assume following the monetisation, the ARMC and the Board identified a need to change the reporting of the IMC from being a sub-committee of the ARMC to become a direct committee of the Board. This came into effect from 29 March 2019.

With this now complete, the ARMC is focused for the short term on further embedding risk management at all levels of the organisation. We will support the Executive Management Team in the implementation of an enduring risk management framework such that senior management are able to demonstrate that the risks are being managed effectively in accordance with the strategic pillars and the agreed risk appetite.

The recently appointed risk manager is supporting the Executive Management Team, including providing relevant training in the principles of risk management. This role has the responsibility for further embedding risk management and building a risk culture that will support the anticipated growth of the charity.

A further important area of ongoing focus of the ARMC will be to oversee the work to provide visibility of all project development programmes to the Executive and to the Board to ensure alignment with, and a clear link to, the strategy and effective governance supporting the utilisation of cash invested in the range of development projects comprising LifeArc's product portfolio.

The committee has undergone a number of personnel changes this year. Both Claire-Marie O'Grady and Steve Visscher resigned from the committee, while on 29 March 2019 Dan Morgan, an existing Trustee, joined.

I would like to take this opportunity to thank all the ARMC members, and John, for their support and input throughout the year.

Paul Mussenden
Audit and Risk Management Committee Chair

Scientific Commitee Report

Les Hughes
Scientific Committee Chair

Committee membership

Member	Meetings attended
Les Hughes (Chair)	● ● ●
Mike Romanos	● ● ●
Sally Burtles	● ○ ●
Jessica Mann	○ ○ ○
John Stageman	○ ● ○
Annette Doherty[1]	● ○ —

1. Resigned 30 April 2018

What we did in 2019

— Appraised and approved key operational aspects of project selection and portfolio management for both therapeutics and diagnostics.

— Reviewed progress on major collaborative projects including those with Tetragenetics, Ono/CRUK and Biocartis.

— Reviewed and approved the CDD Operational Plan for the period 2018-2021.

— Appraised a proposal to access Kymab's antibody platform to upgrade CTD's capabilities.

— Reviewed and approved a biomarker initiative with the Medicines Discovery Catapult.

Activities for remainder of 2019

— Ongoing review of portfolio progress across therapeutics and diagnostics.

— Progress review on internalisation of the Kymab platform.

— Reviewing progress of strategy development activity.

As Chair of the Science Committee, I am pleased to report that it has been a successful year.

The committee provides oversight and assurance to the Board of the development, implementation and effective delivery of the charity's research activities. In particular, the committee considers the quality, breadth and balance of the CTD and CDD portfolios.

This year, the committee has considered the portfolio with special focus on:

— risk (including scientific, financial and commercial) against our appetite for risk;

— drug discovery platforms;

— diagnostic molecular platforms.

The committee was closely involved in considering and reviewing the proposed agreement with Kymab, and the relevant contribution this platform would bring to LifeArc activities. We were pleased to recommend the investment.

The committee will now be following closely the progress to include the platform within our activity, and in compliance with the terms of the agreement.

Other priorities for the committee in 2019 will be advising on the scientific aspects of the areas for strategic review being led by the Executive Management Team. The purpose is to underpin decisions relating to the future scientific strategy for LifeArc.

The committee will also review work to evolve the portfolio management, which will expand the projects followed to incorporate other areas including projects supported by the Philanthropic Fund, and ensure that the potential impact for patients is being adequately considered in decision making.

I would like to take the opportunity now to express my thanks to the members of the committee, without whose dedication and knowledge the committee would not be able to function.

Les Hughes
Scientific Committee Chair

Key: ● Attended ○ Not attended — Not applicable

Investment Management Committee Report

Peter Keen
Investment Management Committee Chair

Committee membership

Member	Meetings attended
Peter Keen (Chair)	● ● ● ● ●
Paul Mussenden	● ● ● ● ●
Steve Visscher	○ ○ ○ ○ ○
Claire-Marie O'Grady (Co-opted)[1]	● ● ● ○ —
Simon Gibson (Co-opted)	○ ● ● ● ●

1. Resigned 21 February 2019

What we did in 2018

- Reviewed the performance of our external Investment Managers quarterly against their performance benchmarks and the overall long-term investment target.
- Reviewed the performance of our external Investment Managers on the two-year anniversary of the creation of our investment portfolio
- Reviewed the options for our committee structure and investment strategy with a number of external advisers in anticipation of the completion of the monetisation of LifeArc's royalty interests from *Keytruda*.
- Reviewed the amount and structure of the foreign exchange transaction to convert the proceeds from monetisation from US dollars to pound sterling.

What we will do in 2019

- Convert monetisation proceeds into pound sterling in line with agreed structure.
- Place proceeds from the second *Keytruda* monetisation in May 2019 in low risk money market investments to preserve the capital value and generate a modest return until the new investment strategy is in place.
- Appoint a new Chair of the IMC with the relevant skills and experience to establish and manage a >£1bn investment fund in the charitable sector.
- Develop a new investment strategy to successfully manage a long-term endowment fund in excess of £1bn.

I am pleased to present our report for the year ended 31 March 2019. The report highlights not only the key activities during the financial year, but also the impact on our structure and activities in the future as a consequence of the monetisation of LifeArc's *Keytruda* royalty stream which was completed in May 2019, generating $1.297bn.

Throughout the financial year the Investment Management Committee (IMC) operated as a sub-committee of the Audit and Risk Management Committee with the primary responsibility to review the performance of our external investment managers against their performance benchmarks and the overall long-term investment target agreed with the Board of LifeArc.

In addition, we review all financial investment activities of LifeArc and provide advice and guidance to the Board accordingly. This includes developing and recommending the investment return targets and developing an appropriate investment policy to support the organisation in fulfilling its purpose and goals. The committee meets quarterly but there was an additional meeting in January 2019.

LifeArc investment policy

Following the first *Keytruda* royalty monetisation in 2016-17 our investments were restructured with £60m each being invested with both Rothschild & Co and Cazenove Capital in a long-term portfolio, and a further £40m with Rothschild in a short-term portfolio to fund LifeArc's day-to-day operations.

A review was undertaken at that time by the committee with the benefit of external advice to establish an appropriate long-term performance objective against which the managers' performance would be monitored. A recommendation was made to the Board, which concluded that the appropriate objective would be the Retail Price Index (RPI) + 3%. In addition, short-term performance is measured against relevant ARC and MSCI indices.

As permitted by our Articles of Association, the Trustees have given the investment managers discretion to manage those parts of the portfolio for which they are responsible with the objective of delivering the targeted returns:

- Rothschild and Cazenove long-term portfolios manage a long-term investment portfolio focused on equities, fixed interest securities, cash and alternatives with a targeted return of RPI + 3% net of fees.
- Rothschild short-term portfolio manages a short-term investment portfolio focused on fixed interest securities with a targeted return of three-month UK LIBOR.

Key: ● Attended ○ Not attended — Not applicable

Principal activities of the committee

During the financial year, the committee met four times with the primary objective being to review the existing investment performance of our fund managers Rothschild and Cazenove.

Overall, the performance of the long-term investment portfolio for the year ended 31 March 2019 generated a return of 7% which was ahead of our targeted return of RPI +3%, being 5.44%.

In January 2019, the committee held an additional meeting to review the performance of our fund managers over the first two years from having been given the investment mandate. The committee concluded that their performance was satisfactory and did not feel it necessary to make any change to the existing arrangements. Additionally, a review was held with the support of an external adviser to consider any revisions to the investment strategy and the committee's structure following the completion of the monetisation of LifeArc's royalty interests from *Keytruda*.

At this meeting, the committee considered the options available to LifeArc to invest and manage the funds, and it was agreed that:

- The IMC would be reconstituted as a sub-committee of the Board (until 29 March it reported to the ARMC).
- The membership of the committee be expanded to include at least two new members with specific experience at establishing the required infrastructure and managing long-term endowment funds in excess of £1bn. It was envisaged that one of the new members would serve as a Trustee on the Board and take over as Chair of the IMC.
- Any decisions be deferred on a new investment strategy including relevant structure and personnel until the recruitment and appointment of the new IMC Chair was concluded.

Following the second *Keytruda* monetisation in May 2019, the proceeds were invested in low risk money market instruments aimed at preserving the capital value and generating a modest return through income with both Rothschild and Goldman Sachs until the new IMC Chair is in post, and the new investment strategy is confirmed. The committee did however review the amount and structure of the foreign exchange transaction to convert the proceeds from monetisation from US dollars to pound sterling.

I am also pleased to say that following an externally managed recruitment process, my successor as Chair of the IMC was identified and on 15 August the Trustees ratified the appointment of David Zahn as a new Trustee and Chair of the IMC. David comes to us with a wealth of experience from both senior roles within asset management and voluntary work on several charitable boards including being IMC Chair of The Health Foundation with £980m of investments under management at December 2018.

I look forward to remaining on the committee and working with David and continuing to help LifeArc establish an endowment fund with a structure, strategy and objectives appropriate for the significant opportunity that the *Keytruda* monetisation has given us.

Peter Keen
Investment Management Committee Chair

Nominations Committee Report

John Stageman
Nominations Committee Chair

Committee membership

Member	Meetings attended
John Stageman	● ● ●
Peter Keen	● ● ●
Aisling Burnand[1]	— ●

1. Joined 28 June 2018

What we did in 2018-19

— The Committee identified a need to recruit a Trustee to lead on our investment strategy and implemented a recruitment process.

— Initiated an independent review of Board performance.

What we will do in 2019

— Review the read out from the Board performance review and work to implement its recommendations.

I am pleased to report on the progress of the Nominations Committee for the financial year.

The Nominations Committee is responsible for developing and maintaining active succession planning for the Board and Executive. It is also responsible for the oversight of Board performance and evaluation.

Trustees are appointed for a renewable term of four years. In the year, the Nominations Committee reviewed the Trustee appointments, the balance of skills and experience required on the Board, and the tenure and succession for Trustees. This year the committee met three times.

It identified the need to recruit a new Trustee to chair the Investment Management Committee and began that process.

The Charity Governance Code recommends that trustees serve no more than nine years on a Board of Trustees. Declan Mulkeen has served as a Trustee for 10 years. The committee therefore carefully considered Dr Mulkeen's appointment as a Trustee, and agreed to approve his continued appointment, in recognition of his close association with our key partner, the MRC, his ongoing contribution to the Board and his unique mix of highly applicable skills in the medical research and translation sector.

At the end of the financial year, the committee also initiated an independent review of Board performance. The recommendations arrived post the reporting period, and the Board is considering the recommendations.

I would like to thank my committee members for their support in the year.

John Stageman
Nominations Committee Chair

Key: ● Attended ○ Not attended — Not applicable

Remuneration Committee Report

John Stageman
Remuneration Committee Chair

Committee membership

Member	Meetings attended
John Stageman	● ●
Paul Mussenden	● ●
Sally Burtles	● ●

What we did in 2018-19

— Reviewed LifeArc reward strategy.

— Considered industry salary and reward benchmark.

What we will do in 2019

— Evaluate progress of leadership development programme.

— Review LifeArc reward strategy.

Key: ● Attended ○ Not attended — Not applicable

Responsibilities of the Trustees statement

As Chair of the Remuneration Committee, it has been a year of careful consideration as we consider the impact of monetisation.

The Remuneration Committee is responsible for matters relating to the remuneration policy and the annual review of remuneration, in particular with regard to senior executives. The committee met twice in the financial year.

The Trustees are mindful of their responsibilities for ensuring LifeArc achieves its strategic objectives, especially with the greater opportunities that monetisation provides.

LifeArc's remuneration policy is designed to support the organisation's strategy in the context of its charitable objects. Central to this is the need to ensure that we can attract, retain and motivate the calibre of talent required for the charity to achieve its strategic objectives. We work towards the guiding principles that we:

- offer a total reward package that is competitive in the relevant talent market, but also reflective of LifeArc's charitable status
- reward performance that delivers on the charity's goals
- encourage employees to build upon their capabilities and share their knowledge with others
- ensure benefits are flexible and attractive to our employee population
- are fair, non-discriminatory, consistent and transparent in the remuneration award process.

I would like to thank my colleagues Paul and Sally for their support on this committee over the year.

John Stageman
Remuneration Committee Chair

Trustees' Annual Report 31 March 2019

Statement of Trustees' responsibilities

The Trustees (who are the directors for the purpose of company law) are responsible for preparing the Trustees' report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Practice).

Company law requires Trustees to prepare financial statements, for each financial year, which give a true and fair view of the state of affairs of the charitable company and of its incoming resources and application of those resources, including its income and expenditure for the period.

In preparing these financial statements the Trustees are required to:

- select suitable accounting policies and then apply them consistently
- observe the methods and principles in the Charities' Statement of Recommended Practice (SORP)
- make judgements and estimates that are reasonable and prudent
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements
- prepare the financial statements on a going concern basis unless it is inappropriate to presume that LifeArc will continue in operation.

The Members of the Board are responsible for keeping proper accounting records that are sufficient to show and to explain the charitable company's transactions and to disclose, with reasonable accuracy, at any time, the financial position of the charitable company and to ensure that the financial statements comply with the Companies Act 2006.

The Trustees are also responsible for safeguarding the assets of LifeArc and for taking reasonable steps for the prevention and detection of fraud or other irregularities. The Board met five times during the reporting period (28 June 2018, 28 September 2018, 17 December 2018, 27 February 2019 (Strategy Day), 29 March 2019). and also at the AGM on 9 November 2018.

This Annual Report was approved by the LifeArc Board on 26 September 2019 and signed on its behalf by

Dr John Stageman OBE
Chairman

Financial statements

2018/2019

Independent auditor's report to the members of LifeArc

Opinion

We have audited the financial statements of LifeArc (the 'charitable company') for the year ended 31 March 2019 which comprise the Consolidated Statement of Financial Activities, the Consolidated and parent company balance sheets, the Consolidated Cash Flow Statement and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 – The Financial Reporting Standard applicable in the UK and Republic of Ireland (United Kingdom Generally Accepted Accounting Practice).

This report is made solely to the charitable company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006, and to the charitable company's Trustees, as a body, in accordance with Regulation 10 of the Charities Accounts (Scotland) Regulations 2006. Our audit work has been undertaken so that we might state to the charitable company's members and Trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charitable company, the charitable company's members as a body and the charitable company's Trustees as a body, for our audit work, for this report, or for the opinions we have formed.

In our opinion the financial statements:

— give a true and fair view of the state of the charitable company's affairs as at 31 March 2019, and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;

— have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and

— have been prepared in accordance with the requirements of the Companies Act 2006, the Charities and Trustee Investment (Scotland) Act 2005 and regulation 8 of the Charities Accounts (Scotland) Regulations 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the charitable company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

— the Trustees' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or

— the Trustees have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the charitable company's ability to continue to adopt the going concern basis of accounting for a period of at least 12 months from the date when the financial statements are authorised for issue.

Other information

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

We have nothing to report in this regard.

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 Trustees' Annual Report (incorporating 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 Trustees' Annual Report (incorporating the strategic report and the directors' report) has been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In the light of our knowledge and understanding of the charitable company and its environment obtained in the course of the audit, we have not identified material misstatements in the Trustees' Annual Report (incorporating the strategic report and the directors' report).

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 and the Charities Accounts (Scotland) Regulations 2006 require us to report to you if, in our opinion:

— adequate and proper accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or

— the financial statements are not in agreement with the accounting records and returns; or

— certain disclosures of directors' remuneration specified by law are not made; or

— we have not received all the information and explanations we require for our audit.

Responsibilities of Trustees

As explained more fully in the Trustees' responsibilities statement, the Trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Auditor's responsibilities for the audit of the financial statements

We have been appointed as auditor under section 44(1)(c) of the Charities and Trustee Investment (Scotland) Act 2005 and under the Companies Act 2006 and report in accordance with regulations made under those Acts.

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: http://www.frc.org.uk/auditors responsibilities. This description forms part of our auditor's report.

Alastair Duke
(Senior Statutory Auditor)

For and on behalf of Statutory Auditor
PKF Littlejohn LLP
15 Westferry Circus
Canary Wharf
London E14 4HD

15 October 2019

PKF Littlejohn LLP is eligible for appointment as auditor of the charity by virtue of its eligibility for appointment as auditor of a company under section 1212 of the Companies Act 2006

Consolidated statement of financial activities

For the year ended 31 March 2019

	Notes	Unrestricted funds £000s	Restricted funds £000s	Total funds 2019 £000s	Total funds 2018 £000s
Income and endowments from:					
Charitable activities	1	51,667	602	52,269	23,097
Trading activities	2	52	–	52	–
Investments	3	2,495	–	2,495	2,398
Other income	4	363	–	363	355
Total income and endowments		54,577	602	55,179	25,850
Expenditure on:					
Raising funds	5	558	–	558	549
Charitable activities	6	29,404	602	30,006	25,688
Provisions	19	57	–	57	312
Total expenditure		30,019	602	30,621	26,549
Net gains on investments	14/15	8,134	–	8,134	228
Net income /(expenditure)		32,692	–	32,692	(471)
Net movement in funds	21	32,692	–	32,692	(471)
Reconciliation of funds:					
Total funds brought forward	21	174,501	–	174,501	174,972
Cash flow hedge reserve	21	(93)	–	(93)	758
Total funds carried forward	**21**	207,100	–	**207,100**	**175,259**

All income and expenditure derives from continuing activities.

The statement of financial activities includes all gains and losses recognised during the year.

Full comparative figures are presented in note 31.

The accounting policies and notes on pages 45 to 60 form part of the financial statements.

Balance sheets

As at 31 March 2019
Company number: 2698321

	Note	Consolidated 2019 £000s	Consolidated 2018 £000s	LifeArc 2019 £000s	LifeArc 2018 £000s
FIXED ASSETS					
Tangible fixed assets	13	10,952	10,929	10,952	10,929
Investments	14	148,677	125,300	148,687	125,300
		159,629	136,229	159,639	136,229
CURRENT ASSETS					
Investments	15	5,697	21,689	5,697	21,689
Debtors	16	28,602	19,462	28,592	19,462
Cash at bank and in hand		19,120	3,052	19,110	3,052
		53,419	44,203	53,399	44,203
Creditors: amounts falling due within one year	17	(5,313)	(4,074)	(5,303)	(4,074)
Net current assets		48,106	40,129	48,096	40,129
Total assets less current liabilities		207,735	176,358	207,735	176,358
Provision for liabilities	19	(635)	(1,099)	(635)	(1,099)
Net assets		**207,100**	**175,259**	**207,100**	**175,259**
CHARITY FUNDS					
Unrestricted funds	21	177,100	145,259	177,100	145,259
Designated funds	21	30,000	30,000	30,000	30,000
Total charity funds		**207,100**	**175,259**	**207,100**	**175,259**

The accounting policies and notes on pages 45 to 60 form part of the financial statements.

The financial statements were approved and authorised for issue by the Board on 26 September 2019.

Signed on behalf of the Board of Trustees.

Dr John Stageman OBE
Chairman

Consolidated statement of cash flows

Year ended 31 March 2019

	Note	2019 £000s	2018 £000s
Cash flow from operating activities	24	15,080	(11,267)
Net cash flow provided by / (used in) operating activities		15,080	(11,267)
Cash flow from investing activities			
Payments to acquire tangible fixed assets		(2,356)	(2,454)
Receipts from sale of fixed assets		3	–
Payments to acquire investments		(36,981)	(48,683)
Receipts from sale of investments		24,084	47,404
Dividends, interest and rents received from investments		2,495	2,398
Forward contract currency hedge		59	529
Decrease / (increase) in current asset investments		15,992	14,386
Decrease / (increase) in cash held for investment		(2,308)	150
Net cash flow provided by / (used in) investing activities		988	13,730
Change in cash and cash equivalents in the year		16,068	2,463
Cash and cash equivalents at 1 April		3,052	589
Cash and cash equivalents at 31 March		**19,120**	**3,052**
Cash and cash equivalents consist of:			
Cash at bank and in hand		19,120	3,052
Short-term deposits		–	–
Cash and cash equivalents at 31 March		**19,120**	**3,052**

The accounting policies and notes on pages 45 to 60 form part of the financial statements.

Accounting policies

For the year ended 31 March 2019

General information and basis of preparation
LifeArc is a charitable company limited by guarantee in the United Kingdom. In the event of the charity being wound up, the liability in respect of the guarantee is limited to £1 per member of the charity. The address of the registered office is given on the back cover of these financial statements. The nature of the charity's operations and principal activities are progressing early stage science from academic research towards clinical benefit, working with industry and academia to accelerate the delivery of diagnostic tests to patients and providing intellectual property (IP) management and commercialisation services to medical research charities and organisations.

The charity constitutes a public benefit entity as defined by FRS 102. The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice (SORP) applicable to charities preparing their accounts in accordance with the financial reporting standard applicable in the United Kingdom and Republic of Ireland (FRS 102), the Charities Act 2011, the Companies Act 2006 and UK generally accepted practice as it applies from 1 January 2015.

The financial statements are prepared on a going concern basis under the historical cost convention. The financial statements are prepared in sterling, which is the functional currency of the charity, and rounded to the nearest £000.

The significant accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all years presented unless otherwise stated.

Going concern
The Trustees consider that the use of the going concern basis is appropriate because there are no material uncertainties relating to events or conditions that may cast significant doubt about the ability of the charity to continue as a going concern, and there is reasonable expectation that the charity has adequate reserves to continue in operational existence for the foreseeable future.

Incoming resources
Incoming resources from charitable activities comprise the following:

— Research contract and development income recognised according to the terms of the contract upon completion of agreed milestones, royalty income recognised on an accruals basis.

— Technology transfer services fees receivable from the Medical Research Council (MRC) which are invoiced in line with the service level agreement.

— Grant income recognised when LifeArc has the right to receive the money. Grants received which are restricted by the donor for performance in future accounting periods are deferred.

— Rental income from researchers occupying LifeArc facilities. Income recognised represents amounts invoiced in the year.

Incoming resources from trading activities consist of:

— The provision of accounting, human resource, legal and meeting room services.

Incoming resources from investments comprise the following:

— Investment income together with recoverable tax, recognised on an accruals basis.

Resources expended
All expenditure is accounted for on an accruals basis and has been classified under headings that aggregate all costs related to the category. Where costs cannot be directly attributed to particular headings, they have been allocated to activities on a basis consistent with the use of resources.

— Costs of raising funds are the costs of managing investments for both income generation and capital maintenance and include investment manager fees relating to the costs of the external management of investments of LifeArc.

— charitable activities comprise expenditure on the direct charitable activities of LifeArc.

— provisions comprise estimated movement in obligations as at the balance sheet date as a result of a past event.

Fund accounting
The unrestricted fund is a general unrestricted fund which is available for use at the discretion of the Trustees in furtherance of the general objectives of LifeArc and which has not been designated for other purposes.

Designated funds are amounts set aside by the Trustees for specific purposes.

The restricted funds are grants received in the year which are subject to specific restrictions imposed by the donor.

Accounting policies continued

Support cost allocation
Support costs are those that assist the work of the charity but do not directly represent charitable activities and constitute corporate resource and governance costs. They are incurred directly in support of expenditure on the activities of the charity. Corporate resource and governance costs have been allocated to activities on an employee headcount basis.

Accounting for tangible fixed assets
Fixed assets with a cost in excess of £5,000 are recognised at cost and depreciated according to the disclosed policy.

Depreciation of tangible fixed assets
Depreciation is provided on a straight-line basis so as to write off the cost or valuation of tangible fixed assets less estimated residual value over their estimated useful economic lives, which are as follows:

- long leasehold land and buildings – over the period of the lease or useful economic life, whichever is the shorter;
- plant and machinery – 10 years;
- laboratory equipment – 5-10 years;
- furniture, fixtures and fittings and office equipment – 5 years;
- computers – 3-5 years;
- leasehold improvements – 10 years; and
- IT infrastructure – 10 years.

Fixed asset investments
Investments are recorded at cost and are stated at fair value at the balance sheet date. The unrealised gains and losses arising as a result are included in the Statement of Financial Activities (SOFA) together with any realised gains and losses on any investments disposed of in the year.

Financial assets, including investments in equity instruments which are not subsidiaries, are initially measured at fair value, which is normally the transaction price. Such assets are subsequently carried, where possible, at fair value and the changes in value are recognised in the Statement of Financial Activities. Assets are considered for indications of impairment, with any impairment then recognised in the Statement of Financial Activities.

Current asset investments
Investments are stated at market value at the balance sheet date. The unrealised gains and losses arising as a result are included in the SOFA together with any realised gains and losses on any disposals in the year.

Operating leases
Rentals paid under operating leases are charged to the statement of financial activities on a straight-line basis over the terms of the lease.

Where there is a rent-free period the total cost of the lease is recognised over the term on a straight-line basis.

Foreign currencies
Monetary assets and liabilities in foreign currencies are translated into sterling at the rate of exchange ruling at the balance sheet date.

Transactions which have been concluded prior to the balance sheet date are translated into sterling at the monthly rate of exchange ruling at the date of the transaction. Exchange gains and losses arising in the normal course of operations are included in the SOFA.

Financial instruments and hedging activities
LifeArc uses forward foreign currency contracts to manage its exposure to fluctuations in foreign exchange rates. These instruments are initially recognised at fair value on the trade date and are subsequently remeasured at their fair value at the end of the reporting date.

All hedging instruments will be recognised on the balance sheet at fair value, and all changes in value of the hedging instrument will be recognised in the cash flow hedge reserve.

Gains and losses are released to the SOFA once the hedge is realised.

Employee benefits
When employees have rendered service to the charity, short-term employee benefits to which the employees are entitled are recognised at the undiscounted amount expected to be paid in exchange for that service.

Pension costs
The charitable company operates a defined contributions pension scheme which is open to all employees. The funds of the scheme are administered by a third party and are separate from the charitable company. The pension charge represents contributions payable by the charitable company for the year. The charitable company's liability is limited to the amount of the contributions.

Impairment reviews
A review of the impairment of fixed asset investments is carried out if events or changes in circumstances indicate that the carrying amount not be recoverable.

Material items
Material items are items which derive from events or transactions that fall within the ordinary activities of the charitable company and which individually need to be disclosed by virtue of their size or incidence if the financial statements are to give a true and fair view. The separate reporting of material items helps to provide a better indication of the charitable company's underlying business performance.

Taxation
LifeArc is a registered charity and is generally exempt from corporation tax but not from value added tax (VAT). Irrecoverable VAT is included with the cost of those items to which it relates.

Provisions
A provision is made for a liability in the financial statements where LifeArc has a present obligation as a result of a past event, it is probable that a transfer of economic benefits will be required to settle the liability and a reliable estimate can be made of the obligation.

Basis of consolidation
The consolidated financial statements incorporate the results of LifeArc ('the charity') and its subsidiary undertaking LifeArc Innovations Limited. The consolidated entity is referred to as the 'group'. No separate SOFA or Cash flow Statement has been prepared for the charity as permitted by section 408 of the Companies Act 2006 and FRS 102 respectively.

Notes to the financial statements

For the year ended 31 March 2019

1 Income from charitable activities – Group and ultimate parent

	2019 £000s	2018 £000s
Research contracts and royalty income	50,068	20,406
IP management and technology transfer services	1,599	1,750
Grants	602	941
	52,269	23,097

2 Trading activities

LifeArc Innovations Limited

The principal activity of this company is non-charitable trading for the charity. The company pays all of its post-tax income to the charity as a qualifying donation under gift aid arrangements.

Its trading results, extracted from its audited financial statements, which are included in the Unrestricted funds column in the SOFA, were:

		2019 £000s
Turnover		52
Gross profit		52
Administration expenses		–
Operating profit		52
Profits on ordinary activities before taxation		52
Qualifying donation to the charity		(52)
Profit for the financial year		–
Total recognised gains and losses relating to the period	–	–

Amounts not reflected in trading income and trading expenses are included within the relevant unrestricted categories in the SOFA.

The net assets of the company at the period end were £10,000.

3 Income from investments

	2019 £000s	2018 £000s
Dividends – equities	1,973	1,686
Interest – fixed interest securities	461	704
Interest – deposits	61	8
	2,495	2,398

Notes to the financial statements continued

4 Other income

	2019 £000s	2018 £000s
Miscellaneous	363	355
	363	355

5 Raising funds

	2019 £000s	2018 £000s
Investment manager fees	558	549
	558	549

6 Analysis of expenditure on charitable activities

	Activities undertaken directly £000s	Support costs £000s	2019 £000s	2018 £000s
Early-stage drug discovery	14,382	3,026	17,408	16,207
Diagnostics development	2,228	726	2,954	2,221
IP, licensing and business development	6,406	1,704	8,110	6,807
Venture and seed funds	1,362	172	1,534	453
	24,378	5,628	30,006	25,688

7 Allocation of support costs

	Governance £000s	Corporate resources £000s	2019 £000s	2018 £000s
Early-stage drug discovery	115	2,911	3,026	2,788
Diagnostics discovery	31	695	726	504
IP, licensing, business development and corporate partnerships	315	1,389	1,704	1,599
Funds	6	166	172	–
	467	5,161	5,628	4,891

8 Governance costs

	2019 £000s	2018 £000s
Staff costs	194	181
Direct costs		
Other legal and professional charges	51	24
Audit fees	26	26
Other fees	40	42
Bank charges	6	6
Insurance	114	121
Other governance costs	36	116
	467	516

9 Net income for the year – group and ultimate parent

Net income is stated after charging / (crediting):

	2019 £000s	2018 £000s
Depreciation of tangible fixed assets	2,283	2,026
Operating leases – property	1,112	1,103
Operating leases – equipment	–	2
Auditor's remuneration	26	26
Fees payable to internal auditor	49	42
Net losses/(gains) on foreign exchange	(672)	200

10 Auditor's remuneration – group and ultimate parent

	2019 £000s	2018 £000s
Fees payable to the charity's auditor for the audit of the charity's annual accounts	25	25
Fees payable to the charity's auditor for other services:		
Other services	1	1
	26	26

Notes to the financial statements continued

11 Trustees' and key management personnel remuneration and expenses – group and ultimate parent

The Trustees neither received nor waived any remuneration during the year (2018: £Nil).

In respect of acting as a Director for SpringWorks Therapeutics on behalf of LifeArc, during the year Peter Keen invoiced LifeArc £13k for consultancy services (2018 – £7k).

The total amount of employee benefits received by key management personnel during the year was £1,438k (2018 – £1,310k). The Trustees consider its key management personnel to compromise the Chief Executive Officer and Executive Management Team.

The following Trustees' expenses were reimbursed or paid directly on their behalf during the year:

	2019 No. Trustees	2018 No. Trustees	2019 £000s	2018 £000s
Travel and subsistence	7	8	11	19
	7	8	11	19

Included above is £Nil (2018 – £Nil) which has been paid directly to third parties.

12 Staff costs and employee benefits – group and ultimate parent

The average number of employees, analysed by function, was:

	2019	2018
Management	7	7
Research	94	85
Technology transfer	36	37
Administration	43	41
Agency / contract staff	4	2
	184	172

The total staff costs and employee benefits were as follows:

	2019 £000s	2018 £000s
Wages and salaries	10,188	9,377
Social security	1,104	984
Defined contribution pension costs	870	834
Agency / contract staff	286	162
	12,448	11,357

The number of employees who received total employee benefits (excluding employer pension costs) of more than £60,000 is as follows:

	2019	2018
£60,001 – £70,000	12	12
£70,001 – £80,000	12	15
£80,001 – £90,000	8	8
£90,001 – £100,000	6	5
£100,001 – £110,000	6	1
£130,001 – £140,000	1	–
£140,001 – £150,000	1	1
£160,001 – £170,000	1	2
£170,001 – £180,000	2	2
£180,001 – £190,000	1	1
£190,001 – £200,000	1	–
£300,001 – £310,000	–	1
	51	48

The pension contributions to the defined contribution scheme payable on behalf of 51 (2018 – 48) members of staff amounted to £409,940 (2018 – £406,613).

13 Tangible fixed assets – group and ultimate parent

	Assets under construction £000s	Leasehold improvements £000s	Laboratory equipment and plant £000s	Fixtures, fittings and computers £000s	Total £000s
COST					
At 1 April 2018	39	8,672	7,661	2,551	18,923
Additions	45	44	1,988	279	2,356
Disposals	–	–	(555)	(91)	(646)
Reclassification	(39)	–	–	39	–
At 31 March 2019	45	8,716	9,094	2,778	20,633
ACCUMULATED DEPRECIATION					
At 1 April 2018	–	1,880	4,950	1,164	7,994
Charge for year	–	840	1,023	420	2,283
Disposals	–	–	(545)	(51)	(596)
Reclassification	–	–	–	–	–
At 31 March 2019	–	2,720	5,428	1,533	9,681
NET BOOK VALUE					
At 31 March 2019	**45**	**5,996**	**3,666**	**1,245**	**10,952**
At 31 March 2018	39	6,792	2,711	1,387	10,929

LifeArc had no capital commitments at 31 March 2019 (2018 – £Nil).

Notes to the financial statements continued

14 Fixed asset investments

	Consolidated 2019 £000s	Consolidated 2018 £000s	LifeArc 2019 £000s	LifeArc 2018 £000s
Investment at cost	4,637	55	4,647	55
Unlisted investments held at fair value	10,320	289	10,320	289
Listed investments	133,720	124,956	133,720	124,956
	148,677	125,300	148,687	125,300

Included within investments at cost is £10k in relation to 100% of the shares in LifeArc Innovations Limited.

Unlisted investments held at fair value

	Seed Fund £000s	SpringWorks £000s	Total £000s
Fair value at 1 April 2018	–	289	289
Investments in the year	1,000	8,019	9,019
Revaluation gain in the year	–	1,012	1,012
Fair value at 31 March 2019	1,000	9,320	10,320

Listed investments – group and ultimate parent

	2019 £000s	2018 £000s
Market value at 1 April	122,543	121,142
Acquisitions	23,362	48,384
Sale proceeds	(24,084)	(47,439)
Forward contract currency hedge	(59)	(529)
Unrealised (loss) / gain	6,186	(201)
Realised (loss) / gain	1,065	1,220
Revaluation	(14)	(34)
Market value at 31 March	128,999	122,543
Historical cost at 31 March	119,389	119,615

Portfolio analysis

		2019 £000s	2018 £000s
Equities	within the UK	16,647	17,025
	overseas	68,521	57,425
Fixed interest securities	within the UK	18,422	19,622
	overseas	2,189	2,447
Alternative investment		23,220	26,024
		128,999	122,543
Cash		4,721	2,413
		133,720	124,956

Notes to the financial statements continued

15 Current asset investments – group and ultimate parent

	2019 £000s	2018 £000s
At 1 April	21,551	30,361
Net (withdrawal) / investment	(477)	(677)
Acquisitions	39,436	33,102
Sale proceeds	(55,223)	(41,110)
Realised gains / (losses)	(103)	(266)
Unrealised gains / (losses)	(27)	(525)
Interest received	481	697
Management fees	(23)	(31)
As at 31 March	5,615	21,551
Historical cost at 31 March	5,679	21,948

Portfolio analysis

	2019 £000s	2018 £000s
Fixed interest securities within the UK	3,115	13,512
Alternative investment	2,500	8,039
	5,615	21,551
Cash	82	138
	5,697	21,689

The fair value of listed investments is determined by reference to the quoted price for identical assets in an active market at the balance sheet date.

No short-term deposits were held at 31 March 2019 or at 31 March 2018.

16 Debtors

	Group 2019 £000s	Group 2018 £000s	LifeArc 2019 £000s	LifeArc 2018 £000s
Trade debtors	788	10,016	725	10,016
Interest receivable	36	222	36	222
Prepayments and accrued income	26,720	7,984	26,721	7,984
Tax debtor – VAT	714	98	714	98
Other debtors	437	384	489	384
Hedge (liability) / asset	(93)	758	(93)	758
	28,602	19,462	28,592	19,462

17 Creditors: amounts falling due within one year

	Group 2019 £000s	Group 2018 £000s	LifeArc 2019 £000s	LifeArc 2018 £000s
Trade creditors	1,626	765	1,626	765
Accruals	2,774	2,415	2,774	2,415
Other creditor	466	510	466	510
PAYE & NI creditor	437	384	437	384
Tax creditor – VAT	10	–	–	–
	5,313	4,074	5,303	4,074

Notes to the financial statements continued

18 Leases – group and ultimate parent

	2019 £000s	2018 £000s
Operating leases – lessee		
Total future minimum lease payments under non-cancellable operating leases are as follows:		
Not later than one year	1,319	1,193
Later than one and not later than five years	4,711	2,313
Later than five years	1,045	1,056
	7,075	4,562

19 Provisions for liabilities and charges – group and ultimate parent

	ATI provision £000s	Contractual payments £000s	Total £000s
At 1 April 2018	464	635	1,099
Additions during the year	57	–	57
Amounts charged against the provision	(521)	–	(521)
Unused amounts reversed	–	–	–
At 31 March 2019	–	635	635

The contractual payments provision relates to dilapidations for the Edinburgh site, the Lynton House site, and the Stevenage site.

The ATI provision related to the Awards to Inventors Scheme. Under the terms of this scheme a share of royalties is payable on the sales of certain drugs and funded by the receipt by LifeArc of royalties on those sales.

Charges to the SOFA resulting from provisions during the year amount to £57k, being £57k charge to ATI provision (2018 – £464k) of which £Nil was attributable to restricted funds.

20 Grant commitments

At 31 March 2019 LifeArc had made multi-year funding commitments from the Philanthropic Fund to Kings College London (KCL) £1.2m, University College London (UCL) £0.3m, and University of Oxford £0.4m.

It is expected that £0.6m (KCL £0.3m, UCL £0.2m, and University of Oxford £0.1m) will be paid within one year, with the balance £1.3m to be paid after more than one year.

21 Fund reconciliation – group and ultimate parent

	Balance at 1 April 2018	Income	Expenditure	Cash flow hedge reserve	Transfers	Gains / (losses)	Balance at 31 March 2019
Unrestricted	145,259	54,577	(30,019)	(851)	–	8,134	177,100
Restricted	–	602	(602)	–	–	–	–
Designated	30,000	–	–	–	–	–	30,000
	175,259	55,179	(30,621)	(851)	–	8,134	207,100

Forward foreign exchange contracts were entered into in 2017/18. During the year there was a loss of £851k (2018 – £758k gain) relating to the movements of sterling against US dollar as a result of the remaining forward foreign exchange contracts which is taken to the cash flow hedge reserves.

Fund descriptions
a) Unrestricted funds
The unrestricted fund is a general unrestricted fund which is available for use at the discretion of the Trustees in furtherance of the general objectives of LifeArc and which has not been designated for other purposes.

b) Restricted funds
The restricted funds are grants received in the year which are subject to specific restrictions imposed by the donor.

Grant income includes £602k (2018 – £941k) from Alzheimer’s Research UK (ARUK), GSK Services, and the European Commission Horizon 2020 programme.

c) Designated funds
The designated funds are specifically allocated for the Philanthropic Fund (£5m) and Seed Fund (£25m).

22 Analysis of net assets between funds

	Unrestricted funds £000s	Designated funds £000s	Total 2019 £000s	Total 2018 £000s
Fixed assets	129,629	30,000	159,629	136,229
Cash and current investments	24,817	–	24,817	24,741
Other current assets / liabilities	23,289	–	23,289	15,388
Provisions	(635)	–	(635)	(1,099)
	177,100	30,000	207,100	175,259

The designated fund includes £25m for the Seed Fund, and £5m for the Philanthropic Fund.

Notes to the financial statements continued

23 Financial instruments – foreign currency risk

Transactional foreign currency exposure arises from royalty income streams received from overseas. LifeArc hedges this exposure principally using forward foreign exchange contracts covering up to 50% out to 24 months. LifeArc is exposed to foreign exchange risk in relation to sterling against movements against the US dollar.

As at the balance sheet date the gross notional value in sterling terms of forward foreign exchange sell contracts amounted to £5,332,176 (2018 – £12,587,536).

Gains and losses in equity on forward exchange contracts at 31 March 2019 will be released to the Statement of Financial Activities at various dates over the following two months (2018 – 14 months) from the balance sheet date.

During the year a £100,136 gain (2018 – £48,909 gain) was taken to the SOFA as a result of forward exchange contracts.

The existing hedge at 31 March 2019 is for May 2019 at which point it is expected to be released to the SOFA.

24 Reconciliation of net (expenditure) / income to net cash flow from operating activities

	Group 2019 £000s	Group 2018 £000s
Net income / (expenditure) for year	32,692	(471)
Dividends, interest and rents from investments	(2,495)	(2,398)
Investment disposal levies and third party fees	15	33
Revaluation (gain) / loss on investments	(997)	34
Depreciation and impairment of tangible fixed assets	2,283	2,026
(Gains) on investments	(7,251)	(1,019)
Loss on write off of tangible fixed assets	47	52
Loss on write off of investments	1	41
(Increase) in debtors	(9,192)	(7,451)
Increase / (Decrease) in creditors	828	(2,872)
(Decrease) / Increase in hedge reserve	(851)	758
Net cash flow from operating activities	15,080	(11,267)

25 Pensions and other post-retirement benefits

Defined contribution pension plans
The charity operates a defined contribution pension plan for its employees.

The amount of contributions recognised as an expense during the year was £870k (2018 – £834k).

26 Related party transactions

Information about related party transactions and outstanding balances is outlined below:

	Income £000s	Expenditure £000s	Debtor £000s	Creditor £000s	Commitments £000s
Medical Research Council (MRC) associated					
At end date 2019	1,853	202	210	181	–
At end date 2018	2,008	(59)	102	–	–
Bridge Valley Ventures associated					
At end date 2019	53	825	228	–	–
At end date 2018	–	250	103	–	–
SpringWorks associated					
At end date 2019	23	–	6	–	–
At end date 2018	–	–	–	–	–

The members of the Board received no remuneration from LifeArc for their services as Trustees during the year. However, reimbursements for travel expenses with an aggregate value of £11,209 (2018 – £18,620) were made to seven members (2018 – eight members). These transactions were carried out on normal commercial terms.

Trustee indemnity insurance was purchased in the year at a cost of £9,934 including insurance premium tax (2018 – £5,521).

27 Limited liability

LifeArc is a company limited by guarantee and thus has no share capital.

In the event of LifeArc being wound up, every member of LifeArc undertakes to contribute no more than £1 to the assets of LifeArc while they are a member, or within one year after they cease to be a member, for the debts and liabilities of LifeArc contracted before they cease to be a member. The number of members at 31 March 2019 was 11 (2018 – 12).

28 Charitable status

LifeArc is a charity registered with the Charity Commissioners for England and Wales, number 1015243 and a charity registered in Scotland (number SC037861) with the Office of the Scottish Charity Regulator.

29 Ultimate controlling party

The charitable company is controlled by its members.

Notes to the financial statements continued

30 Post balance sheet events

In May 2019 LifeArc sold a portion of the royalty rights in *Keytruda* for $1,297,000,000.

31 Comparative statement of financial activities

	Unrestricted funds £000s	Restricted funds £000s	Total funds £000s
INCOMING RESOURCES			
Income and endowments from:			
Donations and legacies	–	–	–
Charitable activities	22,156	941	23,097
Investments	2,398	–	2,398
Other income	355	–	355
Total income and endowments	24,909	941	25,850
Expenditure on:			
Raising funds	549	–	549
Charitable activities	24,747	941	25,688
Provisions	312	–	312
Total expenditure	25,608	941	26,549
Net gains investments	228	–	228
Net (expenditure) / income	(471)	–	(471)
Net movement in funds	(471)	–	(471)
Reconciliation of funds:			
Total funds brought forward	174,972	–	174,972
Cash flow hedge reserve	758	–	758
Total funds carried forward	175,259	–	175,259

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Company number
LifeArc is a company limited by guarantee no. 2698321 incorporated in England and Wales.

Charity numbers
LifeArc is a charity registered with the Charity Commission for England and Wales no. 1015243 and a charity registered in Scotland with the Office of the Scottish Charity Regulator no. SC037861.