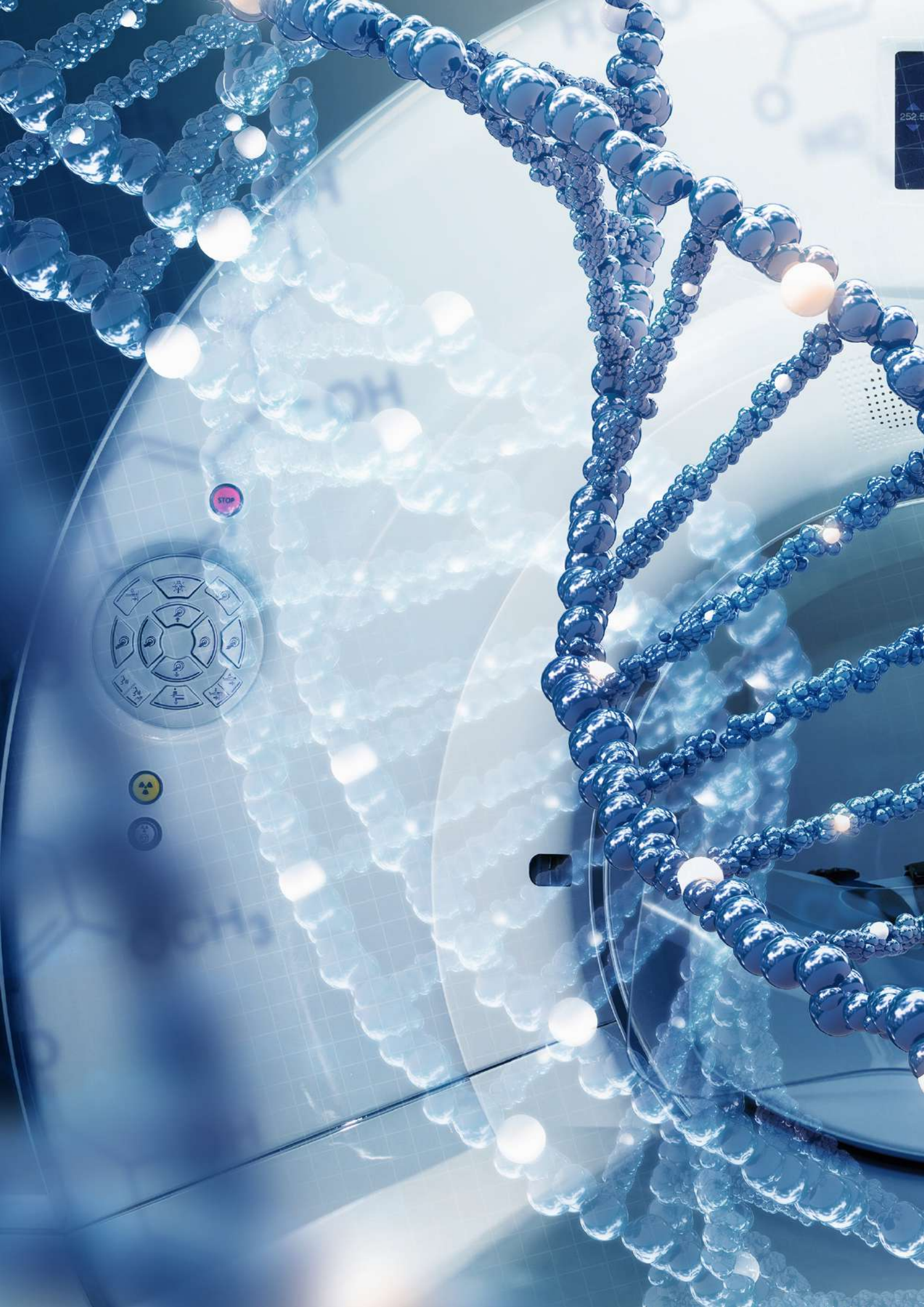
Advanced Oncotherapy plc

Annual Report 2018

Advancing cancer treatment with innovative, cost effective technology

ADVANCED ONCOTHERAPY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STRATEGIC REPORT

AVO and ADAM at a Glance

Headquarters:
London, UK

Lead technology:
LIGHT

Research and Development site:
Meyrin (Canton of Geneva), Switzerland

Verification, Validation and Assembly site:
Daresbury (UK), on the premise of STFC

First installation:
Harley Street, London, UK

First client:
Circle Health

Acquisition of ADAM S.A. by AVO:
April 2013

Listing / ticker:
LON: AVO

ADAM S.A. ("ADAM") was founded as a medical spin-off from CERN (for "European Centre for Nuclear Research"), in 2007, to develop "Applications of Detectors and Accelerators to Medicine".

A year later, the first proton beam was accelerated in the Large Hadron Collider, the world's largest and most powerful particle accelerator built by CERN, inside a 27 km ring underground.

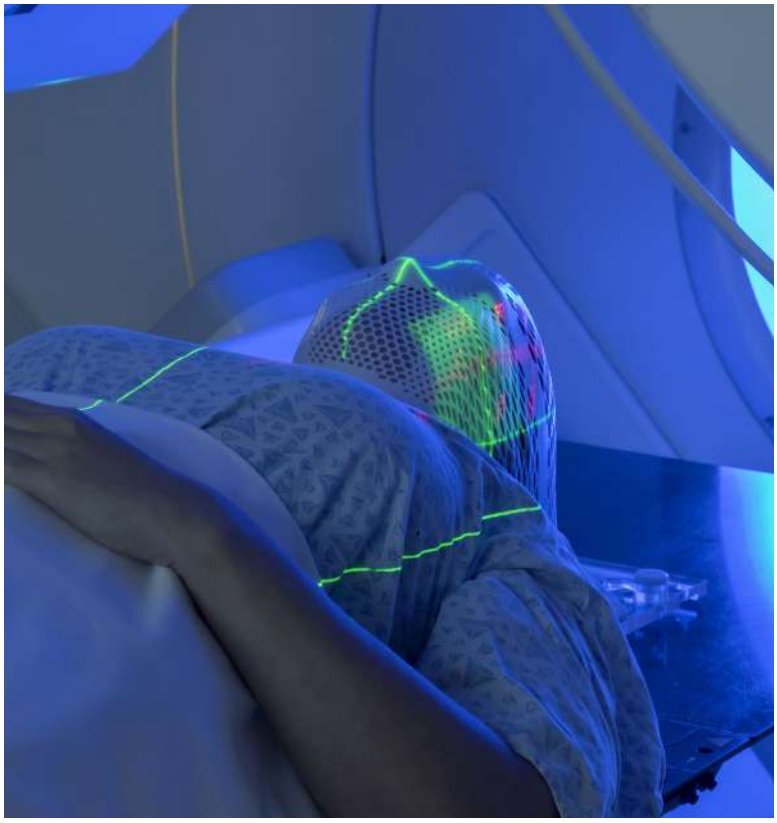
Advanced Oncotherapy plc ("Advanced Oncotherapy" or "AVO") acquired 100% of ADAM in 2013, along with the LIGHT proprietary technology.

LIGHT is the basis for the development of the next generation of proton-based cancer treatment solutions.

Its design offers significant advantages over conventional radiotherapy in the treatment of cancer.

ADAM office in Meyrin, Switzerland

CERN in Geneva, Switzerland



Proton therapy is a type of radiation therapy which uses charged particles called protons. Photons, which are used in conventional X-ray radiation therapy, and protons are generally regarded as having equal efficacy of tumour cell kill. However, proton therapy confers various benefits for cancer patients, particularly due to its better toxicity profile compared with X-ray radiation.

At present, the cost of proton therapy is higher than that of photon (X-ray) therapy because of the large initial investment required in equipment and infrastructure. All the proton therapy systems currently on the market use circular proton accelerators and their use is associated with significant cost and technical limitations.

The development of the first commercial linear proton accelerator for medical applications has opened significant opportunities to address the current shortcomings in radiation therapy and change the current treatment paradigm. Refer to pages 30 to 37 for more details.

Our Vision, Mission and Values

Our vision:

To develop a more affordable proton-based radiotherapy system, using an innovative and clinically more effective technology, and saving many more lives from cancer

Our mission:

To facilitate the wider use of radiation with protons for treating all forms of cancers by commercialising a novel technology, and building on the success and scientific know-how of CERN (Centre Européen pour la Recherche Nucléaire)

Our Values:

We accept that we have a duty to act responsively and be accountable for all of our actions. Integrity guides us to conduct our business with transparency.

RELIABILITY AND ACCOUNTABILITY

INTEGRITY

We choose the right path, not the easy path. We do the right thing to ensure patient safety, what is best for our patients and our community, every moment of every day.

COMMITMENT

We are passionate about the next generation of radiation therapies and are intensely focused on serving our clients and their patients. We do what we say we are going to do.

SINCERITY

We believe it will be our sincerity and openness, combined with our expertise that pave the way to change, progress and innovations that matter to patients.

COMPETENCE AND COLLABORATION

We work as one team, united by a common purpose, sharing knowledge with the organisations and communities who share our aim of defeating cancer.

CONSISTENCY

We always seek the most solid foundation of evidence available in every practice we embrace. Our research is guided by innovation, best practice, rigour and accuracy.

Our Story

Growing Need for a More Targeted Radiotherapy Technology

Making Proton Therapy More Widely Available

LIGHT Integrates a Breakthrough Proprietary Linear Accelerator

Business Model Designed for Success

- Conventional radiation therapy[1], used in up to 60% of cancer cases in the OECD[2], uses weightless photon particles which damage healthy tissue around the tumours and lead to costly side effects.
- Unlike photons, protons are heavy particles which deliver most of their energy to a targeted spot in the body and allow for up to 60% less radiation to healthy tissue[3], leading to fewer recurrences.
- Awareness of proton therapy's safety is high in Japan or in the US (when patients can afford to self-refer[4], most elect for protons) while it has kept rising in the UK since Ashya King's recovery was reported on[5].
- Out of 12,000 radiation therapy centres globally, only 81 systems are equipped with protons, providing capacity for the treatment of 60,000 patients only. Greater patient access is needed, especially in Asia[6].

- Current proton centres have technical constraints and are very expensive to set up and run. This results in a treatment that is largely unaffordable and unavailable. The NHS has been able to send only c.100 children per annum for treatment abroad, at a cost of £100k to £150k.
- The overall proton therapy project must be affordable and profitable: the industry needs a system that can be produced in high-volume, at a lower cost, and rapidly installed.

- Because of its linear design, LIGHT is designed to offer the most precise and fastest proton beam for cancer treatment, with hypofractionation (i.e. reduced number of patient visits to the hospital) and adaptive therapy[7] being a reality.
- LIGHT's linear design also makes it the most environment friendly system: the release of undesirable radioactivity in the accelerator room is decreased by 98%; which dramatically reduces the size of the expensive shielding walls by up to two thirds and facilitates the installation of the equipment in existing medical facilities.
- Because of its modular design, LIGHT lends itself to high-volume production, rapid installation and rapid expansion.
- The design of LIGHT is proven and follows more than 25 years of work at CERN.

Strategic partners with "skin in the game":

- Manufacturing processes are outsourced with the support of leading manufacturers such as Toshiba or Philips.
- An assembly hub is being set up at Daresbury, UK, in partnership with the UK-government body, STFC, where the Verification and Validation will take place, while the Harley Street facility operated by Circle Health is completing a £10 million refurbishment paid for by the freeholder.
- The Company has been able to attract industry talents with proven track-records[8], including Moataz Karmalawy (former Head of Varian Proton Therapy) who was recently hired as Chief Commercial Officer and President, US.
- The Board controls 43% of the shares as of 31 December 2018.

A year of consolidation and technical achievements:

- A well-considered implementation plan is in place to successfully transform the Company into the undisputed leader for proton therapy.
- Since the acquisition of ADAM and LIGHT, the Company has identified a prime site in Harley Street, partnered with Circle Health, gained planning permission for the site, completed the tender process for the construction, and has made considerable advances in the technical development of LIGHT: following a proton acceleration sufficient to treat superficial tumours in Q3:18, AVO has been awarded the ISO:13485 certification in Q1:19.
- The Company is now focused on manufacturing the remaining accelerating structures of LIGHT by Q3:19 and on treating first patients by the end of 2020. AVO is strongly positioned to fulfil a pipeline of interest already established in the UK, Europe, the US and across Asia, including one purchase order in London to Circle Health and 11 expressions of interest from Chinese hospitals.

[1] *Often called "X-rays"*
[2] *22 million cases per year by 2030 according to WHO, Cancer Research UK, American Cancer Society, IARC*
[3] *American Society of Clinical Oncology*
[4] *Patients with prostate cancer*
[5] *https://www.bbc.co.uk/news/uk-england-manchester-40295279*
[6] *https://gco.iarc.fr/today*
[7] *See the section on "Benefits of Using a Linear Proton Accelerator"*
[8] *The Large Hadron Collider (LHC), the world's largest and most powerful particle accelerator, was switched on in 2008. A number of scientists from AVO-ADAM were involved on this successful project.*

Statement from the Executive Chairman

Dr Michael Sinclair, Executive Chairman of AVO

INTRODUCTION

I have worked in the Healthcare industry for almost 50 years and LIGHT represents the project I am most proud of. As Executive Chairman of the Company, I know that many of our stakeholders – whether they are employees, suppliers, development partners or shareholders – feel the same way. This feeling comes from our strong association with CERN, an organisation that has pushed the frontier of physics and made a positive impact on society globally. But this is also because the technology we have acquired has the potential to change the way we treat cancer and save many lives. Proton therapy has clear benefits over conventional radiotherapy but it has to be democratised, so that many more patients can benefit, and not just a few. Since the acquisition of ADAM in 2013, our team and partners have made great progress in making this vision a more tangible reality.

Of course, the excitement of driving this project forward comes with responsibilities and I owe each of you transparency with regards to the challenges associated with the development and commercialisation of our technology. With the achievements we announced in 2018, the risks associated with (i) the development of the technology, (ii) the regulatory requirements and (iii) the set-up of the manufacturing and commercial infrastructure have all decreased. However, I know all too well that such risks will always exist and it is our responsibility to ensure that these are appropriately managed. Whilst my fellow Directors and I view these challenges with confidence, our ability to address them largely hinges on the ability of the Company to raise adequate funding. Bringing LIGHT to the market will require further funding and this implies risks. It is encouraging that we have been able to make progress at a much lower cost than most other comparable projects, but more remains to be done.

The support we have received in 2018 and in the first part of 2019 from different funding sources, including a £10 million two-year secured debt facility from Credit Suisse, and our ability to attract talents such as Moataz Karmalawy – a person who led the transformation of the Varian Particle Therapy business unit and who recently joined the Company as Chief Commercial Officer and President, US – show me that more and more people share in our vision; this further reinforces my conviction that cancer is a fight that we can win only if all stakeholders work together. This is key to secure our funding plan and execute our strategy as per the plan we set. It is also very important to minimise dilution for our shareholders who have been extremely loyal and supportive.

I have highlighted below the developments made by the Company. I look forward to discussing this at our next AGM and during an investor presentation to be arranged later this year. Thank you for all your support.

OUR UNIQUE TECHNOLOGY - ADDRESSING A CLEAR CLINICAL DEMAND

Creating a cost-effective proton therapy technology that offers cancer patients better outcomes with lower treatment-related side effects, and that is at the same time affordable enough to be made available more widely remains the core focus of our efforts.

It is disappointing that the high cost of building and operating traditional proton therapy technologies has meant that the global capacity to treat cancer patients in this way has been extremely low. Only 1% of patients eligible for radiotherapy are being treated with proton therapy currently, with a capacity for as little as 60,000 patients to be treated annually across the globe. Considering the UK alone, where roughly 360,000 patients are diagnosed with cancer each year, it is clear that there is a desperate clinical need for the roll-out of a technology that can bring the benefits of proton beam therapy to millions of patients worldwide.

LIGHT's technical advantages offer the potential to make proton therapy a more affordable and accessible treatment:

- **Significantly lower shielding requirements:** The LIGHT system uses an innovative linear accelerator rather than a circular one. This results in less radioactive energy being created during operation, significantly reducing the costs associated with the extensive shielding requirements needed with circular technologies. This is because the beam energy can be adjusted at source, requiring no absorbers or energy reduction devices. This is particularly relevant when considering that the bulk of the project costs for setting up proton therapy centres are related to the building;
- **Precision:** The proton beam created by the LIGHT system can be moved and adjusted very rapidly, allowing for more accurate targeting of cancerous tumours. Spot scanning, which allows a more conformal dose, is supported by LIGHT;
- **Versatility:** While other systems come in one size, the LIGHT system can be customised due to its modularity. This offers clinics an opportunity to expand their offering to other rooms and / or to increase the system's maximum energy step-by-step, as clinical needs develop. The fact that new modules can be added to increase output energy at any point reduces the commitment by healthcare providers to high upfront costs for systems that may not be fully utilised;
- **Affordability:** Due to the modular nature of the system, reduced shielding requirements and its suitability for high-volume production manufacturing, the LIGHT system is well positioned to reduce the treatment price per patient at a fraction of the price charged today for patients receiving proton therapy;
- **City-centre focus:** LIGHT's reduced volume and modularity allow for implementation in existing clinical sites and densely populated areas where space is scarce. This means that the technology can make proton therapy more accessible to patients, ensuring that as many people as possible can benefit from it; and

- **An integrated system:** In partnership with Raysearch AB, the global leader in software solutions for X-ray and particle therapies, LIGHT will offer a full work-flow integration from patient intake, over treatment planning, through to beam delivery, and ensure a seamless patient treatment experience.

OVERVIEW
We are delighted to report another year of progress in the technological development and installation of our first LIGHT system, our next generation proton therapy system for treating cancer. From a technical perspective, the most challenging development aspects are now behind us after the successful integration of all key structures of the LIGHT system and the generation of a beam with sufficient energy to treat superficial tumours.

We can now focus on the lower-risk process of integrating additional accelerating modules to increase the beam energy and improve the quality of the proton beam, in terms of performance and reliability.

Preparations at the Science and Technology Facilities Council ("STFC") Daresbury Laboratory are proceeding to plan with the continued commitment of treating first patients by the end of 2020. The building work for the first commercial installation of LIGHT, in Harley Street, London, remains on track. The project is moving forward with the fit-out phase expected to start in the second half of 2019.

Thanks to the completion or announcement of equity investments totalling £37 million in 2018, we have been able to progress our activities and we are maintaining a continuous dialogue with investors to provide funding for the next stage of this project: regulatory approval and commercial roll out.

Whilst exact timings for the completion of such an undertaking can be subject to challenges in the process including those related to the appetite of financial markets, we remain confident that we will deliver a market-leading proton therapy system that can make proton therapy more widely available to patients than existing technologies and which will bring a paradigm shift in precision cancer treatment, globally.

TECHNOLOGICAL DEVELOPMENT
The most significant advances during the year have been seen in the technological development of our first LIGHT system. We have fully integrated all key accelerating components and achieved the most challenging aspect of generating a beam with an energy level capable of treating superficial tumours.

In October 2018, we were proud to announce that LIGHT was able to generate a proton beam with an energy of 52MeV, roughly double the output energy achieved a month earlier, and sufficient to treat superficial tumours such as ocular tumours, parotid gland tumours, basal cell carcinoma, and some soft tissue sarcomas, to name a few. The development team remains focussed on the lower-execution risk activity of adding further accelerating modules, which have the same designs as the ones already tested and operating, and with the successful integration of a total of 15 accelerating modules the LIGHT systems will be able to generate a proton beam of 230MeV, the energy required for the effective treatment of deep-seated tumours.

Given the modular design of our high-speed accelerating units, the integration of additional modules is now a relatively de-risked procedure and so once Raysearch's software suite is completed to accommodate for LIGHT's precision and for the integration with P-Cure's highly integrated positioning systems, LIGHT will be able to treat first patients as planned. Through our partnership with P-Cure, we expect to receive the robotic treatment chair and sliding CT scanner at our STFC assembly plant shortly following extensive testing.

We have established a strategic relationship with RaySearch AB, a leading provider of software solutions for radio and particle therapies, which will be providing both the treatment planning system via RayStation, and the oncology information system using Raycare, which enables personal adapted care. RaySearch's treatment planning systems are used by proton therapy centres around the world having been adopted by 43 centres across 14 countries.

We have been encouraged by the successful ongoing testing of our Time-of-Flight measurement system which measures the speed of the beam and allows the evaluation of the energy of each proton pulse, an important clinical parameter, key for ensuring beam control and adjustability.

Following the end of the financial year, Advanced Oncotherapy was granted ISO 13485:2016 certification; a highly regarded quality standard which ensures consistency across the design, development, production, installation and sale of medical devices that are safe for their intended purposes.

ROAD TO COMMERCIALISATION
As we further advance in the integration of the first LIGHT system, we remain cognisant of other commercial opportunities.

Discussions for a second UK site in Birmingham continue and we remain in dialogue with institutions across the US, Europe and the Middle East. The Company also received a payment of £16.5 million relating to the exclusive distribution agreement with Liquid Harmony to market and sell Advanced Oncotherapy's LIGHT system across China, Macau, Taiwan, Hong-Kong and South Korea. Having already identified eleven potential installation sites for the LIGHT system, Liquid Harmony and the Company have committed to a target of three installations over the first four years and the financing of ten further systems following the regulatory approval of the LIGHT system in China.

We continue to assess options for offering eased access to financing packages to our prospective customers.

FINANCING
During 2018, we completed or announced £37 million in equity investments. This has provided us with the funds necessary to continue our development.

In February 2018, we completed an equity raise worth £20.9 million at placing price through subscriptions, placings and the conversion of debt. This included a subscription for £13.5 million by Liquid Harmony and further subscription and conversion of debt for £7.4 million from other investors, including members of the Board and members of a consortium formed by AB Segulah.

In September 2018, we successfully concluded an equity raise of £6.4 million which attracted a number of prominent Swiss Private Banks as well as healthcare providers based in Switzerland, which shows a clinical recognition of the need for our technology and the close connection our Company has with CERN.

At the very end of the year we were pleased to announce a further subscription for shares to raise £10 million. This investment, which included £4.8 million invested by Paris-based DNCA Investments, completed post period-end.

Statement from the Executive Chairman_continued

On 21 January 2019, the Company held a General Meeting during which all resolutions related to the £10 million funding round announced in December 2018 were duly passed. As a result, the Directors were granted the authority to issue 25 million new shares to the places who invested during that financing process.

In May 2019, the Group secured additional financing for a total amount of £12.3 million in the form of a two-year secured debt facility with Credit Suisse AG for £10.0 million and a direct subscription of £2.3 million.

FINANCIALS
The Group recorded a comprehensive loss of £20.2 million in the year ended 31 December 2018 (2017: £14.7 million), with shareholder funds as at 31 December of £34.0 million (2017: £28.7 million).

Cash and cash equivalents at the year-end were £1,013,053 (2017: £56,479), although these year-end figures do not take into account post period financing agreements.

BOARD CHANGES AND SENIOR MANAGEMENT APPOINTMENT
As detailed in our 2018 Half-Year Report, we made a number of Board changes during the year. Sanjeev Pandya, Euan Thomson and Chris Nutting stood down from the Board and five Non-Executive Directors were appointed.

Peter Sjöstrand joined as Non-Executive Director and Vice-Chairman and we are pleased to benefit from his experience as a seasoned Independent Non-Executive Director for public and private companies within the Healthcare, Industrial and Financial sectors.

Gabriel Urwitz, founding Partner and Chairman of AB Segulah, joined as a Non-Executive Director. He is a Director of AB Segulah and a shareholder in the Company.

RenHua Zhang, Chunlin Han and Yuelong Huang, all representing Liquid Harmony, also joined as Non-Executive Directors.

Post period-end, we announced the appointment of Moataz Karmalawy as Chief Commercial Officer and President of the US division. This was a major coup for the Company given that Moataz joins us from Varian Medical Systems, Inc. where he was heading their Particle Therapy Business. His experience of growing the proton therapy business' order book to in excess of $1 billion and achieving a 50% market share in the global particle therapy products market will be invaluable as he leads our commercialisation efforts worldwide.

The Board have also agreed that, with immediate effect, Prof Stephen Myers (Executive Chairman of ADAM) will assume the role of Executive Director of Advanced Oncotherapy, reflecting his current role and responsibilities.

OUTLOOK
Having made significant progress across numerous operational areas, we pursue our objective to deliver on our first patient treatment target by the end of 2020. The Harley street site will be shortly moving into fit-out phase and we expect to have all of the accelerating modules manufactured later this year, which will enable us to generate a proton beam with the required energy to treat deep-seated tumours, once fully integrated. We expect to be able to update shareholders on our progress in this regard as we continue to improve proton beam performance during the integration stage.

By the end of the year, we aim to have a tailor made treatment plan in place for our LIGHT system and expect to have the entire patient positioning system installed. We will also update shareholders on the progress being made in scaling up our production capabilities at our assembly site in Daresbury, which will be key for the commercial roll-out of these systems. We still have a number of significant challenges ahead which are inherent to the nature of such a complex project and subject to conditions and appetite of the financial markets as these relate to funding activities. We remain committed to deliver a breakthrough in proton therapy technology, one which will open up the availability of treatment to a much wider patient population. We see a number of significant catalysts ahead of us over the next 18 months and we look forward to delivering against these and keeping shareholders updated as we aim to create further value.

Perspectives from the CEO

Interview with Laingbuisson

Nicolas Serandour, Chief Executive Officer of AVO

Something remarkable is happening in the heart of Harley Street. At numbers 141 and 143, two adjacent Grade II listed buildings are being converted into London's first privately-built proton beam therapy centre. Not only is this site roughly a tenth of the size of the pioneering proton beam centre being constructed at UCLH, but the very technology it hangs on is still being tested.

It is an ambitious project, fraught with technical hiccups and inherent hurdles but Advanced Oncotherapy's proposition is so compelling that not only has it caught the eye of major international backers, but one of the capital's biggest landowners. So much so, that Howard de Walden Estates has stumped up £10 million to fund the construction of its first site.

Our machine is being tested and assembled in our Swiss facility and at our new assembly centre in Daresbury while the building work is ongoing. The confidence the Company has managed to elicit in investors and other stakeholders is largely due to the fact that the technology is founded on solid scientific principles and decades of research initiated at CERN.

The design of our machine is already well-proven. This follows 25 years of work at CERN and then at our Swiss subsidiary, ADAM. We have already accelerated protons at low energy. To achieve our plan, we are teaming up with medical and industrial equipment manufacturers who have products and sub-systems already on the market, including Toshiba, VDL, Leoni and many others, but our partners also have skin in the game. For example, we are fortunate to count on the support of the Howard de Walden Estates in London, which is bearing the building costs of our Harley Street facility.

Outside of the medical profession, little was known about proton beam therapy in the UK until it was cast into the spotlight in 2014 when Ashya King was taken by his parents from a UK hospital to Prague to receive proton therapy treatment for a brain tumour. Since then, the NHS has announced plans to open two sites – one at The Christie in Manchester and the other at UCLH – while private firm Proton Partners International has opened its first site in South Wales.

Healthcare Markets, LaingBuisson. Volume 22, Issue 9

LESSONS IN PARTICLE PHYSICS

The physics behind proton beam is complex. Essentially, it is a type of radiotherapy but unlike conventional radiation treatment, which uses weightless particles such as photons delivered through X-rays machines, it uses heavy proton particles that can be tuned to depose all their energy at the depth of the tumour. This highly-targeted treatment means it is effective for hard-to-reach cancers and the risk of damaging the surrounding tissue is expected to be much lower.

Radiation therapy is prescribed in up to two-thirds of cancer cases in the US and although it is effective, the photons pass through the patient, resulting in healthy tissues and organs being damaged by the beam. This leads to a number of side effects. But if you don't irradiate the healthy tissue before and after the tumour, there are no side effects. Because protons can be so precisely targeted, fewer healthy cells are exposed to radiation and up to 60% damage to healthy surrounding tissue may be avoided. Almost any radio-sensitive tumour can be irradiated with proton beam, so why is it still not common medical practice? The answer, as always, is money.

At the moment, proton therapy is not widely available due to its cost and the sheer magnitude of the equipment and facility. This means it is largely confined to treating tumours that are located in close proximity to sensitive organs, for which there is no real alternative treatment, and for paediatric tumours, given that children are most at risk of suffering from long term side effects.

The issue is not just the price of the technology, but also the heavy construction works required to house circular proton accelerators already on the market. The cyclotron used to accelerate particles in conventional proton beam therapy can measure 500 cubic feet and weigh 90 tonnes. Together with this, large and numerous magnets are required to guide the protons along a beam and into the treatment room while each room needs to be fitted with a multi-storey gantry to direct the beam precisely at the tumour. At UCLH, this has involved excavating 160,000m3 of earth to construct a 360,000m2, five-level building 28.5 metres below ground.

A high-energy proton beam allows you to treat a deep-seated tumour whereas a low-energy proton beam is suited for superficial tumours such as ocular tumours. The ability to change energy in a fast and reliable manner is one of the most important technical and clinical parameters, particularly when treating moving targets. However, in current machines, this change of energy involves relatively slow mechanical devices which result in significant proton losses and induced radiation. This in turn has implications

on the required thickness of the protective shielding which needs to be installed and results in large and expensive bunkers. This is one of the reasons for the prohibitive costs to install and run legacy proton therapy cyclotrons.

Despite the demand and the proven technology, this has made adoption of proton beam therapy slow to gain traction. At least up until recently.

Advanced Oncotherapy's next generation proton therapy system, LIGHT, uses a series of linear accelerating units to propel the protons immediately to the required level of energy, removing the need for a cyclotron and other heavy equipment.

The only way to reduce treatment costs is through the development of a different particle accelerator and this is what we have achieved with the support of CERN and the design of a linear accelerator. I cannot over-emphasise that the need to reduce costs should not be sought after at the expense of the quality of care. Quality of care and cost reduction can go hand in hand.

Not only is the LIGHT technology designed to reduce installation costs, but its modular design means it should be cheaper and easier to maintain and, crucially, can be retrofitted into existing facilities.

Our accelerator has the ability to modulate the energy of the proton beam much faster than any other system in the world. This property is key to deliver radiation more precisely into targeted tumours. Eventually, this also offers a tremendous potential to deliver more radiation per treatment session, thereby considerably reducing the number of patients visits to the clinic. Our system also includes very high-tech instruments using software and hardware such as the Philips CT scanner and the positioning robot from Leoni which are integrated by P-Cure. Associated with the most recent imaging techniques, the LIGHT system allows us to deliver better treatment planning and to optimise the patient flow within the clinic.

PROTON POTENTIAL

During the last 20 years or so, I have seen the development of new healthcare technologies, the booming of personalised medicine and increased awareness around orphan drugs and I could see quite clearly that proton therapy would be following a very similar path. This has naturally led me to Advanced Oncotherapy. In that context, my banking and advisory background has been very helpful; it helped me to better understand how each stakeholder thinks about healthcare and respond to challenges and opportunities, but also develop processes which can be easily implemented into operations and this is particularly relevant for fast-growing companies such as ours.

Installing a machine like this in the heart of London in two adjacent Grade II listed buildings is a first and it demonstrates that we can install this technology everywhere. By everywhere I mean from the largest hospitals to the smallest clinics.

As well as being a game-changer in cancer treatment, the technology offers a platform for innovation in areas such as surgery and diagnostics.

In the same way that some of the major electronics and phone companies have done, we have tremendous opportunities to continually improve our LIGHT technology. This is a very versatile platform which could be upgraded over time and this is captured in our development roadmap. For example, adding more accelerating structures opens up the opportunity to use protons for imaging purposes. When looking at the various cancer modalities, we are seeing a clear focus on targeted therapies such as immunotherapy, minimally invasive surgery and obviously proton therapy, which are all aimed at reducing side effects and making cancer more acceptable as a chronic disease. In that context, a significant effort can be made on combining various treatment and this is something that we are assessing very closely to leverage our technological platform.

A typical proton therapy treatment costs on average £90,000. Most families cannot afford that. Our goal is to minimise the price differential between X-rays and proton therapy. We have to do what it takes to treat the patients who cannot currently afford this treatment. We are also working hard to ensure that children will be the prime beneficiaries of this. Underpinning all of this is our commitment that all patients should be treated in the same way regardless of their personal situation.

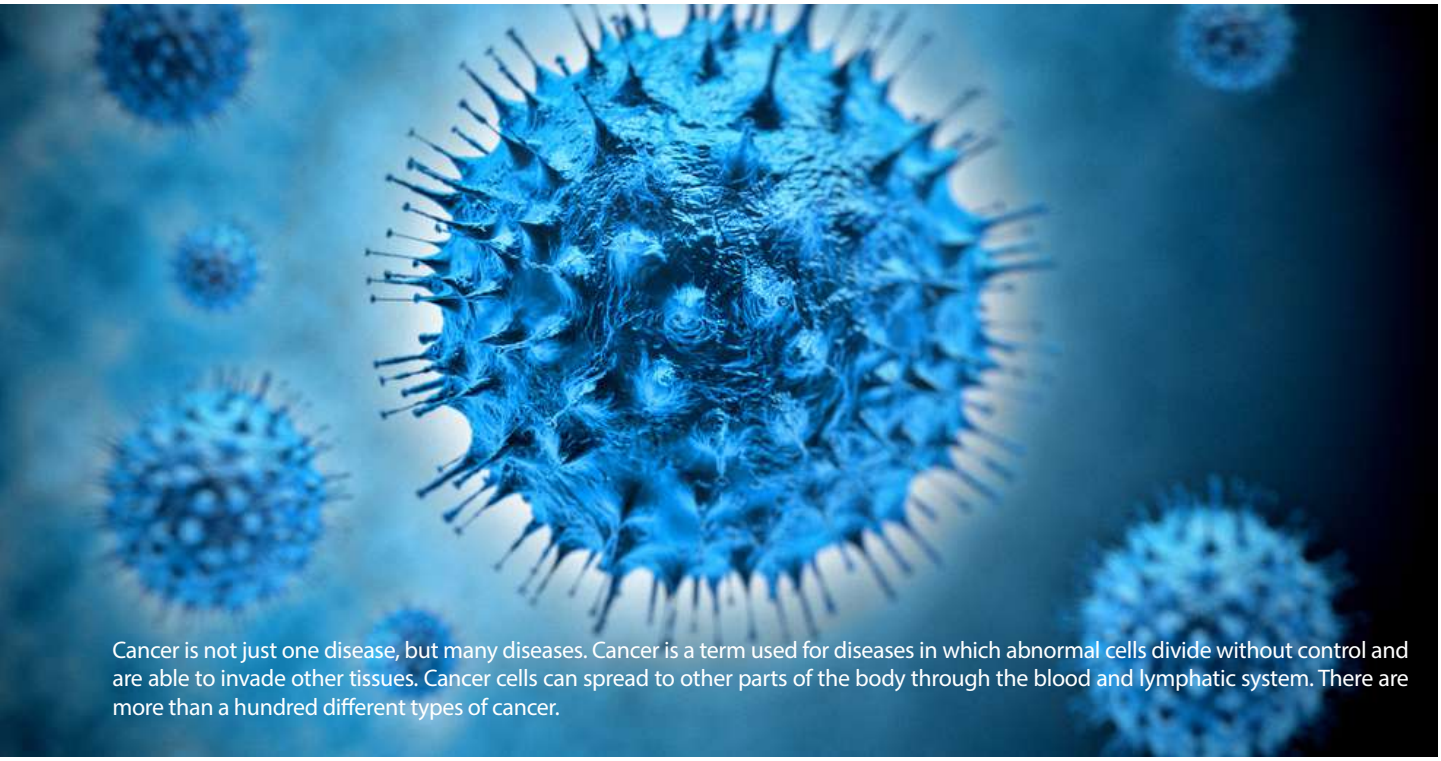
Costs are already beginning to come down as the number of proton beam therapy centres increases globally. But this is just the start of the journey and with the new LIGHT technology, proton beam therapy could be delivered at a cost closer to conventional X-rays.

There are 81 proton therapy systems in the world as of May 2019, but approximately 12,000 X-rays therapy systems. In the UK, more than 360,000 people get diagnosed with cancer every year and with the ageing population the cost of treating cancer in the UK is expected to increase to more than £15 billion. That translates into a need of at least 60 treatment rooms if you consider that half of the cases may receive radiation. So, the problem is not on the demand side; rather on the offering. All of this reminds me how the MRI market has developed over time.

"When MRI systems were launched, there was a view that one machine for five million people would be needed. There are now more than 13 MRIs per million people in Europe! The same path should happen in proton therapy as the machines become more 'intelligent' and financially attractive."

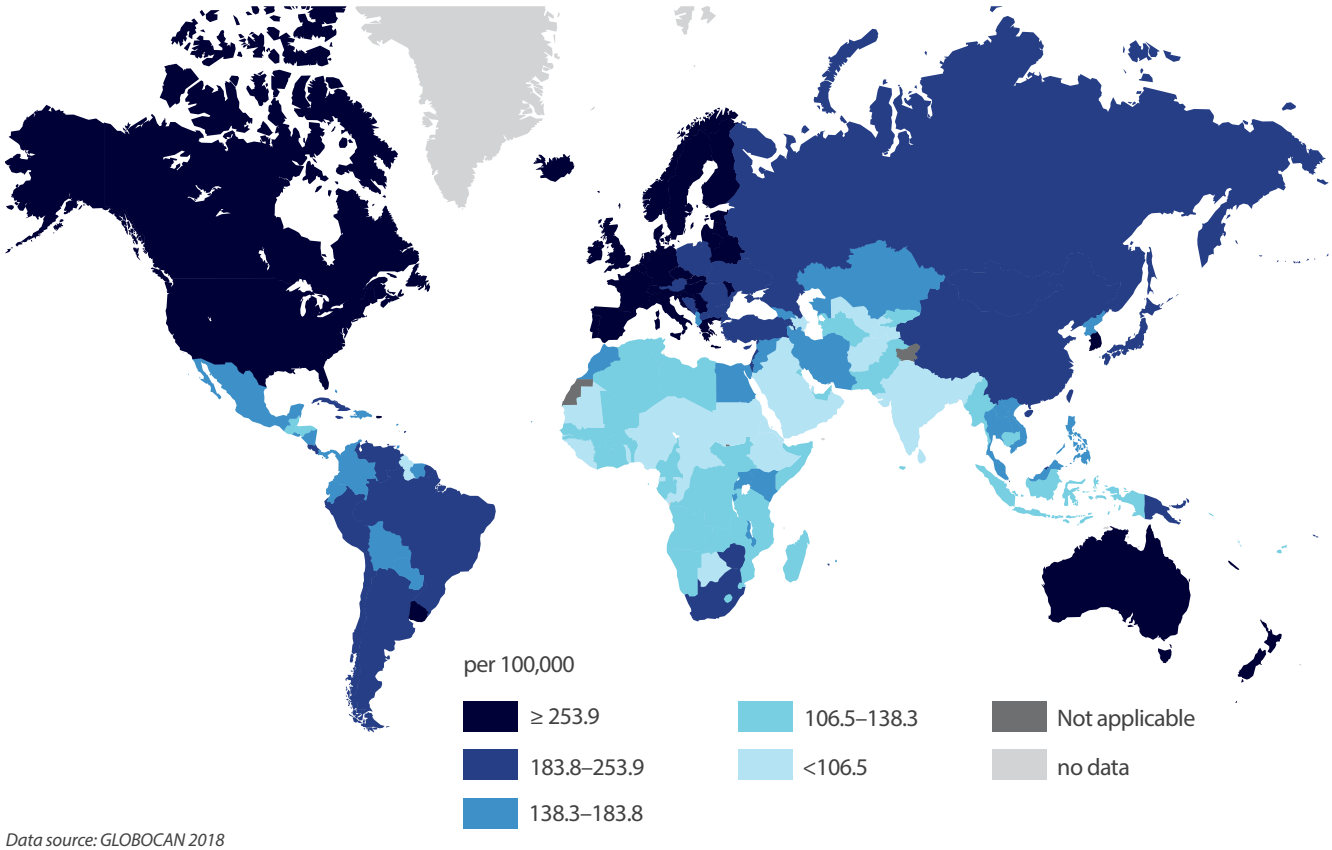
Nicolas Serandour
CEO of Advanced Oncotherapy plc

Key Facts about Cancer



Cancer is not just one disease, but many diseases. Cancer is a term used for diseases in which abnormal cells divide without control and are able to invade other tissues. Cancer cells can spread to other parts of the body through the blood and lymphatic system. There are more than a hundred different types of cancer.

CANCER INCIDENCE RATES IN 2018 (ALL CANCER, BOTH SEXES, ALL AGES)



Data source: GLOBOCAN 2018
Graph production: IARC (http://gco.iarc.fr/today)
World Health Organization

18.1 million	The global cancer burden is estimated to have risen to 18.1 million new cases in 2018.
9.6 million	Cancer is the second leading cause of death globally, with an estimated 9.6 million deaths in 2018.
43.8 million	Worldwide, the total number of people who are alive within 5 years of a cancer diagnosis, called the 5-year prevalence, is estimated to be 43.8 million.
1 in 2	One in 2 women in the UK will be diagnosed with cancer during their lifetime[1].
60%	Global patterns show that nearly half of the reported new cases and more than half of the reported cancer deaths worldwide in 2018 were estimated to occur in Asia, in part because the region has nearly 60% of the global population.
23%	Europe accounts for 23% of the reported cancer incidence and 20% of the cancer deaths, although it accounts for only 9% of the global population. North America and South America have 13% of the global population and account for 21% of incidence and 14% of mortality worldwide. In contrast to other world regions, the proportions of reported cancer deaths in Asia and in Africa (57% and 7%, respectively) are higher than the proportions of incident cases (48% and 6%, respectively).
5	Around one third of deaths from cancer are due to the 5 leading behavioural and dietary risks: high body mass index, low fruit and vegetable intake, lack of physical activity, tobacco use, and alcohol use.
22%	Tobacco use is the most important risk factor for cancer and is responsible for approximately 22% of cancer deaths.
26%	Late-stage presentation and inaccessible diagnosis and treatment are common. In 2017, only 26% of low-income countries reported having pathology services generally available in the public sector. More than 90% of high-income countries reported treatment services are available compared to less than 30% of low-income countries.
$1 trillion	The economic impact of cancer is significant and is increasing. The total annual economic cost of cancer has been estimated by the World Health Organization at around US$ 1.16 trillion, taking into account all chronic and non communicable diseases[2].

[1] *Cancer Research UK, https://www.cancerresearchuk.org/health-professional/cancer-statistics/risk/lifetime-risk*
[2] *page 302 of World Cancer Report 2014, quoting The World Economic Forum's Global Risks 2010 report*

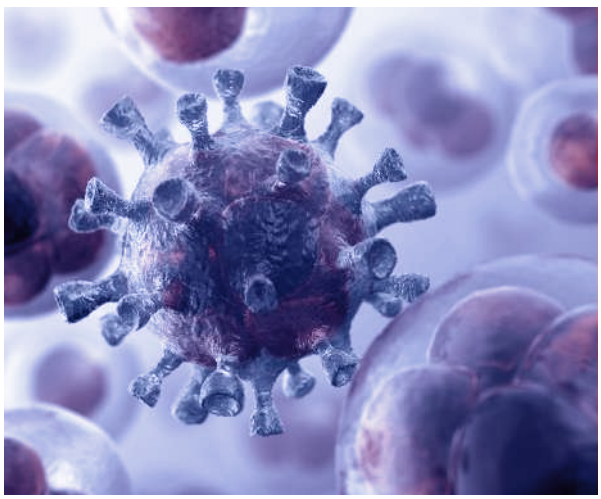
120 Years of Progress in Radiotherapy

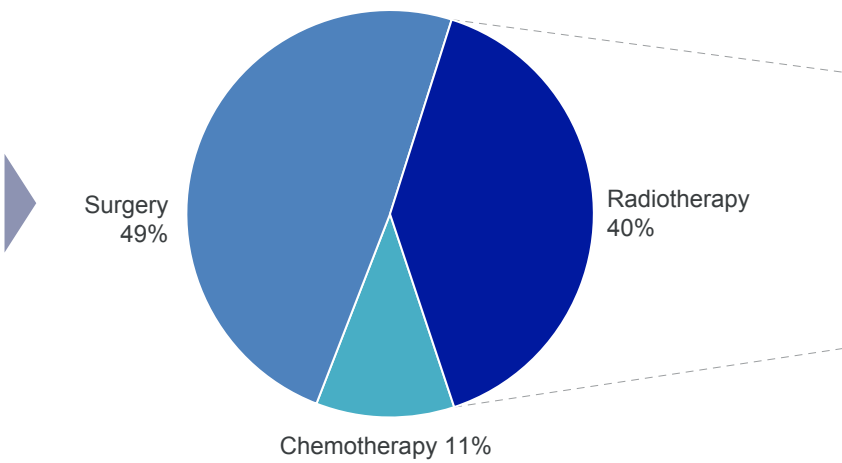
The treatment of cancer relies largely on three primary modalities: surgery, radiotherapy and chemotherapy. To these we can add a number of other adjuvant therapies: immunotherapy, targeted therapy and gene therapy. The use of ionising radiation to treat cancer started soon after the discovery of radium by M.S. Curie and P. Curie in 1898. The first histologically documented cancer cures using radiation were in St. Petersburg in 1903 by S.W. Goldberg and Efim Semenovich London.

Radiotherapy is currently an essential component in the management of cancer patients, either alone or in combination with surgery or chemotherapy, both for cure and for palliation. Of those cancer patients who are cured, it is estimated that 49% are cured by surgery, about 40% by radiotherapy alone or combined with other modalities, and 11% by chemotherapy alone or combined.

Ionising radiation in sufficient doses has a cell killing effect, but it is not specific enough to differentiate between cancerous and normal cells. Strategies had to be found to improve the therapeutic index, either by physically improving target conformity or by increasing the radiation sensitivity of the cancer cells relative to the normal cells. The need to spare healthy tissue surrounding tumours has led to the development of new radiation techniques, including proton therapy.

Proton therapy is a type of radiation therapy which uses protons, as opposed to photons used in conventional radiotherapy (i.e. X-rays). It offers many advantages to patients. Unlike conventional radiotherapy, it minimises - by up to 60% - the damage to the healthy tissue surrounding the tumour, hence allowing patients to receive higher and more effective radiation doses. This makes proton therapy ideally suited for treating tumours close to vital organs, situated deep within the body or associated with paediatric cases.

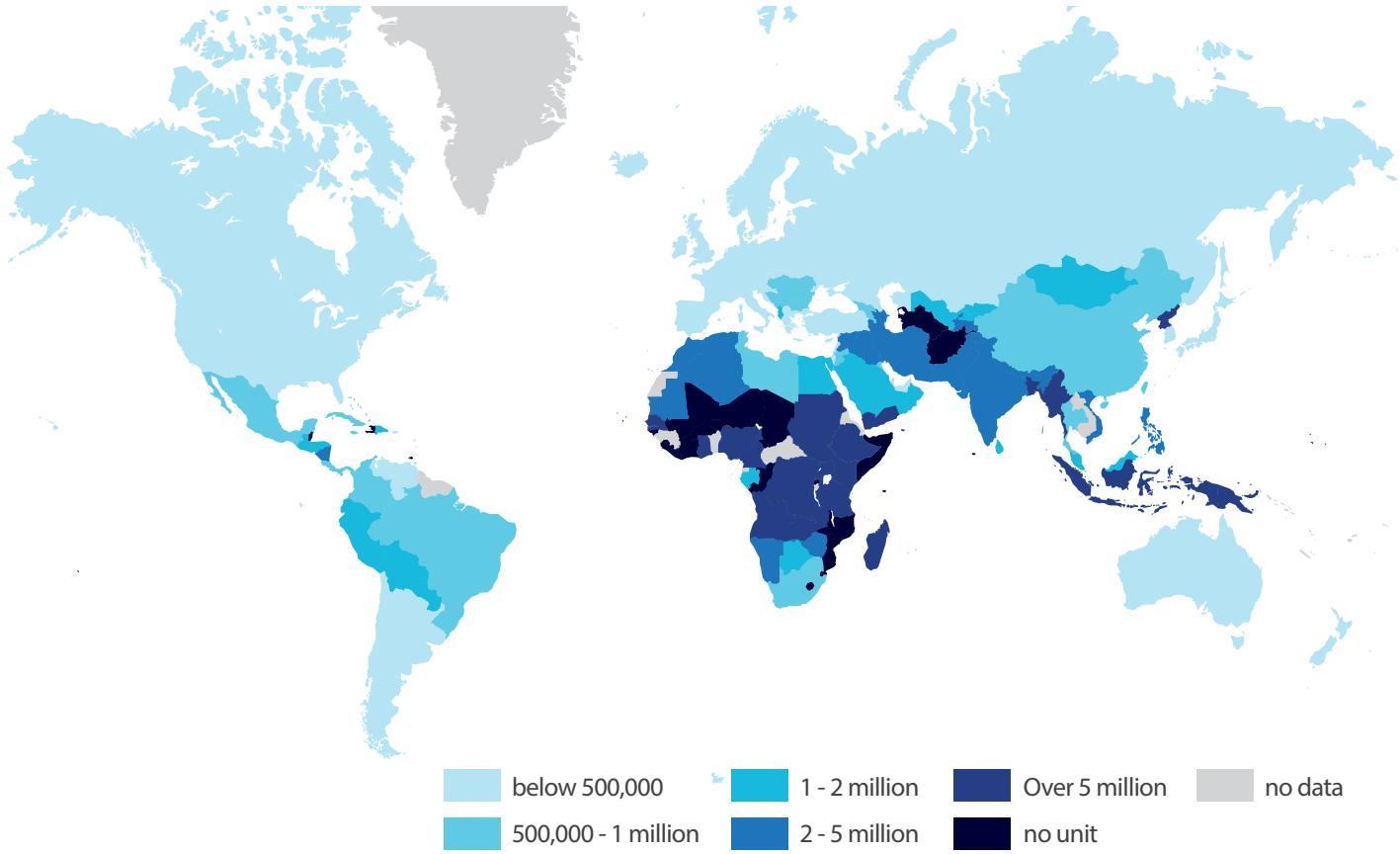




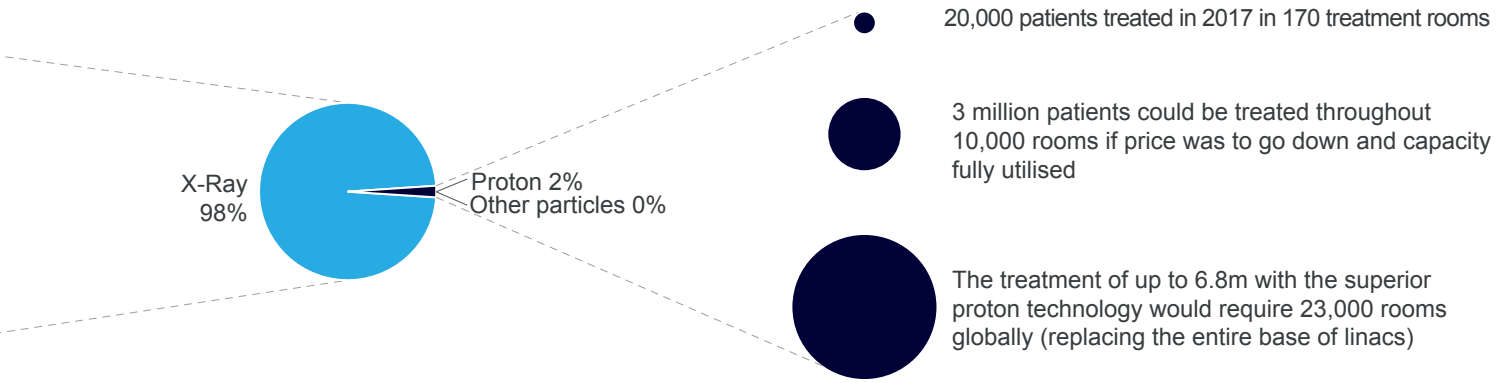
18 million new cancer cases worldwide in 2018

40% of the cancer cases treated with radiotherapy

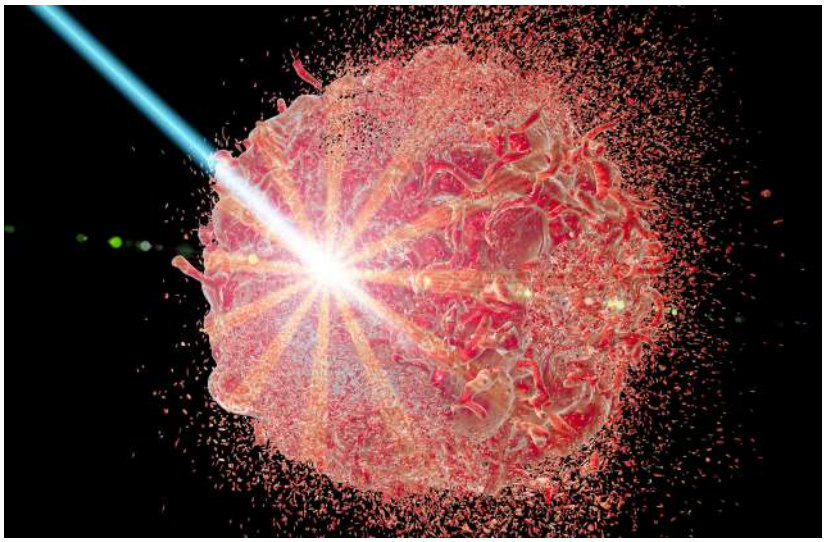
NUMBER OF PEOPLE SERVED BY ONE RADIOTHERAPY UNIT



Source: E. Rosenblatt, E. Zubizarreta, Radiotherapy in Cancer Care: Facing the Global Challenge, International Atomic Energy Agency Vienna, 2017, https://www-pub.iaea.org/MTCD/Publications/PDF/P1638_web.pdf



Overview of Proton Therapy

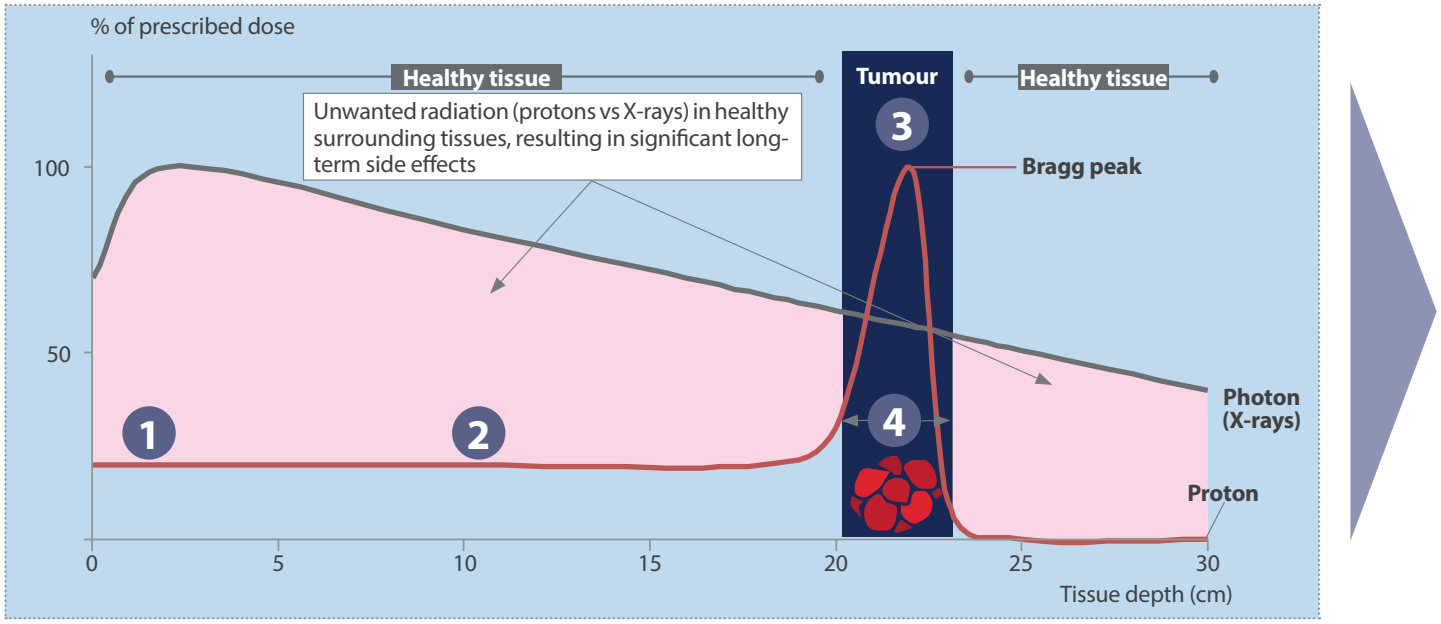


HOW DOES PROTON THERAPY WORK?

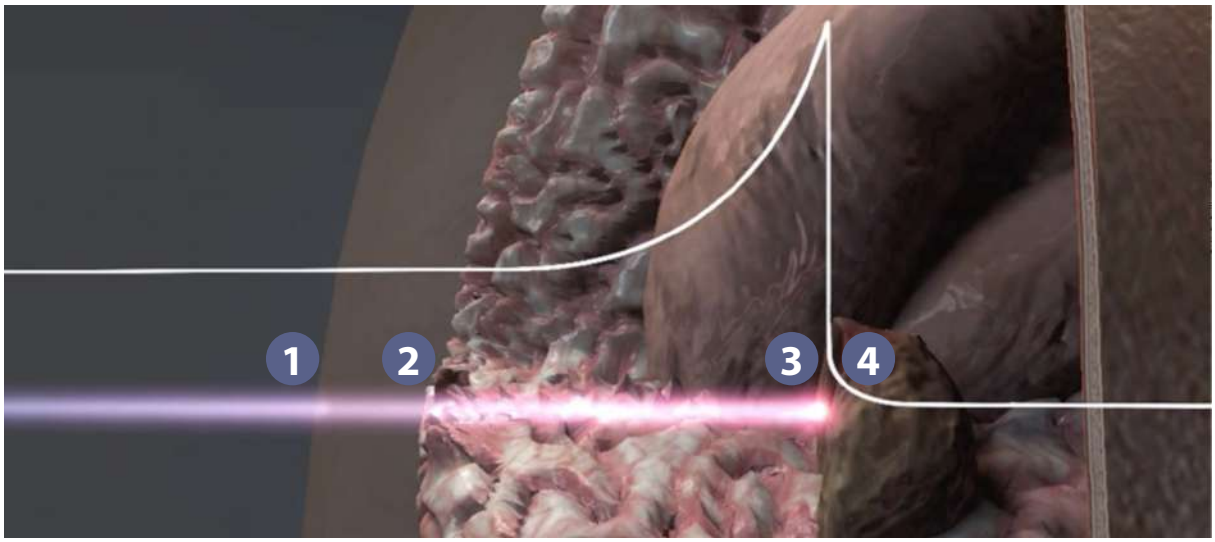
Radiation works by causing ionisation reactions in the nucleus of tumour cells, leading to irreparable DNA damage. The most common radiation therapy today comprises of X-rays beams that deposit their energy along the path of the beam, to the tumour and beyond, resulting in radiation being delivered not only to the tumour but also to the healthy tissues around the tumour. This causes damage to the normal tissue or organs near the tumour.

With proton therapy, it is possible to control the location of the release of the energy and precisely target the tumour, causing the most damage to the targeted tumour cells, while sparing healthy tissues and organs. Because of their velocity, protons produce more dense ionisation near the end of their path in tissue.

From a Nobel prize...



- The energy deposited at a given depth is inversely proportional to the square of the velocity of the particle. This release of energy (or dense ionisation) is called the Bragg peak. Put it simply, this means that protons deposit most of their killing radiation where they stop.
- Protons accelerated with a high energy will stop deeper in the body and will therefore be used for deep-seated tumours. In contrast, protons accelerated with a lower energy will stop closer to the skin and will be used to treat superficial tumours. The particle energy should be a minimum of 50/70 Megaelectron-Volts (MeV) for a deposit close to the entry point (i.e. the skin), while the highest energy of 230 MeV corresponds to a Bragg peak occurring at a depth of 32 cm. The minimum energy is suited for superficial tumours such as ocular tumours. The maximum energy has been selected to allow treatment of a central tumour that would be located at the maximum distance from the ideal entry point in even an obese patient.
- In contrast to X-rays, significant unwanted radiation in healthy tissues is spared with protons.
- The proton was discovered by Ernest Rutherford in the early 1900's. The scientific discovery of the Bragg peak was described by William Bragg. In 1930, the American physicist Ernest Lawrence and his associates were the first to invent the cyclotron to accelerate protons to an energy high enough for cancer treatment applications. He invented the cyclotron in 1929 and developed it as a particle accelerator during the 1930s, winning the 1939 Nobel Prize for physics. A decade later, his advanced version of the synchrocyclotron was capable of producing protons at higher energy. Since then, all the accelerators on the market have used the same circular design.



... to medical application

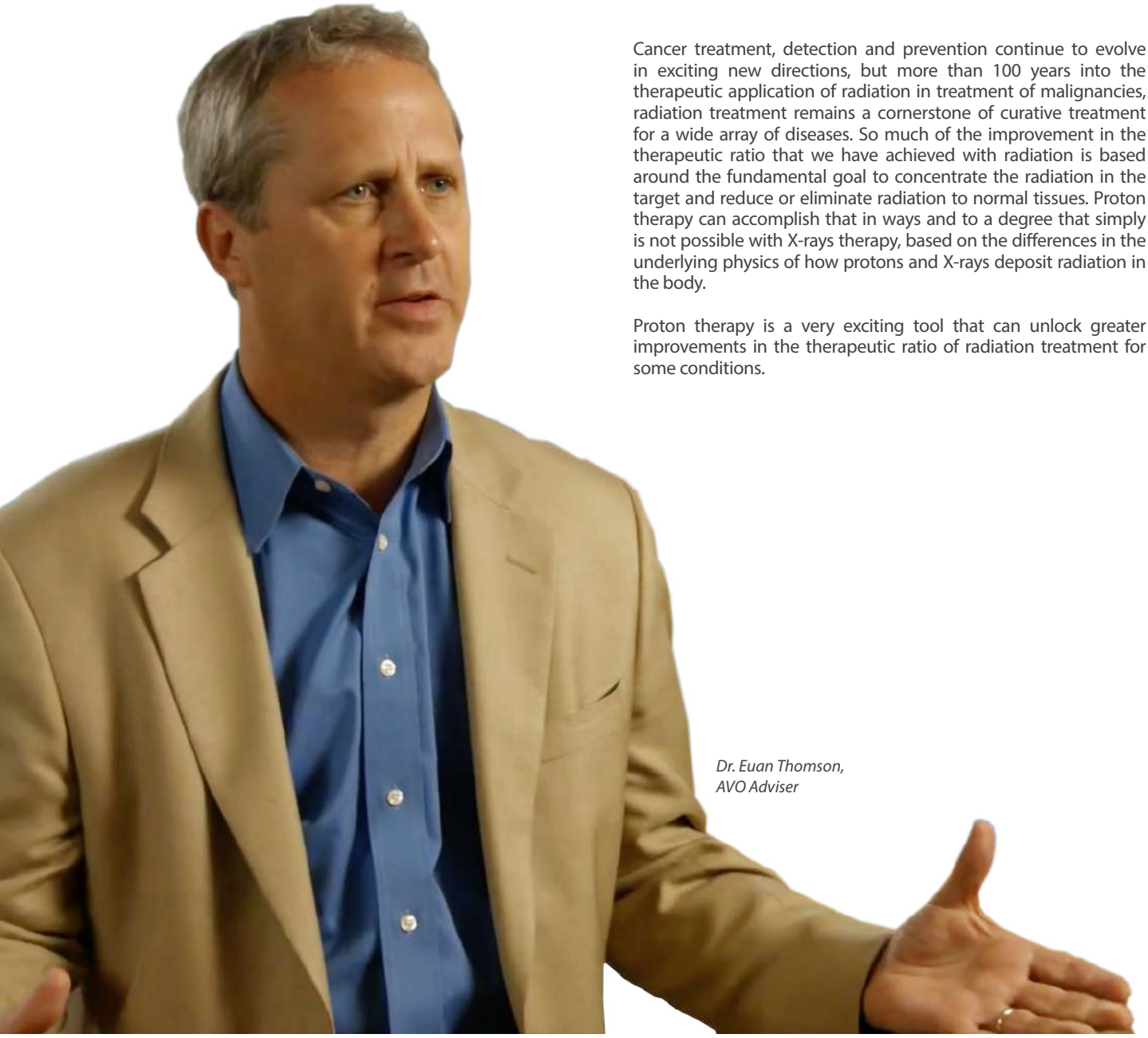
1. A proton beam is just millimetres wide and allows the effective treatment of complex tumours in the eye, brain, prostate, as well as cancers in children with the advantage that healthy tissue and critical organs are more spared than with x-ray therapy.

2. In front of the Bragg peak the radiation dose is low and hence protons deposit little energy to the surface of the body.

3. The energy of proton is set in such a way that the Bragg peak is located at the tumour site. Maximum energy deposition occurs at the Bragg peak.

4. In order to cover an entire tumour volume, proton beams of different energies must be superimposed to create a spread-out Bragg peak (SOBP) that will cover the entire depth of the tumour. These is no radiation beyond the Bragg peak.

Overview of Proton Therapy_continued



Dr. Euan Thomson, AVO Adviser

Cancer treatment, detection and prevention continue to evolve in exciting new directions, but more than 100 years into the therapeutic application of radiation in treatment of malignancies, radiation treatment remains a cornerstone of curative treatment for a wide array of diseases. So much of the improvement in the therapeutic ratio that we have achieved with radiation is based around the fundamental goal to concentrate the radiation in the target and reduce or eliminate radiation to normal tissues. Proton therapy can accomplish that in ways and to a degree that simply is not possible with X-rays therapy, based on the differences in the underlying physics of how protons and X-rays deposit radiation in the body.

Proton therapy is a very exciting tool that can unlock greater improvements in the therapeutic ratio of radiation treatment for some conditions.

Dr Euan Thomson is internationally recognised as an expert in the field of radiation therapy. He has nearly 20 years of experience in research, clinical practice, consulting and corporate management.

Dr. Thomson has served as a scientific and management consultant to many hospitals, specialising in precision radiotherapy techniques and he has worked extensively as a consultant and adviser to manufacturers of radiotherapy products in Europe and the United States. He served as the head of the Radiotherapy Department at the Norfolk and Norwich Hospital in the United Kingdom and as the Chief Executive Officer of Accuray Incorporated, a global leader in radiation therapy devices and the manufacturer of CyberKnife from 2002 to 2012. Further details on his biography can be found on page 52.

Benefits of Proton Therapy

KEY BENEFITS FOR PATIENTS
Proton therapy has the following benefits:

- potential for increased tumour control because of ability to get more effective radiation dose to the tumour;
- a way to safely escalate the dose within the targeted tumour;
- fewer treatment-related, short- and long-term side effects and reduced incidence of secondary tumours resulting from radiation treatment;
- ability to be used in combination with other treatments, such as chemotherapy; and
- can be used to treat recurrences of cancers.

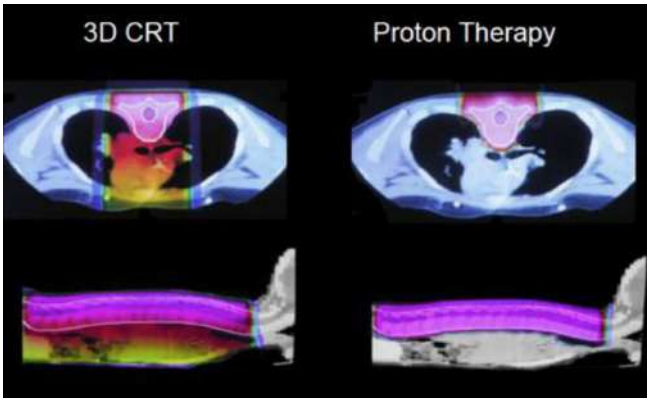
Potential for increased tumour control because of ability to get more effective radiation dose to the tumour
By altering the proton beam's energy level, which determines its velocity, doctors can send it to a particular tissue depth. At that exact depth – at the precise location of the tumour – the protons release their energy. There is very little radiation damage to the tissue surrounding the tumour. By arranging various proton beams of different energies in a three-dimensional volume, doctors can create a burst of radiation that exactly matches the shape and location of the tumour. With protons as the energy source, doctors can target the tumour with a higher level of damaging energy than they can when using X-rays as they do not have to adhere to the lowest common denominator approach in which the amount of radiation directed at the tumour has to be low enough for the surrounding tissue to survive the treatment. This means proton therapy may destroy a tumour in fewer sessions than are required in X-rays therapy, or hypofractionation.

A way to safely escalate the dose within the targeted tumour
Proton therapy is ideal for tumours that are not uniformly shaped and/or situated in areas that cannot handle much radiation exposure. In addition, and because of their unique properties, physicians have the opportunity to safely escalate the radiation dose within the targeted tumour with limited damage.

Fewer treatment-related, short- and long-term side effects and reduced incidence of secondary tumours resulting from radiation treatment
Another significant benefit of proton therapy is that patients experience fewer short- and long-term side effects compared to standard X-rays radiation treatment.

The problem with X-rays as an energy source is that they penetrate through the patient and deposit their maximum energy in normal tissues, not in the tumour. When photons used in X-rays enter the body, they emit a tremendous amount of energy at the point of entrance. That is why X-ray treatment leaves people with a tan at the treatment site – their skin is receiving a lot of radiation. As photons continue into the body, they continue to release energy.

As long as the cancer is somewhere in the path of the X-rays, it receives some of that radiation. But so does the healthy tissue all around it. The tissue damage that results from this type of radiation therapy can cause serious problems for the patient if the tumour is in a particularly sensitive area like the brain, the eye, the lungs, spinal cord or liver. It can cause irreparable organ damage. And for children, any tissue damage can be detrimental to their development.



Side Effects*	Protons	Photons
Restrictive Lung Disease	0%	60%
Reduced exercise capability	0%	75%
Abnormal EKGs	0%	31%
Growth abnormality	20%	100%
IQ drop of 10 points at 6 yrs	1.6%	28.5%
Risk of IQ score < 90	15%	25%

Proton Cause Far Less Damage and Side Effects
** Ref: Presentation Dr. Jay S. Loeffler, NPTC/MGH, ASTRO 2001 Medulloblastoma*

Recent studies reported that the incidence of treatment-related morbidity, including second cancers, cardiovascular disease, fertility complications, and other late effects, is alarmingly high in long-term survivors of cancer (Wilson et al 2005, Carver et al 2007, Armstrong et al 2009, Merchant 2009, Sauvat et al 2009, Newhauser and Durante 2011, Olch 2013). For these reasons, there is increasing interest in exploiting the tissue-sparing capabilities inherent to proton therapy to reduce the burden of treatment-related complications on patients and the healthcare system[7].

Ability to be used in combination with other treatments, such as chemotherapy and immunotherapy
X-rays radiation therapy is often used with other cancer treatments, and protons are no different. Essentially, protons can be used in combination with any other treatment modality, whether it is surgery, chemotherapy, or hormonal therapy. Examples of this, where "combination" treatment is often practiced include many common cancers such as breast, prostate, lung and brain, as well as rarer cancers such as thyroid, eye and salivary gland tumours.

Proton therapy can be used to treat cancer recurrences
Cancer recurrence is often an unfortunate event and part of the natural history of the disease. Protons can be effectively used to treat these recurrences, in exactly the same way that X-rays are used, yet with increased efficacy compared to X-rays. This is because the healthy tissues surrounding the recurrence will have already received significant dose of radiation during the previous X-rays treatments (unlike during previous proton therapy treatments). A recent study was also undertaken to analyse the efficacy and feasibility of proton therapy for the treatment of patients with oligometastatic lung tumours. This study showed that proton therapy was well tolerated and effective.

[7] The physics of proton therapy, 2015, Wayne D Newhauser and Rui Zhang (http://iopscience.iop.org/article/10.1088/0031-9155/60/8/R155)

Proton therapy gives the patient a better quality of life during and after treatment. Its benefits depend on the disease site and the details of an individual patient, but examples can include reducing or eliminating certain side effects during therapy - such as gastrointestinal toxicities after treatment of spine or retroperitoneal tumours, or oral mucositis after head and neck radiation - and reducing risks and complications after treatment, such as cardiac toxicity or radiation pneumonitis in thoracic cancers, or secondary malignancy risks and many other late toxicities of treatment among paediatric and young adult cancer survivors.

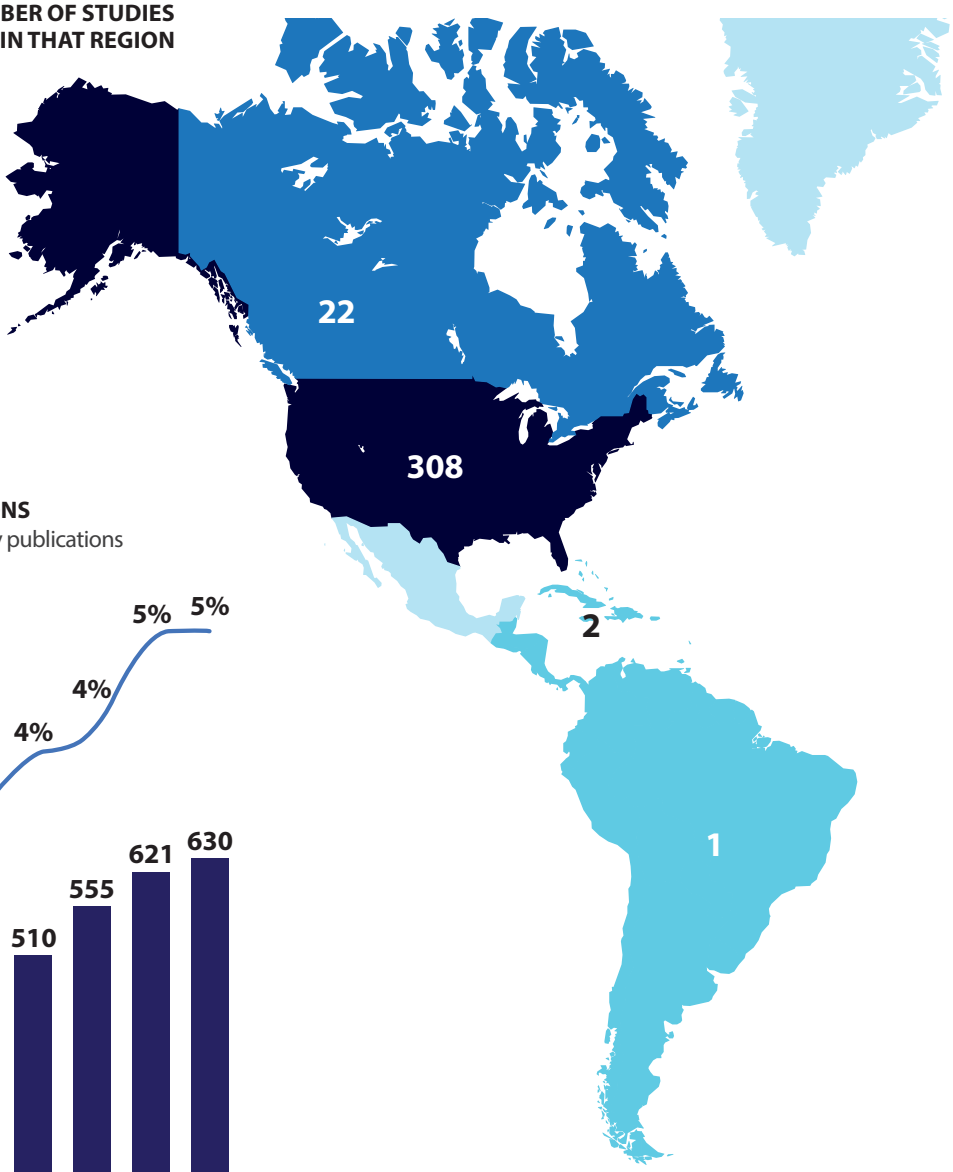
Improvement of the Cost/Benefit Ratio to Drive Market Adoption

MARKET ADOPTION OF PROTON THERAPY IS EXPECTED TO INCREASE AS MORE CLINICAL DATA GET PUBLISHED...

Numerous dosimetric and treatment planning studies have compared dose distributions of conformal photon plans and proton therapy plans for many tumour sites. In general, they have found coverage of the planning target volume to be similar or slightly better with protons, but dose to critical avoidance structures and total integral dose are much lower with protons. In contrast to Intensity Modulated Radiation Therapy (IMRT), a highly conformal photon technique, proton therapy is associated with smaller volumes of normal tissue irradiation. Many prospective non-randomised and retrospective studies have been published, and the body of literature is growing rapidly as more proton centres are opened worldwide.

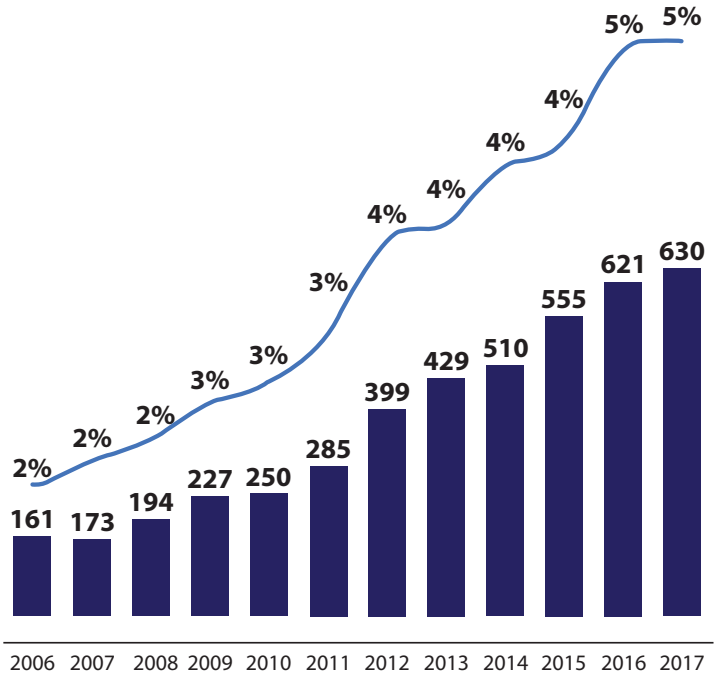
- *Many prospective non-randomised and retrospective studies have been published, and the body of literature is growing rapidly as more proton centres are opened worldwide.*
- *Numerous dosimetric and treatment planning studies have compared dose distributions of conformal photon plans and proton therapy plans. In general, they have found coverage of the planning target volume to be similar or slightly better with protons, but dose to critical avoidance structures and total integral dose are much lower with protons.*
- *There is a growing international trend aimed at extending the availability of proton therapy for a wider use and the benefit of patients.*

COLOURS INDICATE THE NUMBER OF STUDIES WITH LOCATIONS IN THAT REGION



RESEARCH PUBLICATIONS

In numbers and as % of radiotherapy publications



Sources: PubMed, CMS.gov

… BUT THE COST/BENEFIT RATIO NEEDS TO CONTINUE IMPROVING

Although proton therapy is the expanding radiotherapy treatment option of choice for cancer, its cost is currently hindering its worldwide expansion. The ideal application of proton therapy is also restricted by a series of unsolved technical challenges. Both the cost and technical limitations are directly traceable to dependence on legacy accelerators on the market and their associated treatment possibilities.

INDEPENDENT

Living out here under the funding of the NHS has ignited in me an even stronger sense of adoration for our healthcare system. Proton therapy costs around $300,000 for me.

This year I was diagnosed with cancer at 20 and sent to America by the NHS – as I come home for Christmas, here's what I want people to know

While waiting for a coffee to be made here in the US, a cleaner approached me asking if I had cancer (I mean, it's pretty obvious). Her 19-year-old son also had cancer and was being treated a couple of hours away. She was tirelessly working four jobs to help cover the costs that weren't included in her son's health insurance and, because of that, couldn't afford to visit him

Extract from "This year I was diagnosed with cancer at 20 and sent to America by the NHS – as I come home for Christmas, here's what I want people to know" by Dean Eastmond, The Independent, 18 December 2016

EXPRESS

The NHS has only two centres offering proton therapy (one specialising in eye treatments), and every year it sends 400 cancer patients abroad – predominantly to private US-based centres – at a cost of £114,000 per patient.

I'm first person to have proton therapy in the UK

THE first indication there was something wrong came last summer when Simon Hardacre began to feel stressed and run down. Like many men he was inclined to attribute his condition to the wear and tear of life but after encouragement from partner Maria Kose, 40, he went to see a GP.

Extract from "I'm first person to have proton therapy in the UK" by Liz Perkins, Daily Express, 11 July 2018

The average cost is around £90,000 per person. If patients fail to obtain NHS finding, there is the option to pay for treatment themselves, with many now turning to crowdfunding and public donations.

Proton Beam Therapy: What is it, who can have it, is it better than conventional cancer treatments?

Proton beam therapy is hailed by some as the new wonder-treatment for complex cancers. But is it suitable for everyone? We found out.

Extract from "Proton Beam Therapy: What is it, who can have it, is it better than conventional cancer treatments?" by Lisa Salmon, BT.com, 5 August 2016

Labels give the exact number of studies.

Source: U.S National Library of Medicine, clinicaltrials.gov, https://www.clinicaltrials.gov/ct2/results/map?term=proton&recrs=abdef&cond=Cancer&map=

How to Break the Status Quo

Financial impact for the clinic

Revenue	Profit	
• Slow change of energy does not lend itself for hypofractionation (i.e. reduce number of patients' visits) • High pricing (see below) limits the number of patients referred and insured	Significant constraints associated with the installation and the building, which impacts the long-term profitability of the clinic	
	Large shielding	
	Limited opportunities for cost reduction as high volume production is challenging	
	Operating costs can be significant, putting further financial pressure on the clinic	

Treatment cost and number of patients in the clinic

Significant upfront and running costs passed through to patients	
Expensive treatment cost resulting in few indications reimbursed	

Ability of the clinic to fund a project

Limited due to the high treatment cost/low patient throughput and the need to service the debt	

Opportunity for competition to offer leasing arrangements to clinics

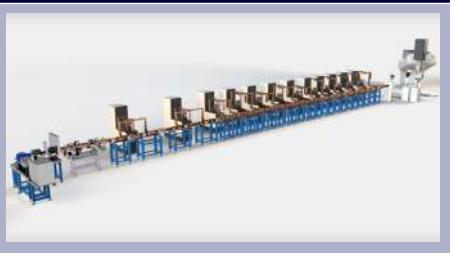
Limited Slow market adoption	

Existing proton therapy systems based on legacy proton circular accelerators

Implications for patients

Only a minority of patients can be treated

LIGHT, an integrated linear modular proton therapy system



Financial impact for the clinic

Revenue	Profit	
Fast change of energy to reduce the number of patients' visits to the clinic, hence increasing patient throughput	Easier to install through module by module integration on site	
	Reduced shielding	
	Modularity opens up opportunities for high-volume production and costs savings	
	Reduced operating costs further enhancing the profitability profile of the clinic	

Treatment cost and number of patients in the clinic

Treatment cost can be significantly reduced, whilst generating profit for the clinic	
With a more affordable treatment cost, more patients can be treated in the clinic	

Ability of the clinic to fund a project

Greatly enhanced, through a higher patient throughput and a reduced dependency on "high-payers"	

Opportunity for AVO to offer leasing arrangements to clinics

A true possibility generating additional streams of revenues Greater opportunity to tap the large demand	

Implications for patients

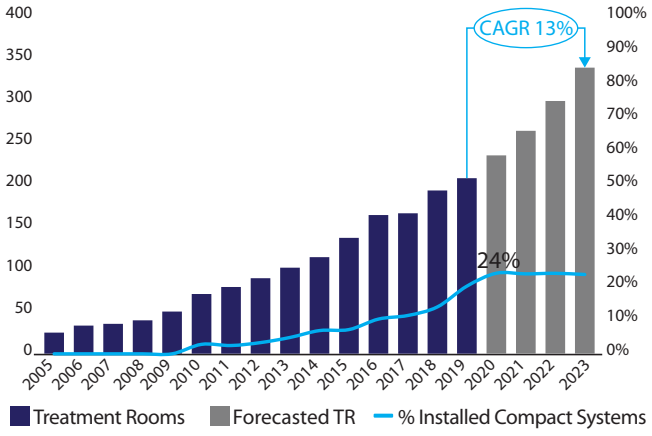
More patients treated worldwide with better medical outcomes

Benefits of Using a Linear Proton Accelerator

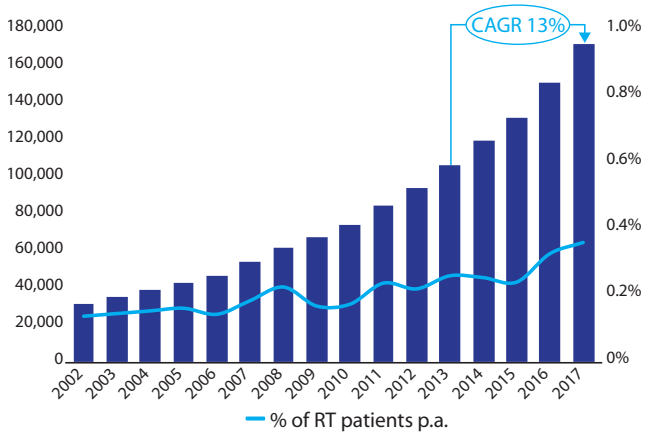
FROM OLD TO NEW SYSTEM GENERATIONS

The process of accelerating protons has evolved from one primarily used to test the limits and possibilities of nuclear physics, to one which can be used to produce effective medical therapies. Robert Wilson, a physicist, became the first to describe the favourable dose distribution profile of protons in 1946 when he proposed that accelerated protons could be used for cancer therapy. The first clinical use of protons was in the United States of America in the 1950s for pituitary hormone suppression in metastatic breast cancer patients. By the late 1950s, high energy proton beams were being studied in animals for lesions of the hypothalamus, cerebral cortex, spinal cord and cerebral hemispheres. In the 1970s, proton therapy was used for uveal melanoma and base of skull tumours, and initial results were reported by the four existing centres at that time in France, Japan and the United States of America. Since that time, proton therapy has been used in the treatment of numerous cancers, including prostate cancer, head and neck cancers, and numerous paediatric malignancies. According to the Particle Therapy Co-operative Group (PTCOG), nearly 170,000 patients worldwide have been treated with proton therapy. There are 81 particle therapy centres in clinical use around the world, as of May 2019, with more under construction and projected to open by 2020.

Installed Base of Proton Treatment Rooms (PTCOG)



Patients Treated at Hospital Based Centres (PTCOG)



BENEFITS OF USING A LINEAR PROTON ACCELERATOR

The use of a proton linear accelerator for proton therapy offers primary advantages and consequential advantages in terms of cost and clinical efficiency. The primary advantages result directly from the inherent properties of a high frequency linear accelerator and are:

- (fast) electronic control of beam energy (depth of dose);
- small transverse beam dimensions (emittance);
- modular design;
- high proton transmission efficiency (low losses in the linac); and
- greater potential for hypofractionation

(Fast) Electronic Control of Beam Energy (Depth of Dose)

In proton therapy, the energy of protons "determines" (i) how deep within the body protons will stop and hence (ii) where most radiation is deposited within the body. The ability to change energy is therefore a key clinical parameter.

Present circular accelerators (cyclotrons and synchrotrons) are limited in terms of energy modulation time by some physical or operational constraints. The energy of protons at the exit of cyclotrons is fixed. In order to obtain different energies, mechanical absorbers (also called "Energy Selection Systems") are moved at the end of circular accelerators into the beam path. In synchrotrons, although the energy gain can be controlled electronically, standard operations are based on single energy extraction during one spill. This technique is complicated and slow.

Due to these complexities and the need to use absorbers, the process of energy modulation in legacy circular accelerators is highly inefficient (i.e. efficiency of less than 2% when treating superficial tumours). This means that significant unwanted induced radiation is created, resulting in very cumbersome and expensive shielding walls around the accelerators. In contrast, the efficiency of a linear accelerator is vastly superior (i.e. above 98%). In a linear proton accelerator such as LIGHT, protons are gradually accelerated as they "go through" each accelerating unit of the machine. Once protons reach the right level of energy, the acceleration process is stopped in an electronic manner. As a result, the electronic control of the beam energy obviates the need for absorbers. This results in a reduction in the radiation shielding requirements and a reduction in the footprint with a concomitant reduction in the amount of land needed. This is particularly important for installation of systems in the centre of large cities.

Furthermore, the control of beam energy associated with linear accelerators is done in an electronical manner and is therefore very fast (up to 200 times per second). In contrast, the energy modulation in circular accelerators is achieved mechanically and hence is much slower (2/3 times per second with circular accelerators). This means linear accelerators are ideally suited for volumetric repainting of the tumour. Volumetric repainting results in a substantial improvement in the conformity of the dose and a reduced number of treatments (fractions). Therefore, the rapid change of the beam energy allows not only faster treatment of "depth layers" of the tumour and a reduced treatment time, but also a much more precise treatment and tracking of moving tumours.

Financially, the effects above allow increased patient throughput resulting in a combination of reduced cost of treatment per patient and higher profitability. In addition, the reduction in the radiation shielding requirements (since there is no need for energy absorbers) result in significantly lower building costs, whilst providing more options to install linear protons accelerators in densed areas.

Small Transverse Beam Dimensions (Emittance)

Proton linear accelerators allow to have a small proton beam size at their exit, which – in turn – reduce the cross-section of the electro-magnets in the High Energy Beam Transfer (HEBT) line. These magnets are therefore smaller, lighter, and cheaper. When the HEBT is placed on a rotating "gantry", the mechanical design of the gantry is greatly simplified and the precision of the rotation angle much improved resulting in smaller and also cheaper magnets and gantry.

The consequences of this primary advantage is that proton beams of small cross-section are readily available for "Pencil Beam Scanning", the preferred modern choice for treatment. In addition, there is considerable research ongoing in the field of "mini-beams" which have the potential of producing even greater dose conformity.

Financially, the benefits above result in significant savings due to opportunity to use (i) much smaller and hence cheaper magnets along the HEBT line and (ii) a simpler and lighter gantry.

Modular Design

Installation costs in a new building site will be increased if large volumes of heavy equipment – such as the ones associated with circular accelerators – must be installed, sometimes by constructing the building around the equipment after installing it. It is a huge cost advantage to have a modular accelerator design which allows installation of reasonably easily handled modules using, for example, service lifts.

It is also clear that a modular design allows installation in existing buildings in the centre of large cities thereby avoiding the, often unacceptable, closure of roads due to the necessity of using heavy weight cranes, etc.

Financially, a modular design results in a significant reduction of the installation and building costs. In addition, the time to build the facility and install the equipment is greatly reduced.

High Proton Transmission Efficiency (Low Losses in the Linac)

Accelerator systems with poor transmission efficiencies produce large amounts of unwanted radiation due to the high-energy particle losses. This efficiency is typically less than 2% with circular accelerators when treating superficial tumours. In contrast and for linear accelerators the transmission efficiency is close to 98% in the high energy sections and therefore they produce very little radiation. This results in:

- additional costs both for the increased volumes of concrete shielding walls and for the additional land acquisition resulting from the increased footprint of the installation; and
- more time for maintenance. Careful preventive maintenance and rapid repair times are needed. Any system repair during the treatment periods should never last more than around two days. This is a difficult criterion to meet with such complex systems. A severe hindrance to the downtime requirement can be caused by proton losses and the resulting induced radiation. If the system has been operated in a "lossy" mode in the period before the breakdown, the levels of radiation may prohibit human access to the equipment during many hours to allow "radiation cool-down".

Furthermore, the level of efficiency has direct consequences on the expensive activation and decommissioning processes. High-energy particle losses, either inside the accelerator or in the energy-reducing absorber, produce unwanted radiation. As described above, this radiation has three costly consequences:

- firstly, the patient and staff must be protected during beam operation by radiation shielding. This shielding can have a thickness of up to seven metres and greatly increases the building costs of the installation;
- secondly, some components will have induced radiation with long half-lives. These so-called activated components must eventually be treated and de-commissioned; this is a very expensive procedure; and
- thirdly, during operation and in the event of a technical fault, it may be necessary to keep the facility closed for several days until the induced radiation has reached a safe level for technical intervention. This reduces the cost-effectiveness of the facility and may have significant effects on treatment efficiency, due to delays in patient treatment.

Clinically, the high transmission efficiency of the proton linear accelerator also allows higher dose rates and therefore fewer treatment fractions: a benefit for the patient.

Financially, the high proton transmission efficiency has a direct impact on cost since it allows to reduce the shielding requirements and the footprint of the installation. In addition, the running of a clinical centre housing a linear proton accelerator is also expected to be smoother and quicker thanks to a simplified maintenance of the accelerator by module.

Greater Potential for Hypofractionation

The total radiation dose is divided into a much smaller number of treatments (fractions). The combination of fast electronic depth control, small transverse beam dimensions, high particle transmission efficiency, fast electronic change of dose density and spot size allows "hypo-fractionation", i.e. a reduced number of fractions (or visits to the hospital) per patient, and potentially FLASH radiation. This is expected to improve the patient's experience as well as allowing a significant increase in patient throughput.

In Summary

The following Exhibit provides a summary of the advantages of using linear accelerators for proton therapy.

Benefits of Using a Linear Proton Accelerator_continued

LIGHT: DESIGNED TO DELIVER BETTER MEDICAL OUTCOMES

IMPROVED DOSE CONFORMITY	• Fast electronic control of beam energy • Fast electronic change spot size • Minibeams	**BETTER CLINICAL PERFORMANCE**
MORE HOMOGENEOUS DOSE DISTRIBUTION	• The electronic control of beam energy (depth of dose) allows for volumetric repainting and active range control	**MORE SUITABLE FOR PENCIL BEAM SCANNING (PBS)**
HIGHER DOSE AND FEWER FRACTIONS	• Extreme dose rate available • Available at all energies > 70 MeV	**ENABLES FLASH**
ADAPTIVE RADIOTHERAPY	• Ideally designed for personalised medicine	**BETTER QUALITY OF LIFE AFTER TREATMENT**

On considering proton accelerators and the match of their inherent beam properties with those beam requirements for particle therapy, there is a definite advantage of using the linear accelerator (linac) over circular accelerators. Consequently, LIGHT - the AVO's flagship product and the first proton linear accelerator-based system - is uniquely poised to reduce the overall system cost, not only capital cost, but also operational and building costs. The major advantages come from the inherent linac ability to electronically control the beam energy at a fast rate, the high efficiency of transmission of particles, the modularity, as well as the small beam emittance. With best in class beam emittance, linacs also enable lightweight and reduced-cost beam transport systems. Reduced spot size, precise spot placement in three dimensions and fast volumetric rescanning will drive hypofractionation (i.e. reduced number of patients visits) and potentially FLASH. The combined effect of these factors will allow proton therapy costs to approach those of X-ray therapy. This will drive rapid expansion, providing greater patient access. With the reduced medical follow-up burden due to recurrences and management of undesirable treatment effects, it will be a great win for society, and especially for patients and their loved ones.

CLINICIANS - At the forefront of our thinking

We have been working on the design of our system for more than 25 years. We realised that the market lacked a truly integrated system. We found that, more often than not, systems had some features but lacked others, or did not integrate fully as one seamless user and clinician-friendly unit.

We decided to tackle this problem head on when we designed our system. We consulted worldwide experts. We spoke to patients. Our team identified some of the key drawbacks and in particular the lack of usability that many operators experienced in the clinical setting. We built answers and we built solutions when we designed our system.

Overview of the LIGHT System

The LIGHT solution offers a novel proton solution that provides a user and workflow design and implementation to serve the needs for treating patients with proton therapy.

At the clinical level, the LIGHT solution is designed to provide all the services to ensure an optimal treatment plan specific to the patient based on accurate imaging and modeling of competing treatment plan approaches. All LIGHT solution services are designed to be inter-connected and ensure that each service and component is ready and up-to-date to process any treatment changes in the patient.

The LIGHT solution aims to provide the highest quality treatment as quantified by dosimetric indicators that measure target coverage and healthy tissue sparing as well as quantified operational efficiency and user operability.

The LIGHT accelerator is the foundation for this solution. Its beam quality, primarily the small beam and very fast energy change capability, removes many constraints in the delivery of the optimal treatment plan. First and foremost, the LIGHT beam delivers dose over the full clinical range from sub-cutaneous depth to deep within the patient without the necessity of range-shifting elements close to the patient. Secondly, the very small proton beam, even at the lowest energies, creates the opportunity to deliver small spots and large spots of protons, the latter being more relevant for the rapid fill of large targets. Thirdly, the small beam removes the need for the use of apertures or multi-leaf collimators to restore the poor edge in other technologies.

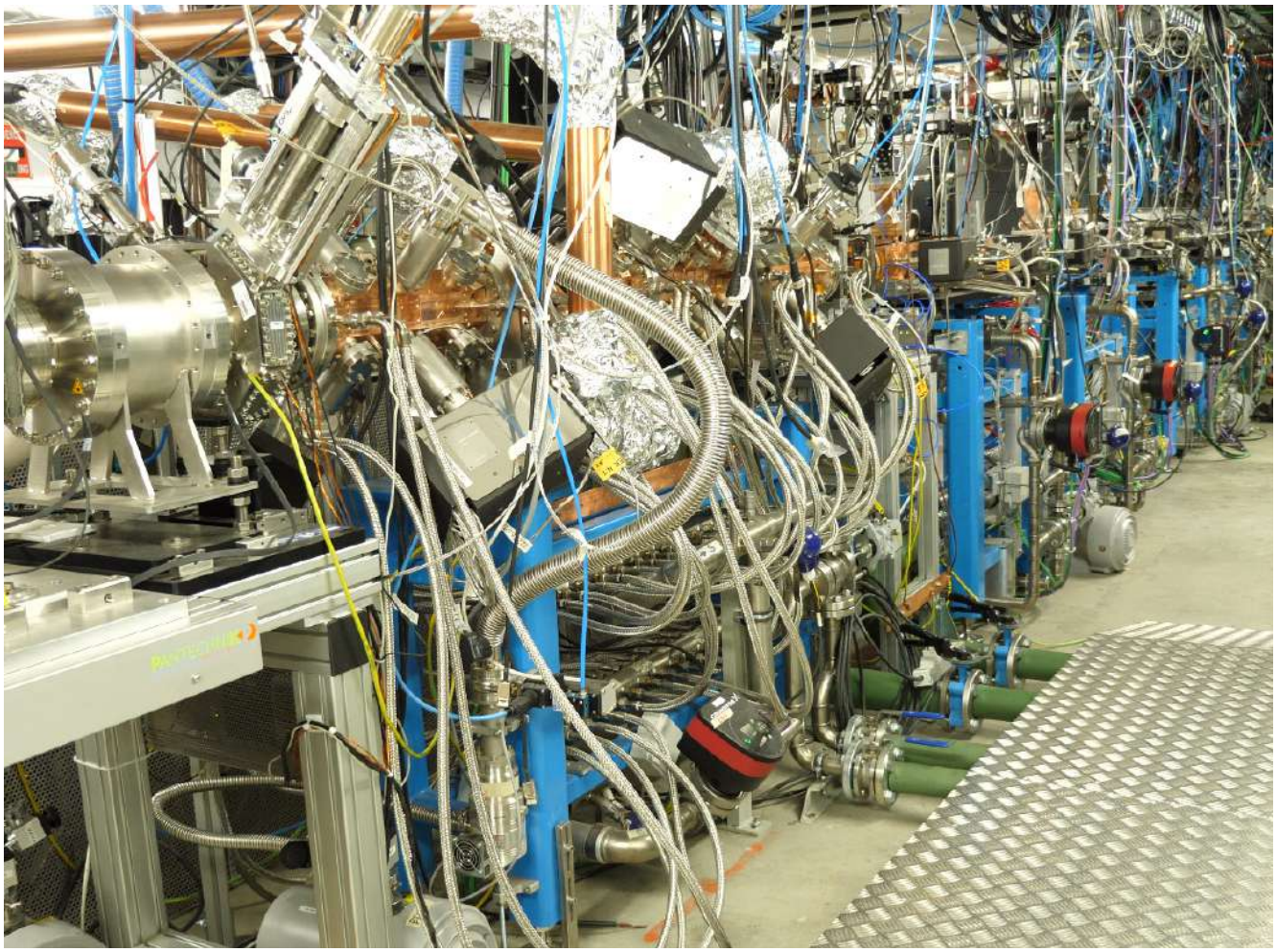
The LIGHT solution thus is an optimal system to deliver conformal doses within a target.

The LIGHT solution provides a large-field scanning system (up to 30x40 cm^2 or an irradiation volume of 30 litres) which significantly removes the need to change the patient position during a treatment session (at significant overall reduction of treatment time) and permits treatment of multiple targets simultaneously.

Finally, the very fast energy switching time is ideal for both adaptive treatments and motion tracking. These features will be exploited to deliver the LIGHT solution that exceeds current offerings in the market.

Robotic arm, Leoni

Sliding CT scan mounted on top of patient couch system, P-cure



LIGHT is the acronym for Advanced Oncotherapy's Linac Image Guided Hadron Technology: it is the first commercial linear proton accelerator dedicated to the treatment of tumours. It is at the core of the proton facility being designed by AVO. This next generation of proprietary particle therapy systems harnesses the best in modern technology and is the key focus of the Company. LIGHT is a direct medical application of the high energy particle physics research by ADAM (now a fully owned subsidiary of the Company). LIGHT accelerates protons up to 230 MeV and is the result of more than 25 years of work at CERN.

LIGHT, a City-centre Solution

Harley street project in London

One of the things that we set out to achieve is the development of a compact system which can be installed in a clinical site in a city centre. After all, many teaching hospitals and academic institutions are based in the heart of our cities and in areas where the population is at its densest.

When we set out on our mission, we realised that the challenge we faced would be to design a system which could be compact and easy to install.

Our goal was to be able to install in an existing facility without having to construct larger, purpose-built facilities from scratch and without incurring large de-commissioning costs anticipated with circular accelerators.

We have achieved this with LIGHT – compact, modular and easy to install. Our first system will fit into two existing mews houses in Harley Street in central London.

Strategic Partners with "Skin in the Game"

INTRODUCTION
In line with the strategy of the Company the manufacturing plan supports speed to market and is closely linked to the ongoing Research and Development activities of ADAM. AVO aligns its manufacturing policy and practices with established world class specialised medical device and equipment providers, assembling the LIGHT system on a modular build plan. An outsourced manufacturing and specialised supply chain – based on a long-term partnership model – is at the core of AVO's system delivery and support network.

SUPPLIERS / PARTNERS
The main manufacturing plan and strategy is to support a safe and smooth product/system launch into the market place. To do so, the Company has engaged with world class partners and suppliers, currently used and certificated by the medical, scientific, defence and aerospace market place. These partners and suppliers enable AVO to fast track under certification the main line manufacturing. In engaging and commissioning AVO's partner / supplier base, the following criteria have been followed:

- required and audited full ISO certification;
- certification and/or disciplines in place with independent verification where required;
- past prototype build and cost reduction ability;
- technical and engineering product support;
- IP protection and security, in place at all times; and
- drawings, technical detail and Bill of Materials adherence and maintenance.

OVERVIEW OF THE SUPPLY CHAIN
To develop an efficient and reliable supply chain, the Company is focused on every aspect of the product development process such that each of them is aligned with the manufacturing and quality assurance strategy. In doing so, the management team has selected suitable supply partners. It has also ensured that there is a robust contract management process supported by an effective and rigorous supply control.

The medical devices supply chain generally consists of four main segments: R&D, manufacturing, logistics and supply, patients and customers. As such, the focus of the Company is to ensure a strong, effective and diverse range of interactions with the relevant third-party stakeholders, is maintained within each segment of the value chain. With regards to manufacturing, AVO is committed to working with the best-known industry players who either have equipment and components that meet approved specifications and are available off-the-shelf or can be made-to-order. These suppliers and distributors have (i) strong capabilities for manufacturing, logistics and warehousing, and (ii) delivery strategies that enable the Company to deliver the LIGHT system in the safest, quickest and most economical and reliable way to the final end-customer. The Company has developed collaborative agreements with these partners, focusing on value-adding activities and working with them to eliminate inefficient practices throughout the supply chain.

The Company has put in place a process of protecting engineering design data through the use of comprehensive contractual terms to manage the interactions with the supply partners.

To manage third-party commitments whilst seeking options to gain more flexibility and better financial terms across the whole value chain, the Company is continually developing relationship with suppliers.

VERIFICATION AND VALIDATION SITE AT DARESBURY, UK

In May 2018, the Company signed a lease with the UK Government's Science and Technology Facilities Council (STFC) to establish a testing and assembly site for its LIGHT system at the STFC Daresbury Laboratory in Cheshire. This facility is used to assemble the first LIGHT system capable of accelerating protons to the full 230 MeV required for effective proton therapy treatment of deep seated tumours. This site is used to complete the verification and validation of the LIGHT system ahead of its submission for regulatory approval, before it is relocated and installed at the first commercial site in Harley Street.

As part of this agreement, STFC provides access to an established and certified facility supported by a strong reputation for the research, development and operation of particle accelerators, with the use of a high-tech site providing advantages in both cost and timescale, but also additional risk diversification with a production facility option. The Daresbury laboratory is also home to the Accelerator Science and Technology Centre (ASTeC) and Cockcroft Institute of Accelerator Science and Technology, with STFC acting as a partner in the installation and upgrading of the Large Hadron Collider at CERN in Geneva.

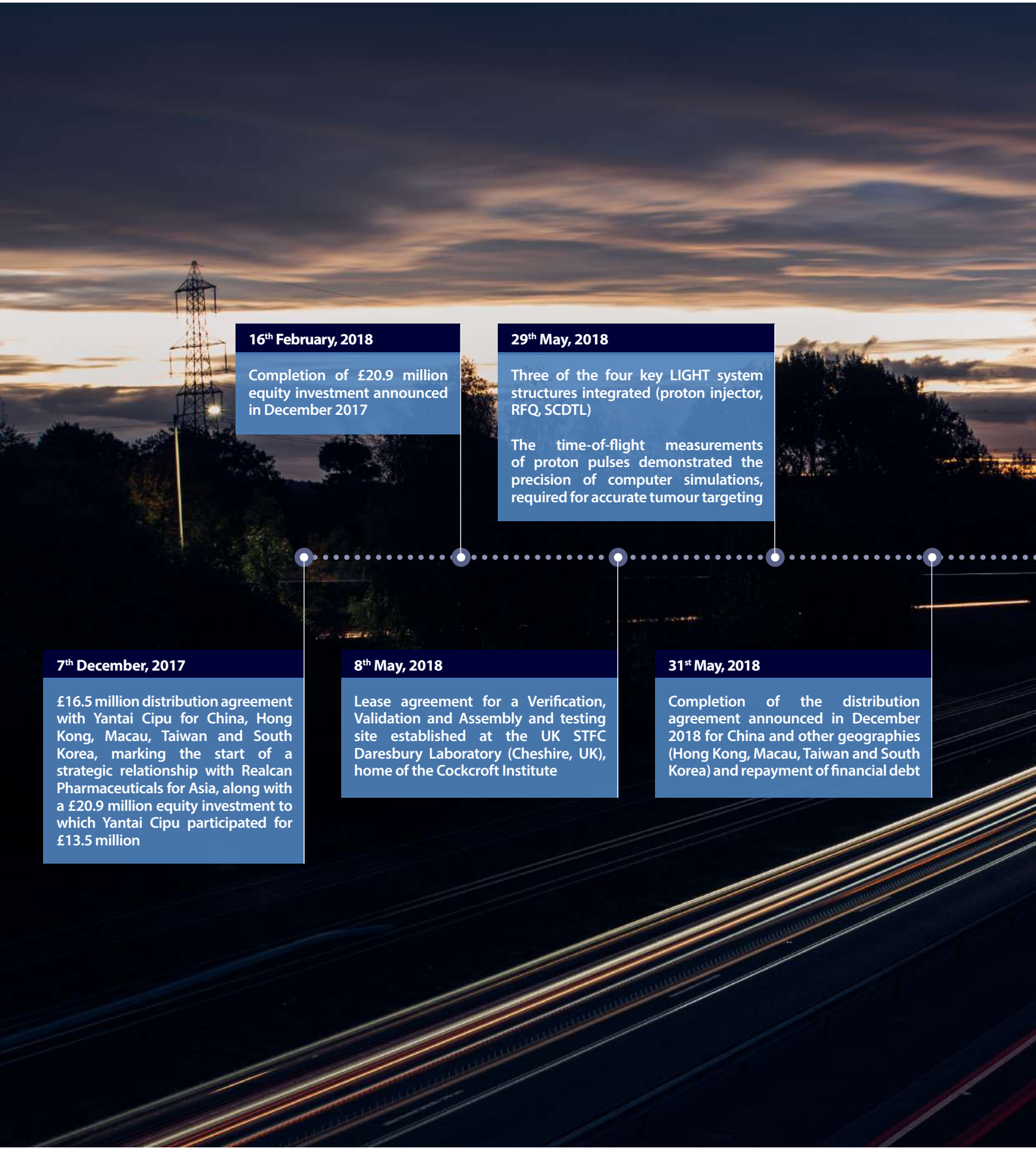
The Company aims at further streamlining the LIGHT system production process, with the opportunity to scale up the manufacturing infrastructure through the set-up of additional assembly sites. The initial plan relies on the ability to produce and assemble eight LIGHT systems per year in the first instance.

The Company will also maintain its R&D activity in Geneva where it continues to advance the development of its LIGHT system.

The agreement with the Science and Technology Facilities Council is an important step towards the construction of the first fully operational LIGHT system, to be constructed within the UK's accelerator research and innovation hub. Having a facility with established infrastructure, a certified site and a huge wealth of shared knowledge in the area of accelerators allows the Company to quickly move forward the construction of the first commercial LIGHT system in a cost-effective way.

The Daresbury Site

A Year of Consolidation and Technical Achievements



7th December, 2017

£16.5 million distribution agreement with Yantai Cipu for China, Hong Kong, Macau, Taiwan and South Korea, marking the start of a strategic relationship with Realcan Pharmaceuticals for Asia, along with a £20.9 million equity investment to which Yantai Cipu participated for £13.5 million

16th February, 2018

Completion of £20.9 million equity investment announced in December 2017

8th May, 2018

Lease agreement for a Verification, Validation and Assembly and testing site established at the UK STFC Daresbury Laboratory (Cheshire, UK), home of the Cockcroft Institute

29th May, 2018

Three of the four key LIGHT system structures integrated (proton injector, RFQ, SCDTL)

The time-of-flight measurements of proton pulses demonstrated the precision of computer simulations, required for accurate tumour targeting

31st May, 2018

Completion of the distribution agreement announced in December 2018 for China and other geographies (Hong Kong, Macau, Taiwan and South Korea) and repayment of financial debt

28th August, 2018

New Board appointments and adoption of QCA code of governance

2nd August, 2018

£6.4 million equity investment, involving Swiss private banks and clinical healthcare services operators

27th September, 2018

The accelerator has successfully generated a beam with sufficient energy to treat a simulated clinical case

Successful planning of a periocular tumour case based on the proton beam produced by LIGHT

AVO's strategic partner for the treatment software suite, RaySearch AB, provided its Treatment Planning Software platform to show a steep decrease of the radiation levels directly next to the tumour site thanks to LIGHT

10th October, 2018

All four key LIGHT system structures integrated (proton injector, RFQ, 4 SCDTL units, and 2 out of 13 CCL units); proton beams generated with an energy of 52MeV

RaySearch selected to provide the Oncology Information System

The Treatment room is undergoing testing in Tel Aviv

21st December, 2018

Announcement of £10.0 million equity investment, to which Paris-based DNCA Investments participated for £4.8 million

Invited employees to participate in the Company's 2018 SAYE Option Plan as approved at the AGM

A Four Pronged Strategy for Achieving Widespread Adoption of LIGHT

Advanced Oncotherapy has a four pronged strategy for achieving widespread adoption of its LIGHT system in the fast-growing multi-billion radiotherapy market.

Strong progress has been made in each of these areas. All four elements are necessary to achieve major success.

Our strategic aims
Advancing the technology development and manufacturing of the first LIGHT system
Securing regulatory approval of the first linear proton system across all key markets
Establishing assembly and Verification and Validation site with the view of addressing the significantly untapped opportunity
Establishing partnerships with large healthcare distributors for market deployment and laying the foundations for pipeline delivery through purchase orders and scientific publications

What we achieved
• Design of all accelerating structures of the LIGHT accelerator validated • All for types of accelerating structures successfully integrated • Energy produced to treat superficial tumour • Development of the medical hardware and software
• Receipt of the ISO-13485 certification, a pre-requisite for selling a medical device • Identified partners to support the CE marking process in Europe; partnership with University Hospitals Birmingham NHS Foundation Trust, University of Birmingham and STFC
• Agreement with STFC for setting up a Verification and Validation centre in Daresbury, UK • STFC is a long-term partner of CERN; it is a world-leading science UK-governmental organisation whose mission is to deliver economic, societal, scientific and international benefits to the UK and to the world • Opportunity to leverage the manufacturing base and assemble eight machines per year; significant cost saving opportunities already identified; manufacturing of all components of LIGHT outsourced to world-class OEMs
• Partnership with Realcan which acquired the distribution rights for China, Hong Kong, Taiwan, Macau and South Korea for £16.5 million (subject to targets) • This partnership places AVO in a unique position to help Asia and China leapfrog their way into the future of the enormous radiation oncology market; 11 Chinese sites have already been identified • Advanced discussions across other regions, including the US, Europe and the Middle East • Worldwide commercial effort led by Moataz Karmalawy, an industry veteran who joined the Company in April 2019 from the market leader in radiation, Varian, where he was head of their Particle Therapy Business

Principal Risks and Risk Management

TECHNICAL RISK

Being at the forefront of technology means the Group needs to address and pre-empt a number of technical risks early on. The research and development team - whose outputs rely on validated technology (LIBO) - has identified the main technological risks and performs focused studies to ensure the underlying concepts remain viable with improved clinical outcomes.

SCHEDULE RISK

Many complex medical projects are exposed to risks of potential delays. The Group is working with well-accredited suppliers and building companies, forming a network of close stakeholders, responsible for identifying critical elements of the project and having contingency in place.

ORGANISATIONAL AND REGULATORY RISK

As a fast growing company in a strongly regulated industry the Group needs to ensure its operational set-up meets the regulatory requirements of a medical device organisation, without becoming slow and bureaucratic. Advanced Oncotherapy does that by the timely deployment of processes and procedures which is as light as possible and as strict as needed.

FINANCIAL RISK

The Group's financing requirements depend on numerous factors, including the rate of market acceptance of the LIGHT system and the ability to attract and retain customers. The Group may be unable to obtain adequate funding on acceptable terms. The Group will, in the future, need to raise further equity or debt funds to fulfil its objectives and/or finance working capital requirements through future stages of development. To address this risk, the Group has a rigorous cost control system and it continually monitors opportunities which provide financing flexibility in order to deliver on its strategic priorities. The Group also prepares short term and medium cash flows to ensure that the business has adequate funding to execute its business strategy.

PEOPLE RISK

Advanced Oncotherapy is a company of "knowledge" whose strengths rely on the understanding of complex concepts. The Group has implemented initiatives to attract and retain highly skilled and talented employees. AVO works together with experienced HR professionals who understand the different needs across the various division and functions coupled with rigorous succession planning, to ensure replacement is prepared should any of the employees become unavailable.

The Board is ultimately responsible for determining the Group's risk appetite and for ensuring that the risk framework and management processes are appropriate and operating effectively.

	Identified Operational Risks	Mitigation Plan
Accelerator hardware	System integration complexity and performance adjustments	Project management plan designed by external advisers in place and implemented and dual suppliers in place for key components (e.g.: TSC / VDL)
System software	Modelling complexity proprietary software, subcontractor performance and suitability of pre-selected commercial solutions	Solution scouting programme to identify suitable alternatives, robust testing/modelling in place and collaborations with leading institutions established
Treatment room	Positional and rotational accuracy and subcontractors performance	Mitigation plan designed in collaboration with subcontractors and all hardware with relevant certifications in place
System integration	System performance in final configuration	Robust system architecture review process, project management plan designed by external advisers implemented
Installation at Harley St.	Building timeline, commissioning process and qualification of operational personnel	Team with strong track-record in proton therapy installations already in-place; key contractors are incentivised to meet deadlines
Regulatory approval	Proving equivalence to current marketed standards including efficacy and safety	Constant dialogue with regulatory bodies in place supported by a project management plan designed by external advisers

Nicolas Serandour
Chief Executive Officer
27 June 2019

GOVERNANCE REPORT

A Board of Directors Bringing Extensive Market Expertise

Dr. Michael Sinclair
Executive Chairman

Appointment date:
June 2006

Brings to the Board:
Michael Sinclair brings over 40 years of experience in top executive positions in the healthcare business.

Past role
Before creating Care Capital (now Advanced Oncotherapy), Michael Sinclair held various executive positions including Executive Chairman of Miranda plc (2001-2009), of the Atlantic Medical Group (1994-2001), of Lifetime Corporation (1986-1993), and of the Hospital Capital Corporation. He also founded Allied Medical Group/Allied Investments. Michael Sinclair previously held a number of appointments at teaching hospitals in London.

Other key commitments:
- Non- Executive Chairman of Symthera Inc
- Non- Executive Director of Opiant Pharmaceuticals Inc.
- Member of the Board of various educational non-profits

Dr. Peter Sjöstrand
Non-Executive Director and Vice-Chairman of the Board

Appointment date:
August 2018

Brings to the Board:
Peter Sjöstrand has wide experience from top positions in both the pharmaceutical and med tech industry in operative roles as well as representing investors.

Past role:
Peter Sjöstrand was Executive Vice President and CFO of the Astra Group and served on the Astra Board (1976-1993) first as Secretary and then as Deputy Member. He also acted as Non-Executive Board member in many public and private companies. He was e.g. the chairman of Gambro (2006-2010) and Meda (2000-2009) and Board member of Pharma Vision (1993-2000) and member of the Carlyle European Advisory Board (1996-2000).

Other key commitments:
- Chairman of the Foundation Oscar Hirsch´s Memory
- Member of the Board of Acturum
- Member of the Board of Active Biotech
- Member of the Board of SAMF
- Member of the Board of Disruptive Materials

Mr. Michael Bradfield
Non-Executive Director

Appointment date:
April 2013

Brings to the Board:
Michael Bradfield brings over 30 years of experience in direct marketing and the insurance industry.

Past role:
In 1971 Michael Bradfield founded Hospital Plan Insurance Services and was CEO of the company until 2006. It was sold to AIG in December 2000. He is currently Chairman of Fairford Medical Ltd, Fairford Medical Services Ltd, Health Imaging Solutions Ltd and Quest Medical UK Ltd, all active in the Diagnostic Medical Imaging field. He is also Chairman of Fairford-Capital Ltd. He was previously Chairman and CEO of Acacia Asset Management Ltd, Hamilton Capital Management Ltd and Acacia Trust Ltd.

Other key commitments:
- Director at Stockgain Asset Management
- Director at Henstridge Properties Ltd
- Director at the Vail Foundation
- Chairman at Fairford Capital Ltd
- Director at The Covenant & Conversation Trust (registered charity)

Mr. Hans von Celsing
Non-Executive Director

Appointment date:
January 2017

Brings to the Board:
Hans von Celsing has over 30 years of experience in the medical technology sector, managing the development of several companies.

Past role:
From 2008 to 2016, Hans von Celsing has acted as an adviser to Mevion Medical Systems Inc. Before that he was Executive Vice President responsible for worldwide operations and business of Elekta AB (1985-1999). He is also the co-founder of Neuroventures Capital.

Other key commitments:
- CEO of Plasma Surgical
- Executive Chairman of Clinical Laser Thermia Systems AB
- Part-time consultant at Berkshire Investment Management
- Executive Chairman of Gelexir Healthcare Ltd
- Chairman of Peptonic Medical
- Chairman of Partner Fondkommission AB

Mr. Chunlin Han
Non-Executive Director

Appointment date:
August 2018

Brings to the Board:
Chunlin Han brings a rich experience in distributing products in the Chinese healthcare market.

Past role:
As Head of Investment and Financing for Realcan Pharmaceuticals, a large distributor of medical drugs and equipment in China with access to more than 8,000 hospitals and 33,000 primary medical institutions, Chunlin Han has been instrumental in acquiring more than 50 distribution companies and participated in 3 joint-venture investments. He is a graduate of McGill University.

Other key commitments:
- Head of Investment & Financing and Assistant to the President of Realcan Pharmaceutical Co.,Ltd.
- Executive Director of Liquid Harmony Limited
- Manager of Shanghai Henghua Health Consulting Co., Ltd
- Limited Partner at Hangzhou Ruilin Ynovo Investment Partnership (Limited Partners)

Dr. Yuelong Huang
Non-Executive Director

Appointment date:
August 2018

Brings to the Board:
Yuelong Huang has over 20 years of experience in R&D, manufacturing and operations in high-tech industries.

Past role:
Yuelong Huang has been a Senior Scientist of German Julich Research Center (2006-2008). From 2000 to 2013 he acted as the core technical expert and deputy general manager at Baoding Tianwei Thin Film Photovoltaic Co., Ltd.

Other key commitments:
- General manager of Medical Technology Department of Realcan Pharmaceuticals Co.,Ltd, responsible for all M&A activities and medtech R&D/ manufacturing
- General Manager at Jiangyin Sino-German Technology Transfer Center
- Director at Jiangyin BinLong Technology Co.Ltd
- Executive Director and General Manager of Hangzhou Ynovo Investment Management Co. Ltd

Prof. Steve Myers, OBE
Executive Director and ADAM Executive Chairman

Appointment date:
November 2015

Brings to the Board:
Steve Myers, a world-class expert in accelerator physics, has vast experience in accelerator physics as CERN Director of Accelerators and Technology.

Past role
At CERN since 1972, Steve Myers became the leader of the CERN Accelerator Beams Division in 2000 and the Director of Accelerators and Technology in 2009. From 2014 to 2016 he was the Head of CERN Medical Applications. Steve Myers is an Honorary Member of the European Physical Society and of the Royal Irish Academy; he has won the Duddell Medal, the Prize of the Institute of Physics; he was awarded the EPS Edison Volta Prize and the Prince of Asturias Prize of Spain.

Other key commitments:
- Honorary Professor of Queen's University Belfast
- Chair of the Advisory Committee for the John Adams Accelerator Institute in Oxford
- Chair of the Advisory Committee for the Cockcroft Accelerator Institute
- Member of the Culham Centre for Fusion Energy (CCFE) Advisory Board
- Member of the EU review Board for the "Russian Mega-Science projects"

Dr. Nick Plowman
Non-Executive Director and Chairman, Medical Advisory

Appointment date:
February 2017

Brings to the Board:
Nick Plowman's experience in new radiation techniques and paediatric radiotherapy is second to none.

Past role:
Nick Plowman is a pioneer for the use of lens sparing ocular radiotherapy, linac based radiosurgery, Gamma Knife, IMRT, and Cyberknife. He has written on many critical appraisals of new and existing techniques and has published 20 research papers on intracranial and spinal radiosurgery. Dr Plowman part funds a laboratory project at Brunel University exploring DNA repair mechanisms with particular regard to irradiated tumours.

Other key commitments:
- Head of Clinical Oncology at St Bartholomew's Hospital
- Senior Clinical Oncologist to the Hospital for Sick Children at Great Ormond Street ("GOSH") in London
- Director of The CyberKnife Centre London on Harley Street
- Director at Intuition Communication Ltd.

Mr. Nicolas Serandour
Chief Executive Officer

Appointment date:
October 2016 (at AVO since 2014 as CFO and then COO)

Brings to the Board:
Nicolas Serandour brings over 15 years of experience providing strategic and financial advice to senior executives at leading healthcare companies internationally.

Past role:
Nicolas Serandour has vast experience in investment banking and in providing strategic and financial advice to the healthcare industry. He has advised companies from the healthcare industry on Mergers and Acquisitions, from 1999 to 2005 at JP Morgan, from 2005 to 2008 at Lehman Brothers London, and from 2008 to 2014 at Lazard London, where he also became the Head of Healthcare Europe.

Other key commitments:
- n.a.

Prof. Gabriel Urwitz
Non-Executive Director

Appointment date:
August 2018

Brings to the Board:
Gabriel Urwitz has held top executive positions in the financial industry and brings top notch financial management skills.

Past role:
He was the CEO of Gota Bank (1989-1992), of Proventus AB (1984-1989), of Richard Hagglof Fondkommission AB (1980-1984), and the Vice-president of the Head office for Domestic Capital at Skandinaviska Enskilda Banken Markets (1977-80). From 1977 to 2002 he was adjunct Professor of Financial Economics at The Stockholm School of Economics.

Other key commitments:
- Founder and chairman of AB Segulah
- Board member of Lokalddningen Mitt i Stockholm AB
- Board member at Semantix
- Chairman of several non-profit and academic organisations

Dr. Enrico Vanni
Non-Executive Director

Appointment date:
October 2013

Brings to the Board:
Enrico Vanni has more than 30 years of experience in healthcare management, both as a consultant and a Board member.

Past role:
He has acted in various positions at the Geneva office of McKinsey & Co., first as a consultant, then Project Leader, Head of Geneva office and finally Senior Partner specialising in Pharmaceuticals, Consumer goods and Finance. Before that he was a research engineer at IBM (1977-1978) and an assistant in Chemistry at University of Frankfurt (1978-1979).

Other key commitments:
- Independent consultant
- Vice-Chairman of the Board of Directors at Novartis
- Member of the Board of Mbp, Private Banking
- Member of the Board of D&P, Management Resources
- Member of the Board of Eclosion 2, Private Equity in Life Sciences
- Chairman of the Risk & Compliance Committee at Lombard Odier

Mrs. Renhua Zhang
Non-Executive Director

Appointment date:
August 2018

Brings to the Board:
Renhua Zhang has acquired a broad experience in the Chinese medical and pharmaceutical market.

Past role:
Renhua Zhang is the Co-Founder, CEO, and Vice Chairman of the Board of Realcan Pharmaceutical, a large distributor of medical drugs and equipment in China with access to more than 8,000 hospitals and 33,000 primary medical institutions. Formerly Director of Nursing of one of China's leading regional Hospital Systems, she graduated in Business Administration from the Shandong Television Broadcast University.

Other key commitments:
- Co-founder and CEO of Realcan Pharmaceutical Co., Ltd.
- Supervisor at the Shandong Ruixiang Dental Hospital Co., Ltd.
- Supervisor at Shandong Chengen Investment Co., Ltd.
- Director and General Manager at Shandong Realcan Pharmaceutical Distribution Co., Ltd.
- Executive Director at Yantai Ruiyou Investment Co., Ltd.

Executive Team with a Unique Track-Record

Dr. Michel Baelen
Director, Regulatory Affairs

- +17 years of experience in Regulatory and Quality for proton therapy
- Former Head of Regulatory Affairs and Quality Assurance at IBA
- Former Quality Coordinator at the University Hospital Saint-Luc at the Catholic University of Louvain

Bridget Biggar
HR Director

- Fellow of the UK Chartered Institute of Personnel and Development
- Masters in Applied Positive Psychology from the University of Pennsylvania
- 13 years as an employer representative on the Employment Tribunal Board of England and Wales; has been an HR Director in various start-ups

Dr. Jonathan Farr
Chief Clinical Officer

- +14 years of Radiation Physics experience across USA and Europe
- Former Chief of Radiation physics and Associate Professor at St. Jude Children's Research Hospital
- Current Privat Dozent at University of Essen-duisburg and chief medical physicist at WPE
- Author of many peer-reviewed publications on advances in proton, other particles and photon radiotherapy

Dr. Manuel Gallas
Technical and Engineering Director

- + 10 years managing high tech product design and development, management of technology innovation and R&D across a broad area of expertise
- Ph.D. in High Energy Physics and an eMBA in Management of Technology, Innovation, and Entrepreneurship
- Fellow then Staff at CERN from 1999 to 2008 working on the PS-DIRAC proton experiment and the ATLAS Large Hadron Collider (LHC), Higgs-searching experiment

Louise Harley-Smeur
Senior Vice-President, Intellectual Property

- European Patent Attorney and Head of the Intellectual Property Department
- Working in IP since 2001, half the time working on medical inventions; prior to that, during the 1990s, has worked in UK hospitals as a medical physicist, specialising in radiotherapy and imaging

Moataz Karmalawy
Chief Commercial Officer, President US

- Former General Manager of the Worldwide Particle Therapy Business for Varian Medical Systems, the world's largest manufacturer of radiotherapy equipment
- Grew the order book of Varian to over $1bn and achieved a 50% market share of the global particle therapy products market
- Also worked at Philips Medical Systems, Inc and won a performance excellence award for quality & customer satisfaction industry wide

Ed Lee
Chief Operating Officer, President Europe

- 25 years of experience in operations and manufacturing
- Former Production and Technical Field Service Director at Optivus Proton Therapy
- Manufacturing and operations experience spanning from high-volume/low-mix to low-volume/high-mix industries such as Automotive, Aerospace, Military/Defence, Nuclear, and Medical Device

Simon Lee
Director, Client Services

- +30 years of experience in the radiotherapy market, both in R&D and after-sales services
- Former European distributors' manager for Elekta and Head of installations for Varian (Russia)

Geraldine Poindron
Senior Vice-President, Corporate Finance

- Strong experience in financial planning and analysis, business partnering and decision support, Board/management reporting and transaction execution
- Previously worked for Lazard in M&A and for SFR as a Forecasting & Analytics manager

Berengere Pons-Chabord
Senior Vice-President, Corporate Finance

- Strong experience in financial analysis, business planning and Board/management reporting
- Previously worked for Lazard as an M&A Vice-President
- Transaction experience covers a wide range of private and public transactions, including acquisitions, divestitures, and more complex structures

Graham Pughe
Senior Vice-President, Accounting and IT

- Seasoned finance professional with a strong technical grounding within all areas of the finance spectrum
- Implemented robust and pragmatic solutions for various industries including newspaper publishing, food manufacturing and building materials

A Mission Supported by Worldwide Experts

Prof. Ugo Amaldi
Adviser

- Has been working at CERN since the 1970s; founded the DELPHI Collaboration, at CERN's LEP Accelerator: established TERA, the Italian Foundation for Hadrontherapy
- Led the design effort of the Italian National Centre of Oncological Hadrontherapy (CNAO)
- Awarded the Gold Medal for science and culture by the President of the Republic of Italy
- Appointed Fellow of the European Physics Society

Dr. Hanne Kooy, PhD
Adviser

- Experimental High Energy Physics expert and associate Professor of Radiation Oncology at Harvard University

Dr. Jay Loeffler, MD
Adviser

- Herman Suit Professor of Radiation Oncology at Harvard Medical School, Boston
- Chair of the Department of Radiation Oncology at the Massachusetts General Hospital, Boston
- Member of the Institute of Medicine of the National Academies of Science

Prof. Chris Nutting
Adviser

- World leading consultant oncologist
- Consultant clinical oncologist and chair at The Royal Marsden and The Institute of Cancer Research London; chairman of the National Advisory Board on Head and Neck Cancer to the Cancer Services Collaborative
- President of the British Oncological Association

Dr. Margaret Spittle, OBE
Adviser

- Clinical oncologist at University College London Hospital (UCLH) and consultant adviser in Radiation Medicine to HM Royal Navy and the Defence
- Member of the Nuclear Safety Committee and Medical Adviser Board member to UK All Party Committee on Breast Cancer

Dr. Euan Thomson
Adviser

- Trained as a physicist; nearly 20 years of experience in research, clinical practice, consulting and corporate management and more than 14 years of experience as a CEO
- Operating partner at Khosla Ventures; CEO of AliveCor; Director of the Hospice of the Valley
- Served as global lead of R&D, digital technology and advanced innovation for J&J; previously the CEO of Accuray for 10 years; consultant for other medical device companies including Varian Oncology Systems and Radionics; has served as Chair of the California Division of the Entrepreneur of the Year award

Corporate Governance Report

On 8 March 2018, the London Stock Exchange issued revised rules for AIM–listed companies, within which was a requirement (Rule 26) for AIM companies to apply a recognised corporate governance code from 28 September 2018. The Directors recognise the importance of good corporate governance and have chosen to apply the Quoted Companies Alliance Corporate Governance Code (the 'QCA Code'). The QCA Code was developed by the QCA in consultation with a number of significant institutional small company investors, as an alternative corporate governance code applicable to AIM companies. The underlying principle of the QCA code is that "the purpose of good corporate governance is to ensure that the Company is managed in an efficient, effective and entrepreneurial manner for the benefit of all shareholders over the longer term". The principal means of communicating this application of the Code are this Annual Report and the Company's website (www.avoplc.com).

DELIVER GROWTH

1. Establish a strategy and business model which promote long-term value for shareholders

The Group's strategy is explained within the previous Strategic Report section, on pages 42 and 43. By supplying an affordable and innovative solution to help physicians improve their clinical performance, without compromising on quality, the Group is committed to become a problem solver for physicians, offering them a tool to deliver best clinical outcomes for patients. With that in mind, Advanced Oncotherapy's strategy is twofold: (1) to provide a turn-key solution that delivers the best outcome for patients by bundling the LIGHT technology with complementary devices and services, including training, maintenance, financing, and building development/installation; and (2) to build on the LIGHT technology to make the treatment more affordable for patients whilst optimising the financial returns of the operators. The key challenges to the business and how these are mitigated are detailed on pages 44 and 45.

2. Seek to understand and meet shareholder needs and expectations

The Board, on the Company's behalf, recognises the need and its responsibility to maintain an active dialogue with its shareholders and discuss issues relating to the performance of the Group, including strategy and new business opportunities. It understands this is key to ensuring a smooth and effective decision-making process and building a sustainable business. The Executive Directors and members of the Board met and had dialogue with a number of shareholders and investors in the period to 31 December 2018. In particular, shareholders had the opportunity to discuss key strategic matters with the Directors and management during the Annual General Meeting ("AGM") held on 25 July 2018 and two ad-hoc shareholder meetings held on 23 January 2018 and 21 January 2019. The Board encourages shareholders to attend the Annual General Meeting and is always willing to answer questions, either in the meeting itself or, more informally, afterwards. The next Annual General Meeting will take place at 1 Wimpole Street - home of The Royal Society of Medicine, 1 Wimpole Street, London W1G 0AE on Thursday, 25 July 2019 at 2.00p.m. In addition, the Company's website includes a specific investor relations section containing all RNS announcements, share price information, statutory documentation with all annual report documents available for download. Dr. Michael Sinclair, the Executive Chairman, and Nicolas Serandour, the CEO, are also assisted in their responsibility to liaise with shareholders by the financial investor relation firm Walbrook, as well as by their nominated adviser. On 1 February 2019, the Group appointed Allenby Capital Limited as its nominated adviser and joint broker. Their contact details are available on page 106. The Company Secretary is also available to all Directors to provide advice and support. On 19 May 2019, Celia Whitten stepped down as Company secretary and was replaced by Henry Clarke.

3. Take into account wider stakeholder and social responsibilities and their implications for long-term success

Advanced Oncotherapy is committed to sustainable progress in all aspects of its business – including the patient community, the hospital community and its supply chain. This is evidenced and underpinned by the vision and values of the Company, described in pages 6 and 7 of the Strategic Report. Stakeholder groups identified by the Company include:

- patients;
- physicians;
- hospitals and operators of the LIGHT machine;
- shareholders;
- technology partners;
- property developers and Estates;
- contractors and sub-contractors;
- suppliers;
- employees;
- nomad;
- regulators; and
- auditors.

Advanced Oncotherapy encourages feedback from its customers, shareholders, and employees through public relations activities, regular formal contact via written communication, meetings, attending conferences, employee meetings, meetings with its technology partners. Informal contact is promoted through use of social media such as Facebook, Twitter, Linkedin and Yammer. Advanced Oncotherapy's website was upgraded at the beginning of 2018; this update has taken into account some of the comments provided by shareholders. An innovation panel and an internal newsletter have been put in place to address queries from employees. Other opportunities are provided to employees to ensure transparent flow of information. A corporate video has also been produced and shown on the website following requests from potential customers.

4. Embed effective risk management, considering both opportunities and threats, throughout the organisation

The section headed Principal Risks and Risk Management on pages 44 and 45 details the key risks to the business, and how these are mitigated. This is supplemented by a risk log updated internally by the management team. The Board considers risks to the business at every Board meeting (13 meetings were held in 2018). The Company formally reviews and documents the principal risks to the business at least annually. Both the Board and senior managers are responsible for reviewing and evaluating risk; the Executive Directors and the senior management team meet on a regular basis to review ongoing trading performance, discuss budgets and forecasts and new risks associated with ongoing trading.

MAINTAIN A DYNAMIC MANAGEMENT FRAMEWORK

5. Maintain the Board as a well functioning, balanced team led by the chair

Advanced Oncotherapy's Board develops the Company's strategy and provides leadership to the Group. The Board held 13 meetings in 2018. Dr Michael Sinclair, the Executive Chairman, is responsible for the running of the Board; Peter Sjöstrand, Vice Chairman, provides a senior independent opinion; whereas Nicolas Serandour, the Chief Executive Officer, has executive responsibility for running the Group's business and implementing the Group strategy. Whilst the Chairman also has an Executive role and it is recognised that a non-executive role for the Chairman is commonly perceived as a more desirable corporate governance standard, the Board feels that the commitment, expertise, industry connections and enthusiasm the Executive Chairman brings to the role offset this. In making this assessment, the other directors have also considered the fact that the Board comprises a Chief Executive Officer and a

Vice Chairman. The current structure of the Board is appropriate for the effectiveness of Advanced Oncotherapy's Board at this stage of the Company's development due to the mixture of their abilities, knowledge and experience. All Directors receive regular and timely information on the Group's operational and financial performance. Relevant information is circulated to the Directors in advance of meetings. All Directors have direct access to the advice and services of the Company Secretary and are able to take independent professional advice in the furtherance of their duties, if necessary, at the Company's expense. The Board comprises three Executive Directors and nine Non-Executive Directors. The Board considers that all Non-Executive Directors bring an independent judgement. The Board has a formal schedule of matters reserved to it and is supported by the Audit and Remuneration Committees. The Schedule of Matters Reserved and Committee Terms of Reference are available on the Company's website. Advanced Oncotherapy does not have a separate Nomination Committee to manage the appointment process for new Board directors.

6. Ensure that between them the directors have the necessary up-to-date experience, skills and capabilities

Board Composition

The Board comprises the Executive Chairman, the Chief Executive Officer, ADAM's Executive Chairman, and nine Non-Executive Directors. During the year, Sanjeev Pandya, Euan Thomson and Chris Nutting stepped down from the Board on 2 July 2018. They have greatly contributed to the Company. The medical background of Chris Nutting provided the Company with useful insights from a practitioner point of view, the Board experience of Dr Euan Thomson has been invaluable to the Group and both remain close with the Company acting as senior advisers to the Company.

New Appointments

When a new appointment to the Board is made or a removal is being considered, thought is given to the particular skills, knowledge and experience that could be of benefit to the Board. In the case of a new appointment, a formal process is then undertaken, which may involve external recruitment agencies, with appropriate consideration being given, in regard to Executive appointments, to internal and external candidates. Before undertaking the appointment of a Non-Executive Director, the Executive Chairman establishes that the prospective Director can give the time and commitment necessary to fulfil his/her duties, in terms of availability both to prepare for and attend meetings and to discuss matters at other times. Peter Sjöstrand, Gabriel Urwitz, RenHua Zhang, Chunlin Han and Yuelong Huang joined the Board on 28 August 2018. The new Non-Executive Directors bring with them valuable and complementary corporate experience at Director level and aid the Company with their knowledge of corporate governance and proven track record in the healthcare arena. Gabriel Urwitz and his partners have been instrumental in connecting the Company with the Scandinavian community. Gabriel Urwitz has been a long-term supporter of the business since the acquisition of ADAM. China is a key market for the future plans of commercialisation and Liquid Harmony has become a valuable partner to implement the strategy of the Company in this region. The appointment of Mrs Zhang, Mr Han and Mr Huang to the Board reinforces the ties between the two organisations and will help the roll out of this strategy.

Experience of the Board

Overall, the Board benefits from a fine balance of sector, financial and public market experience:

- Dr. Michael Sinclair, Prof. Steve Myers, Dr. Yuelong Huang and Dr. Nick Plowman have graduated from highly prestigious scientific institutions and have had senior roles in well-recognised healthcare groups and direct experience managing large scale medical and engineering projects.
- Dr. Peter Sjöstrand, Mr. Michael Bradfield, Mr. Hans von Celsing and Mrs. Renhua Zhang have previous experience at top executive positions of listed companies, including as CFO or CEO, and in industries closely related to radiotherapy such as health insurance, pharmaceuticals and engineering.
- Mr. Nicolas Serandour, Mr. Chunlin Han, Prof. Gabriel Urwitz and Dr. Enrico Vanni have successful experience advising managers and investors of 'large cap' healthcare companies.

Directors keep their skillset up to date with a combination of attendance at industry events, individual reading and study and experience gained from other board roles. The Company Secretary ensures the Board is aware of any applicable regulatory changes and updates the Board as and when relevant. Directors are able to take independent professional advice in the furtherance of their duties, if necessary, at the Company's expense. Directors also have direct access to the advice and services of the Company Secretary.

All Non-Executive Directors serving at the year-end are considered to be independent. The Board does not consider the shareholdings of the Non-Executive Directors as detailed on page 64 to have any effect on their independence. The biographies on pages 48 and 49 include further disclosures in relation to the directors, their relevant experience, skills and personal qualities and capabilities.

7. Evaluate Board performance based on clear and relevant objectives, seeking continuous improvement

Effectiveness

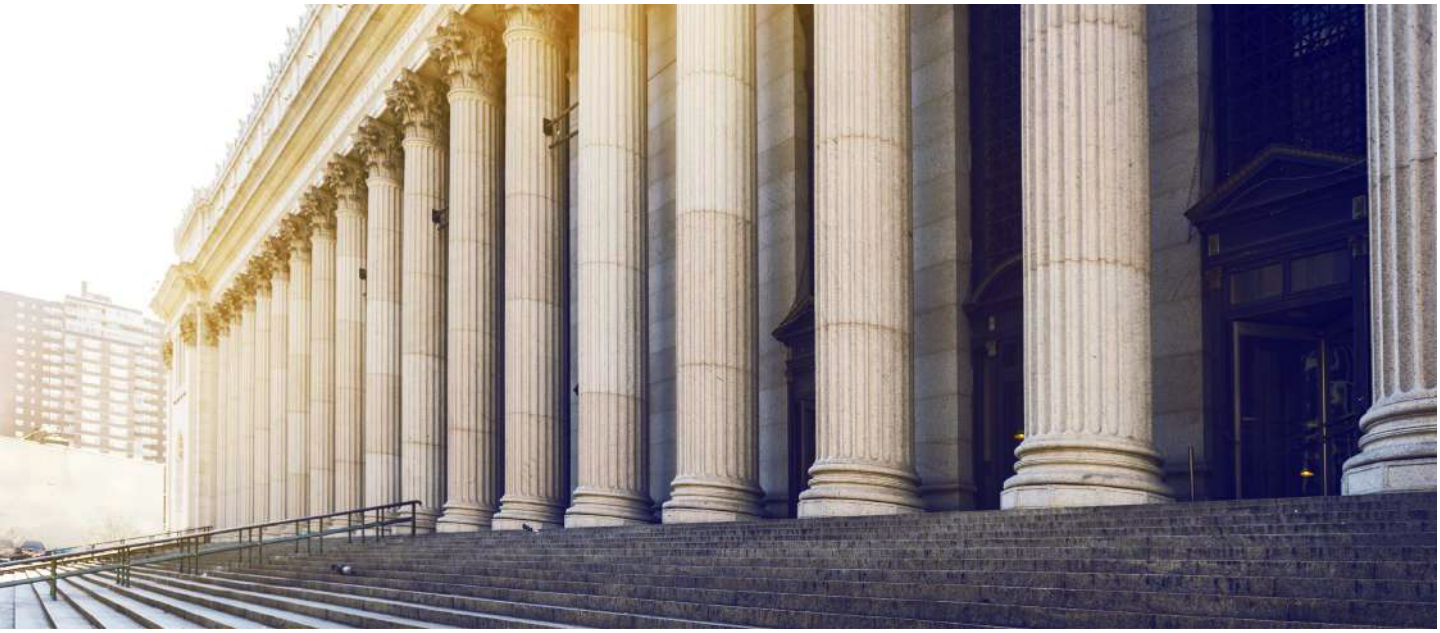
The Board carries out an evaluation of its performance annually, taking into account the Financial reporting Council's Guidance on Board Effectiveness. The criteria against which Board, committee and individual effectiveness is considered comprise the Board structure (its composition, constitution and diversity), the dynamics and functioning of the Board (annual Board calendar, information availability, interactions and communication with CEO and senior executives, cohesiveness and the quality of participation in Board meetings); the Board's role in Company strategy; the financial reporting process, the monitoring, supporting and advisory roles. Evaluation procedures have not materially changed from previous years.

Service agreements

All Executive Directors have service agreements with the Group terminable by either party upon the minimum notice period being met. The notice period is 24 months for Dr. Michael Sinclair and Nicolas Serandour and six months for Prof Steve Myers.

Name of Directors	*Date of Appointment*
Executive Directors	
Dr Michael Sinclair	16 June 2006
Mr. Nicolas Serandour	27 August 2014
Prof. Steve Myers, OBE	26 January 2017
Non-Executive Directors	
Mr. Michael Bradfield	26 April 2013
Mr. Hans von Celsing	26 January 2017
Mr. Chunlin Han	28 August 2018
Dr. Yuelong Huang	28 August 2018
Dr. Nick Plowman	9 February 2017
Mr. Peter Sjöstrand	28 August 2018
Prof. Gabriel Urwitz	28 August 2018
Dr. Enrico Vanni	1 October 2013
Mrs. Renhua Zhang	28 August 2018

Corporate Governance Report_continued



Attendance

13 meetings were held in the period ending 31 December 2018. Regular formal and informal presentations on financial and operational performance and other relevant corporate updates were given in order to inform Directors of issues of importance affecting the Group. Occasionally, meetings of the Board were held in Geneva, in order to afford the Board, particularly the Non-Executive Directors, the opportunity to meet with local management. In addition, the Board had a two-day annual strategy meeting, also attended by members of the Executive Committee who are not on the Board, to devise and discuss the Company's medium and long-term strategic focus and development strategy. All Directors are expected to attend all Board and relevant Committee meetings. Details of attendance by Directors at meetings during the year are set out in the table below. Directors who were unable to attend specific meetings reviewed the relevant papers and provided their comments to the Chairman of the Board or Committee. Any Director who misses a meeting receive, as a matter of course, the minutes of that meeting for reference. Audit and Remuneration Committee meetings were held on an ad hoc basis as required. The activities of the Audit and Remuneration Committees are described on pages 60 to 63.

Re-election

The Articles of Association of the Company state that one-third of the Directors must stand for re-election by shareholders annually in rotation and that each Director appointed by the Board is subject to election by the shareholders at the first AGM after their appointment. However, to underline their accountability to shareholders and the Board's commitment to appropriate corporate governance, each Director will stand for re-election at the upcoming AGM. The Board has concluded that each Director is eligible for election or re-election. The Executive Chairman and the Chief Executive Officer evaluate succession planning at the Board level and will discuss this with the Non-Executive Directors as appropriate.

Director	*Scheduled Board meetings*	*Ad hoc Board meetings**	*Audit and Risk Committee*	*Remuneration & Nomination Committee*
Dr Michael Sinclair	13/13	8		
Mr. Michael Bradfield	10/13	1	3/3	2/3
Mr. Hans von Celsing	12/13	3	3/3	3/3
Mr. Chunlin Han (appointed on 28 August 2018)	1/5	-		
Dr. Yuelong Huang (appointed on 28 August 2018)	4/5	1		
Prof. Steve Myers, OBE	11/13	1		
Prof. Chris Nutting (resigned 2 June 2018)	2/7	-		
Mr. Sanjeev Pandya (resigned 2 June 2018)	7/7	-		
Dr. Nick Plowman	6/13	1		
Mr. Nicolas Serandour	12/13	8		
Mr. Peter Sjöstrand (appointed on 28 August 2018)	5/5	1		
Dr. Euan Thomson (resigned 2 June 2018)	1/7	-		
Prof. Gabriel Urwitz (appointed on 28 August 2018)	5/5	1		
Dr. Enrico Vanni	10/13	-	3/3	3/3
Mrs. Renhua Zhang (appointed on 28 August 2018)	1/5	-		

** Where often only a quorum is necessary*

8. Promote a corporate culture that is based on ethical values and behaviours

Culture

The Board recognises that culture plays a fundamental role in the delivery of strategy; it is ultimately responsible for ensuring that the activities of the Group reflect the culture the Board wishes to instil in the colleagues of the Company and other stakeholders to drive the right behaviours. Pages 6 and 7 of the Strategic Report detail the ethical values of Advanced Oncotherapy which include:

- integrity;
- sincerity;
- reliability and Accountability;
- commitment;
- consistency; and
- competence and collaboration.

Employees

The continuing success of the Company is reliant on having the best people in all areas of its operations. The Group considers its people for employment, training, career development and promotion on the basis of their abilities and aptitudes, regardless of physical ability, age, gender, sexual orientation, religion or ethnic origin. The Group's gender split in the period ending December 2018 was 84:34 (Male:Female) permanent employees with a team of 118 (132 including contractors). The Group applies fair and equitable employment policies, and these ensure that entry into, and progression within, the Group is determined solely by the fair application of relevant job criteria and by personal ability and competence. The Company actively promotes the career development of its employees. Full and fair consideration (having regard to the person's particular aptitudes and abilities) is given to applications for employment and the career development of disabled persons. The Group will take all practicable steps to ensure that if an employee becomes disabled during the time they are employed, their employment can continue. It continues to review both performance and potential as a key part of its annual performance management, career development and succession planning processes. Diversity is at the heart of the Group culture, which is characterised by a meritocratic and collaborative ethos. 26 different nationalities are represented in the Group as at 31 December 2018.

Whistleblowing procedures

The Company's management structure emphasises short reporting lines, encouraging its staff to realise their full potential, as well as to raise issues and concerns with senior managers and Directors. In addition, the Group operates a whistleblowing policy which allows all employees to raise concerns to senior management in strict confidence about any unethical business practices, fraud, misconduct or wrongdoing.

9. Maintain governance structures and processes that are fit for purpose and support good decision-making by the Board

Responsibility of the Board

The Board has a collective responsibility to promote the long-term success of the Company and is accountable to shareholders for ensuring that the Group is appropriately managed and achieves the strategic objectives it sets, in a way that is supported by the right culture, values and behaviours throughout the Group. In the performance of its duties, it has due regard to the interests of other key stakeholders and is aware of the potential impact of the decisions it makes.

Matters reserved to the Board and its committees

The Board is the decision-making body for those matters that are considered of significance to the Group owing to their strategic, financial or reputational implications or consequences. To retain control of these key decisions, certain matters have been identified that only the Board may approve and there is a formal schedule of powers reserved to the Board. Specific responsibilities have been delegated to the Board Committees, each of which is responsible for reviewing and dealing with matters within its own terms of reference. Each Committee reports to, and has its terms of reference approved by, the Board. The Committee papers and minutes are shared with all Directors. The schedule of matters reserved for the Board and the terms of reference for each of its Committees can be found on the Company's investor relations website at www.avoplc.com. Any matters outside of these falls within the CEO's responsibility and authority. Accordingly, the CEO reports on activities of the Executive Leadership Team via regular updates to the Board.

Board committees

The two principal Committees of the Board are the Audit Committee and the Remuneration Committee. Board Committee members are appointed by the Board, which reviews the composition of each Committee regularly. The Committee memberships are spread between the Non-Executive Directors, drawing on each of their relevant skills and experience.

BUILD TRUST

10. Communicate how the Company is governed and is performing by maintaining a dialogue with shareholders and other relevant stakeholders.

Formal communication of the Company's financial performance is communicated to the market by RNS announcements on the London Stock Exchange. The Company encourages two-way communication with both its institutional and private investors and responds quickly to all queries received. The Executive Chairman talks regularly with the Group's major shareholders and ensures that their views are communicated fully to the Board. The Board recognises the AGM as an important opportunity to meet private shareholders. The Directors are available to listen to the views of shareholders during or informally immediately following the AGM. The Company discloses outcomes of all votes in a clear and transparent manner by publishing a regulatory announcement or via the Company website. Where a significant proportion of votes (e.g. 20% of independent votes) have been cast against a resolution at any general meeting, the Company will include, in such a regulatory announcement or the Company website, the actions it intends to take to understand the reasons behind the vote result and, where appropriate, any different action it has taken, or will take, as a result of the vote. The Company's website includes historical annual reports and other governance-related material over the last three years.

BOARD IN ACTION

How our expertise leads to better product development and meeting customers' needs

Having a high-quality team of experts across our business and an open and transparent communication means great ideas come forward and decisions can be made quickly.

We can deliver for our customers, listening to their changing needs and for ways to innovate our business for today and the future.

Why this matters for the future of the business?

Having an agile business which can quickly innovate and respond to new challenges means we embrace opportunities to develop a product that meets our customers' needs and help deliver long-term and sustainable success.

The pace at which Advanced Oncotherapy moves is impressive. The Board stays close to the business to meet customers' needs, not only for today but for the future too, and to support it in achieving its ambitions faster. Its diverse experience ensures we are able to effectively challenge and support management in key strategic decisions aligned to the Group's sustainable growth ambitions.

Hans von Celsing
Senior Independent Director

Statement of Directors' Responsibilities

DIRECTORS' RESPONSIBILITIES
The Directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulations. Company law requires the Directors to prepare financial statements for each financial year.

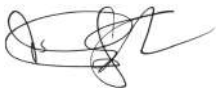
Under that law the Directors have elected to prepare the Group financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union and the Company financial statements in accordance with UK GAAP. Under company law the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Company and of the profit or loss of the Group for that period. The Directors are also required to prepare financial statements in accordance with the rules of the London Stock Exchange for companies trading securities on the Alternative Investment Market.

In preparing these financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- State whether applicable accounting standards have been followed subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

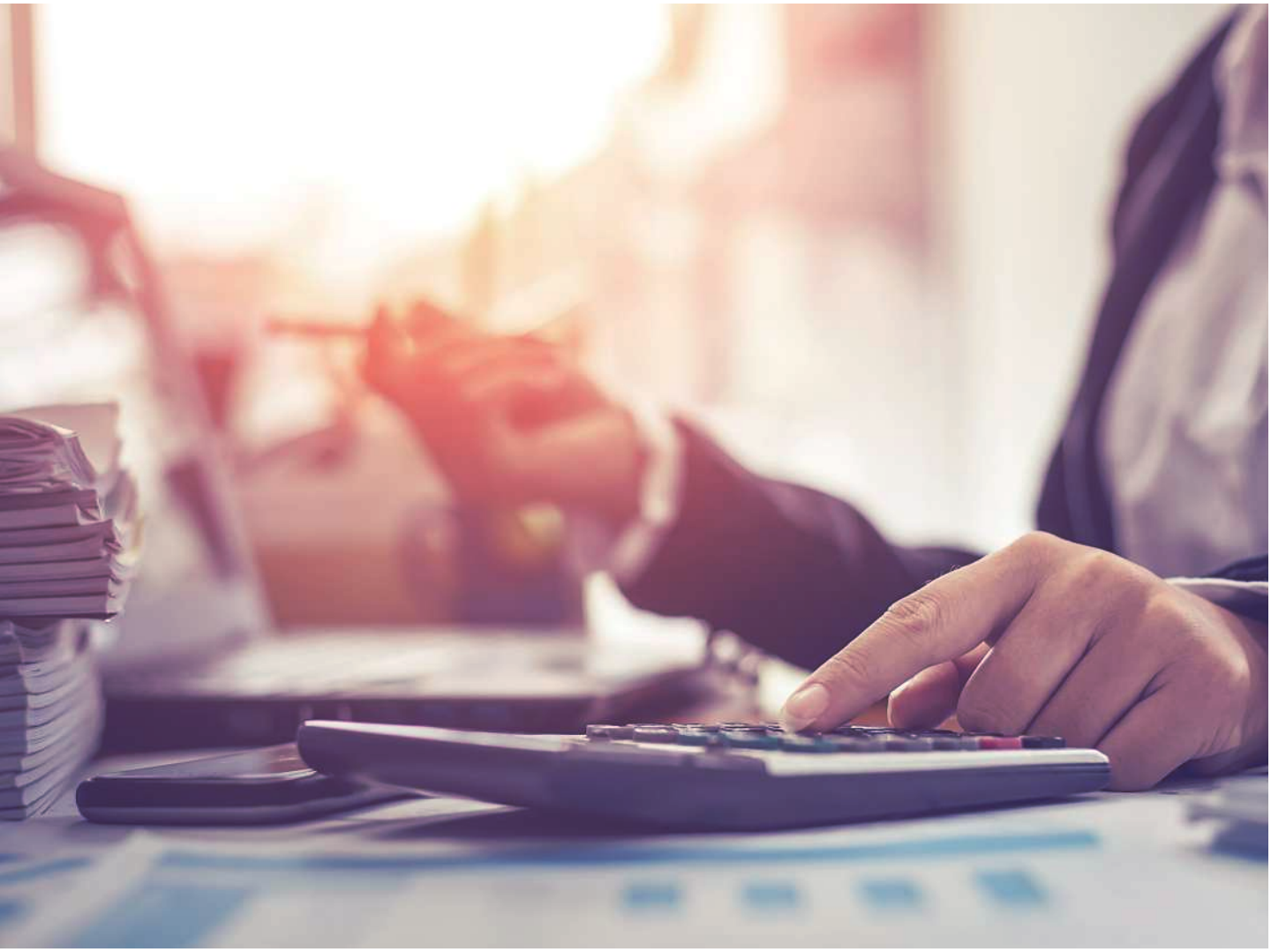
The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Group's transactions and disclose with reasonable accuracy at any time the financial position of the Group and enable them to ensure that the financial statements comply with the requirements of the Companies Act 2006. They are also responsible for safeguarding the assets of the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

WEBSITE PUBLICATION
The Directors are responsible for ensuring the Annual Report and the financial statements are made available on a website. Financial statements are published on the Company's website in accordance with legislation in the United Kingdom governing the preparation and dissemination of financial statements, which may vary from legislation in other jurisdictions. The maintenance and integrity of the Company's website is the responsibility of the Directors. The Directors' responsibility also extends to the ongoing integrity of the financial statements contained therein.



Dr Michael Sinclair
Executive Chairman
27 June 2019

Audit Committee Report



INTRODUCTION
The Board is required to establish formal and transparent arrangements for considering how it should apply required financial reporting standards and internal control principles. The Board is also responsible for maintaining appropriate independent relationships with the Group's external auditors, RPG Crouch Chapman LLP. As a result, a sub-committee of the Board - the Audit Committee - exists to scrutinise and clarify any qualifications, recommendations and observations within the audited accounts and report of the Group's auditor. When satisfied, the Audit Committee presents the audited accounts and report to the Group's Board and reviews the effectiveness of resultant corrective and preventative measures.

MEMBERS OF THE AUDIT COMMITTEE
Hans von Celsing is Chairman of the Audit Committee which normally meets three or four times a year. Other members of the Audit Committee are Dr Enrico Vanni and Michael Bradfield.

RELEVANT SKILLS AND EXPERIENCE
The composition of the Audit Committee is reviewed on an annual basis to ensure that it is comprised of members with skills and competences relevant to the radiotherapy equipment manufacturers sector and recent and relevant financial experience. The biographies of all the members of the Audit Committee are on pages 48 and 49 and show that the Audit Committee has gained a combination of financial, investment and other relevant experience throughout their careers, which satisfies the provisions of the Quoted Company Alliance ("QCA") Code.

The Audit Committee may invite representatives of the management team and other Directors to attend the meetings as appropriate.

RESPONSIBILITIES
The Audit Committee's main responsibilities during the year were:

- to review the Company's half-year and annual report and significant financial reporting issues and judgements contained therein;

- to recommend the appointment of external auditors, agreeing the scope of its work and its remuneration, reviewing its independence and the effectiveness of the audit process;
- to review the Going Concern Statements presented in the Annual Report, the supporting budgets, forecasts and evidence, and to report to the Board on its opinion on those statements;
- to undertake a performance evaluation process for the Audit Committee; and
- to consider the need for an internal audit function.

The Audit Committee's terms of reference are available for review on the Company's website at www.avoplc.com.

SIGNIFICANT ISSUES CONSIDERED IN RELATION TO THE FINANCIAL STATEMENTS

During the year, the Audit Committee considered key accounting matters and judgements in respect of the financial statements relating to:

Accounting Policies

The Audit Committee ensured that the accounting policies were applied consistently throughout the year and that new policies were adopted as appropriate for new transactions and for application of new financial reporting standards.

Overall accuracy of the Annual Report

The Audit Committee dealt with this matter by considering the draft Annual Report and the Auditors' Report to the Audit Committee, the consistency of the reports, and whether they are in accordance with the information provided to the Board during the year. The Audit Committee has reviewed the contents of this year's Annual Report and financial statements and confirmed to the Board that, in its view, the report is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's position, performance, business model and strategy.

RISK MANAGEMENT

The Audit Committee continually reviews the Group's approach and arrangements to deal with risk, including monitoring the processes that surround the maintenance of the Group's risk register and meeting senior members. The risk framework and register is produced by senior management and aims to identify all key risks facing the Group, the owner of the risk and the actions taken to mitigate these risks.

EXTERNAL AUDITORS

Independence

In order to fulfil the Audit Committee's responsibility regarding the independence of the auditors, the Audit Committee reviewed:

- the senior audit personnel in the audit plan for the year: Colin Turnbull agreed to take over from Paul Randall as the new external audit partner for this year's audit. With this rotation, Colin brings over 15 years of experience working with AIM companies, complex financial reporting as well as working closely with small to medium sized businesses;
- the extent of any non-audit services: Details of the amounts paid to the external auditor during the year for audit and other services are set out in Note 3 to the financial statements. The external auditor was engaged for one non-audit assignment during the year. The use of their knowledge of the facts under consideration was seen as being cost effective for the Group. Their engagement was not deemed to compromise their objectivity; and
- the statement by the auditors that they remain independent within the meaning of the regulations and their professional standards.

Effectiveness

This year the nature and scope of the audit together with RPG Crouch Chapman LLP's audit plan were considered by the Audit Committee who met with RPG Crouch Chapman LLP in December 2018. The Audit Committee met RPG Crouch Chapman LLP on17 June 2019 to formally review the outcome of the audit and to discuss the limited issues that arose. The Audit Committee also discussed the presentation of the Annual Report with the auditors and sought their perspective.

The Audit Committee assesses the effectiveness of the external auditor on an annual basis. The work undertaken by the auditor to test management's assumptions and estimates is challenged by the Audit Committee, which assesses the effectiveness of the audit process.

Following the completion of the 2018 year-end audit, the Audit Committee conducted its review and considers that the audit was appropriately planned and scoped efficiently and effectively performed by RPG Crouch Chapman LLP. The Audit Committee is satisfied that RPG Crouch Chapman LLP continued to perform effectively as the external auditor.

Auditors' Reappointment

RPG Crouch Chapman LLP have been the external auditor of Advanced Oncotherapy plc since being appointed in 2011. The Audit Committee notes the new requirement of the revised Corporate Governance Code, although not mandatory for AIM-listed Companies, that the external audit contract be put out to tender at least every 10 years.

RPG Crouch Chapman LLP have indicated their willingness to continue to act as auditors to the Company for the forthcoming year.

A resolution for their re-appointment will be proposed at the Annual General Meeting.

INTERNAL AUDIT

The Group does not have an internal audit function. The Audit Committee considers this is appropriate given the size of the Group and the close involvement of the Executive Directors and senior management on a day to day operational basis. However the need for an internal audit function is kept under regular review by the Audit Committee on behalf of the Board.

Hans von Celsing
Chairman of the Audit Committee
27 June 2019

Remuneration Committee Report

The Company is not required by either the AIM Rules or the Companies Act to produce a remuneration report but has provided the information below because of its commitment to maintaining high standards of corporate governance. The Company's Remuneration Policy is the responsibility of the Remuneration Committee, which is chaired by Hans von Celsing.

REMUNERATION POLICY
The Company's aim is to attract, retain and incentivise the Executive Directors, senior management and staff in a manner consistent with the goals of good corporate governance.

In setting the remuneration policy, and when determining appropriate individual packages, the Remuneration Committee takes into account the following:

- the importance of remuneration and its capacity to successfully attract, retain and motivate Executive Directors and senior management;
- pay and benefits practice and employment conditions, both within the Company as a whole and within the particular countries in which it operates; and
- the market rate of pay for equivalent roles in similar companies, taking into account their size, business complexity, international scope and relative performance.

The Company's remuneration packages awarded to Executive Directors and senior management are intended to be competitive, include a significant proportion of performance related remuneration, reflect individual responsibilities and align employees with shareholders' interests. Medical health insurance, life cover and pension benefits are also provided to employees once they have met eligibility criteria.

REMUNERATION POLICY TABLE
The table overleaf summarises the key aspects of the Company's remuneration policy.

PENSION AND BENEFITS
The Company's policy is either to provide a contribution to a pension arrangement or provide payments in lieu of pension. Other benefits are provided to the Executive Directors including a fully expensed company car allowance, medical insurance and other benefits may be provided from time to time.

NON-EXECUTIVE DIRECTORS
The fees paid to the Non-Executive Directors are determined by the Board. Non-Executive Directors are not entitled to receive any bonus or other benefits and participate in any of the Company's incentive schemes. Non-Executive Directors are entitled to reasonable expenses incurred in the performance of their duties.

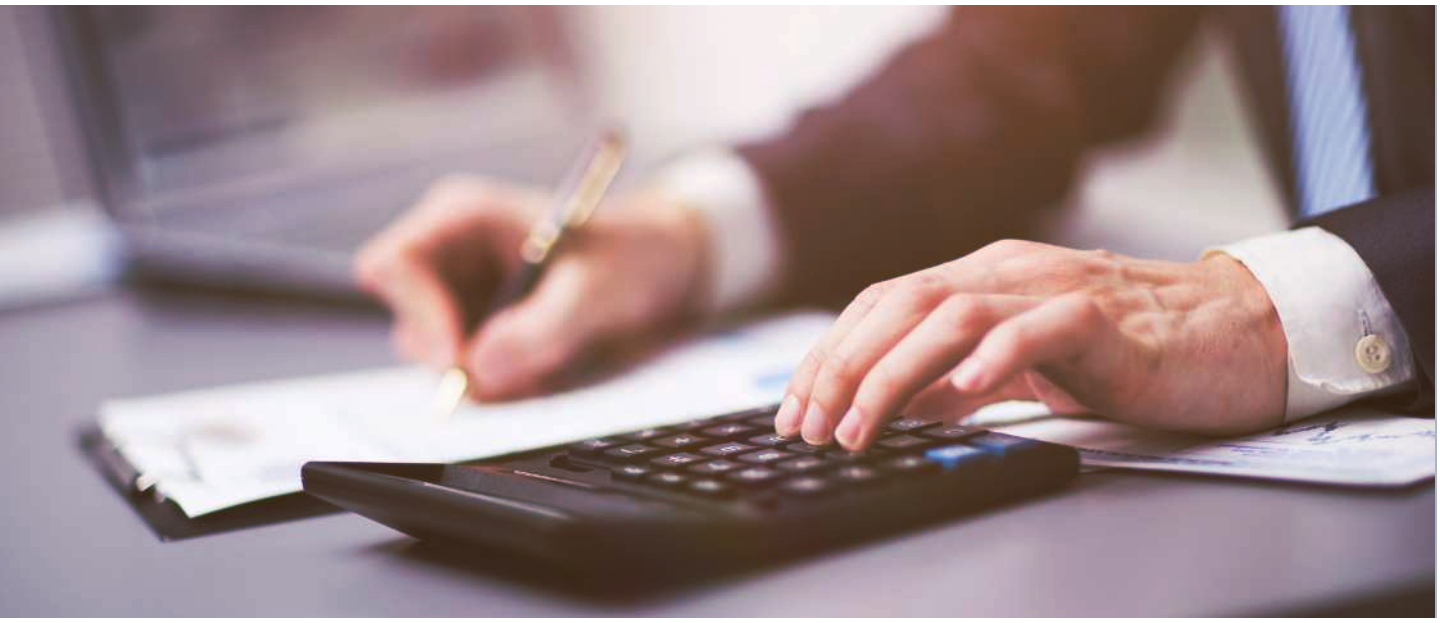
The Company's policy for the December 2018 financial year is to pay a fee of £30,000 per annum for Non-Executive Director duties; no fees for additional duties were paid during 2018.

APPROACH TO RECRUITMENT AND PROMOTIONS
The Remuneration Committee has the objective to attract, retain and motivate the best talents in the industry, while ensuring a close alignment between the interests of shareholders and management. It is the Remuneration Committee's intention that the ongoing remuneration package of Executive Directors and senior management would be set in accordance with the terms of the Company's remuneration policy as set out above.

Base salary levels will be set to reflect the experience of the individual, appropriate market data and internal relativities. The Remuneration Committee may feel it is appropriate to appoint a new employee on a below-market salary with a view to making salary increases over a number of years, above the market and workforce rate in order to reach the desired salary positioning, subject to individual and Company performance.

For all appointments, the Remuneration Committee may agree that the Company will meet certain appropriate relocation costs.

Hans von Celsing
Chairman of the Remuneration Committee
27 June 2019



Element	Purpose and link to strategy	Operation	Maximum opportunity
Base salary	To recruit and reward executives of a suitable calibre for the role and duties required.	Normally reviewed annually by the Remuneration Committee, taking into account Company and individual performance, changes in responsibility, and the country where the executive ordinarily works. The Remuneration Committee considers the impact of any basic salary increase on the total remuneration package. Salaries (and other elements of the remuneration package) may be paid in different currencies as appropriate to reflect the geographic location of employees.	There is no prescribed maximum annual increase. The Committee is guided by the general increase for the broader employee population but on occasions may need to recognise, for example, development in role, change in responsibility, and/or an increase in the scale or scope of the role.
Annual bonus	To encourage and reward delivery of the Company's operational objectives.	Bonus awards are determined by the Remuneration Committee taking into account Company and individual performance. They are either related to the achievement of personal, departmental and/or Group targets/milestones. In addition, the Remuneration Committee has the discretion to settle an element of any bonus in shares or share options in lieu of cash considerations.	The maximum annual bonus opportunity that may apply for any Executive Director in any given year is 100% of salary. The Remuneration Committee can also endorse additional discretionary bonus, subject to specific contributions, roles and performance of individuals.
Long-Term Incentive Plan ("LTIP")	To incentivise and reward participants for strong performance against long-term strategic objectives, and to align the interests of Executive Directors and senior management with shareholders.	Performance conditions, targets and weightings are set by the Remuneration Committee at the time of an award to ensure they are stretching and aligned with the Company's strategy to build shareholder value. The first award was announced on 22 February 2019, under which the Committee awarded four million options with an exercise price of 100 pence per share to Executive Directors and senior management. The options have a five-year term, expiring on 20 February 2024. This award followed the ISO:13485 certification, the "superficial tumour" milestone and the £10 million funding round announced on 21 December 2018.	n.a.
Savings related share option scheme or SAYE (Save As You Earn) plan.	To encourage ownership and align the interests of employees and external shareholders and build long-term value.	The SAYE scheme is open to all employees with more than one month's service. Pursuant to this SAYE Option Plan, participants can make monthly contributions of up to £500 on a three-year savings account. This SAYE scheme was approved at the shareholder meeting of the Company held on 25 July 2018 and launched on 21 December 2018. The first SAYE options were issued post year end, on 22 February 2019. At the end of this three-year period, employees have the option to acquire Ordinary Shares of 25 pence each in the Company at 40 pence, corresponding to the price of the £10 million direct subscription announced on the same day as the SAYE scheme was launched. The SAYE options have a savings contract start date of 1 March 2019 and are exercisable between 1 March 2022 and 31 August 2022. A total of 66 employees elected to participate in the 2018 SAYE plan.	Maximum monthly savings of £500. As per this SAYE plan, the Board granted options over a total of 1,449,342 new shares.

Group Directors' Report

The Directors present their annual report and the financial statements of the Group for the year ended 31 December 2018.

CORPORATE DETAILS
Advanced Oncotherapy plc is incorporated and registered in England and Wales with the registered number 05564418. The registered office is Level 17, Dashwood House, 69 Old Broad Street, London EC2M 1QS.

DIRECTORS
The Directors who held office during the year and as at the date of signing the financial statements are listed on page 56.

PRINCIPAL ACTIVITY
The Group is focused on providing innovative radiotherapy systems for cancer treatment through the use of a novel proton therapy technology.

RESEARCH AND DEVELOPMENT
During the year the Group expensed through the income statement £0.1 million (2017: £0.3 million) in relation to research and development costs. These costs are for ADAM research staff and for physics consultancy costs incurred on research projects, not capitalised as an Intangible asset. In addition, development costs amounting to £8.8 million (2017: £8.4 million) were capitalised within intangible assets.

LIKELY FUTURE DEVELOPMENTS IN THE BUSINESS OF THE GROUP
The outlook is available on page 12.

RESULTS AND DIVIDENDS
The results for the year and the financial position at 31 December 2018 are shown in the Consolidated statement of Comprehensive Income on page 70 and the consolidated statement of financial position on page 71. The Directors did not recommend the payment of a dividend for the year (2017: nil). The results of the Group for the year are explained further on pages 74 to 93.

SUBSTANTIAL SHAREHOLDINGS
On 31 May 2019, the Company had been notified that 8 parties had holdings of 3% or more in the ordinary share capital of the Company. The number of ordinary shares and the percentage of the total shares held by each party is outlined below:

	Number of shares	*% of total in issue*
Liquid Harmony Limited	45,000,000	**22.48%**
DNCA Investments	12,000,000	**5.99%**
Brahma AG	7,912,000	**3.95%**
Barrymore Investments Ltd	7,905,721	**3.95%**
Mr Michael Bradfield	7,080,740	**3.54%**
Hargreaves Lansdown Asset Mgt	6,741,598	**3.37%**
Dr Michael Sinclair & Family	6,594,660	**3.29%**
AB Segulah	6,488,789	**3.24%**

DIRECTOR'S SHAREHOLDINGS

The beneficial interests of the Directors in the share capital of the Company at 31 December 2018 and 31 December 2017 were as follow:

Holdings by Directors or Holdings Under Their Control	*31 December 2018*	*31 December 2017*
Chunlin Han, Renhua Zhang, Yuelong Huang	**45,000,000**	-
Michael Bradfield	**7,080,740**	7,080,740
Dr Michael Sinclair & Family	**6,594,660**	4,928,229
Gabriel Urwitz	**6,488,789**	-
Dr Nick Plowman	**3,930,304**	3,470,132
Dr Enrico Vanni	**1,926,361**	1,223,946
Nicolas Serandour	**1,760,467**	93,800
Prof Steve Myers	**783,902**	450,569
Hans von Celsing	**30,000**	-

Options and warrants held by Directors who have served during the year are listed in Note 8 of the Financial Statements on page 81. Information on Directors' remuneration and share option rights is given in Note 8 on page 80.

SUPPLIER PAYMENT POLICY AND PRACTICE

The Company does not operate a standard code in respect of payments to suppliers. It agrees terms of payment with suppliers at the start of business and then makes payments in accordance with contractual and other legal obligations.

DONATIONS

During the year, the Company made charitable donations totalling £16,291 (2017: nil).

DISCLOSURE OF INFORMATION TO AUDITORS

All of the current Directors have taken all steps possible to make themselves aware of any information needed by the Group's auditors for the purposes of their audit and to establish that the auditors are aware of that information. The Directors are not aware of any relevant audit information of which the auditors are unaware.

INDEPENDENT AUDITORS

RPG Crouch Chapman LLP were appointed during the period and have expressed their willingness to continue in office and a resolution to re-appoint them will be proposed at the annual general meeting.

RISK MANAGEMENT

The key risks and uncertainties facing the Group are considered as part of the Group's established process for identifying, evaluating and managing risk. Impacts of significant risks and their mitigation are monitored at Board meetings throughout the year and are subject to review. The key risks facing the business and the processes in place to manage those risks are provided in pages 44 and 45.

GOING CONCERN

The Directors have reviewed the current and projected financial position of the Group, making reasonable assumptions about future performance and taking into account the Group's cash balances. The Board is planning to continue with its programme to deliver first patient treatments by the end of 2020. This will require further funding to include - in particular - the cost of software development and the testing assembly centre at STFC, two key activities required for successful commercial deployment. The Company is still facing challenges which are inherent to the nature of the project and the funding activity is subject to appetite and conditions of the financial market. In the event of any delay in securing this funding, an alternative plan involving a slowdown of spending can be adopted, which would impact the project timeline. Should this be the case the Board is satisfied sufficient funding sources will be in place to meet this slower plan over the next 12 months. For this reason, the Directors continue to adopt the going concern basis in preparing the accounts.

ANNUAL GENERAL MEETING

The AGM will be held at 1 Wimpole Street - home of The Royal Society of Medicine, 1 Wimpole Street, London W1G 0AE on 25 July 2019 at 2.00 p.m. The resolutions to be proposed at the forthcoming Annual General Meeting are set out in the formal notice of the meeting on pages 102 to 104.

RECOMMENDATION

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

EVENTS AFTER THE REPORTING PERIOD

On 21 January 2019, the Company held a General Meeting during which all resolutions related to the £10 million funding round announced in December 2018 were duly passed. As a result, the Directors were granted the authority to issue 25 million new shares to the placees who invested during that financing process.

On 1 February 2019, the Company appointed Allenby Capital Limited as its nominated adviser and joint broker.

On 16 April 2019, Moataz Karmalawy was appointed Chief Commercial Officer and President, US. Mr Karmalawy joined from Varian, where he had been responsible for the Worldwide Particle Therapy Business for 12 years.

On 10 May 2019, the Company secured a £12.345 million funding in the form of a two-year secured debt facility with Credit Suisse AG for £10 million and a direct subscription raising of £2.345 million from predominately Swiss institutional investors.

Dr Michael Sinclair
Executive Chairman
Registered Office: Level 17, Dashwood House,
69 Old Broad Street, London EC2M 1QS
27 June 2019

Independent Auditor's Report to Advanced Oncotherapy plc

We have audited the financial statements of Advanced Oncotherapy plc (the 'Company') and its subsidiaries (the 'Group') for the year ended 31 December 2018 which comprise the Consolidated statement of profit or loss and other comprehensive Income, the Consolidated and Parent Company Statements of Financial Position, the Consolidated Statement of Cash Flows, the Consolidated and Parent Company Statements of Changes in Equity and the related notes.

The financial reporting framework that has been applied in the preparation of the Group and Company financial statements is applicable law and IFRSs as adopted by the European Union.

In our opinion:

- the financial statements give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 31 December 2018 and of the Group's loss for the year then ended;
- the Group financial statements have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union;
- The Parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practises; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

BASIS FOR OPINION

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

MATERIAL UNCERTAINTY RELATED TO GOING CONCERN

We draw attention to Note b in the accounting policies, concerning the Group's ability to continue as a going concern. The matters explained in Note b relating to the uncertainty of the Group's ability to fund its working capital needs and development plans indicate the existence of a material uncertainty which may cast significant doubt over the Group's ability to continue as a going concern. Our opinion is not modified in respect of this matter.

We have highlighted concern as a key audit matter based on our assessment of significance of risk and the effect on our audit strategy.

Our audit procedures in response to this key audit matter included:

- analysing Management's and the Directors' cashflow forecast which forms the basis of their assessment that the going concern basis of preparation remains appropriate for the preparation of the Group and Company financial statements for a period of at least twelve months from the date of approval of these financial statements;
- testing the mathematical integrity of the cashflow model in order to ensure the basis of preparation of the model;
- assessing costs included within the cashflow forecast and where available agreeing these costs to other evidence obtained during the course of our audit work is in line with our expectations;
- obtaining details of post year ends fundraisings and agreeing supporting documentation and cash received;
- discussing with Management and the Board the Group's strategy to continue to ensure funds are available to the Group to fund its plans; and
- reviewing and considering the adequacy of the disclosure within the financial statements relating to the Directors' assessment of the going concern basis of preparation.

KEY AUDIT MATTERS

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

Key audit matters were identified as carrying value of inventories, intangible asset valuation and going concern which is covered above.

In arriving at our opinions set out in this report, we highlight the following risks that, in our judgement, had the greatest effect on our audit:

Audit risk	*How we responded to the risk*
Intangible asset valuation The Group's Intangible assets consist of direct costs relating to the internal development of the proton therapy technology and machines. Please refer to Note 11. As an intangible asset not yet ready for use Management and the Board are required to perform an annual impairment. Given the materiality of the assets in the context of the Group's consolidated statement of financial position and the judgement involved in making this assessment we consider this to be a key audit matter.	***Our audit work included, but was not restricted to:*** • reviewing the impairment model provided and checking that the value in use model meets the requirements of the accounting standard; • testing the mathematical integrity of the cashflow model in order to ensure the basis of preparation of the model; • discussing with Management the assumptions used and obtaining details to support the key assumptions; • sensitising the cash flow for assumptions; and • comparing the market capitalisation of the group with the reported equity funds in the financial statements.
Inventories valuation Inventory consists of components of the LIGHT machine that will be sold as part of the first installation along with a research machine that is expected to be sold to a third party Given the materiality of the assets in the context of the Group's consolidated statement of financial position and the judgement involved in making this assessment we consider this to be a key audit matter.	***Our audit work included, but was not restricted to:*** • reviewing budgets and costs to complete; • considering sales prices of similar equipment; and • physically verifying existence of a sample of items and considering indicators of impairment.

OUR APPLICATION OF MATERIALITY AND AN OVERVIEW OF THE SCOPE OF OUR AUDIT

We define materiality as the magnitude of a misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality in determining the nature, timing and extent of our audit work and in evaluating the results of that work.

We determined materiality for the Group and Company financial statements as a whole to be £800,000 (2017: £474,000) which represents 1.3% (2017: 1%) of the Group's gross assets. This benchmark is considered the most appropriate because assets are the key item for an entity in the development phase.

Materiality for the current year is higher than the level that was determined for the year ended 31 December 2017, reflecting the increase materiality rate applied and the increase in the Group's gross assets in the year ended 31 December 2018. The rate applied is considered appropriate given the stage of development of the Group and the nature of the assets.

We use a different level of materiality, performance materiality, to drive the extent of our testing and this was set at 50% of financial statement materiality for the audit of high-risk areas and 75% for areas considered to be lower risk. We also determine a lower level of specific materiality for certain areas such as Directors' remuneration and related party transactions.

We determined the threshold at which we will communicate misstatements to the Audit Committee to be £40,000. In addition, we will communicate misstatements below that threshold that, in our view, warrant reporting on qualitative grounds.

Whilst materiality for the financial statements as a whole was £800,000 each significant component of the Group was audited to a lower level of £600,00 to £400,000 which was used to determine the financial statement areas that were included within the scope of the Component audits and the extent of sample sizes used during the audit.

OVERVIEW OF THE SCOPE OF OUR AUDIT

Our Group audit scope focused on the Group's principal activities and the reporting entities were held, Advanced Oncotherapy plc and ADAM SA. We have identified both entities as significant components for the purposes of our financial statement audit, based on their relative share of total assets. We have performed a full scope audit for these components, having performed substantive procedures over 99% of total assets.

The remaining components of the Group were considered non-significant. We performed full scope audit procedures over for UK Group entities subject to audit at the head office location in the United Kingdom where the accounting records of all companies in the group are held. Other insignificant components were subject to substantive testing where considered necessary.

All audit work (full scope audit or review work) was conducted by RPG Crouch Chapman LLP.

OTHER INFORMATION

The Directors are responsible for the other information. The other information comprises the information included in the annual report other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

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 ARE UNMODIFIED

In our opinion, based on the work undertaken in the course of the audit:

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

MATTER ON WHICH WE ARE REQUIRED TO REPORT UNDER THE COMPANIES ACT 2006

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

MATTERS ON WHICH WE ARE REQUIRED TO REPORT BY EXCEPTION

In the light of the knowledge and understanding of the Company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the Directors' report.

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

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements and the part of the Directors' Remuneration Report to be audited 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 DIRECTORS

As explained more fully in the Directors' responsibilities statement set out on page 59, the Directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Group's and the Company's ability to continue as

Independent Auditor's Report to Advanced Oncotherapy plc_continued

a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or the Company or to cease operations, or have no realistic alternative but to do so.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

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

We are responsible for obtaining reasonable assurance that the financial statements taken as a whole are free from material misstatement, whether caused by fraud or error.

Owing to the inherent limitations of an audit, there is an unavoidable risk that material misstatements of the financial statements may not be detected, even though the audit is properly planned and performed in accordance with the ISAs (UK). Our audit approach is a risk-based approach and is explained more fully in the 'overview of the scope of our audit' section of our Audit Report.

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

USE OF REPORT

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

Colin Turnbull ACA
Senior Statutory Auditor
for and on behalf of RPG Crouch Chapman LLP
Statutory Auditor, Chartered Accountants
62 Wilson Street
London
EC2A 2BU
27 June 2019

FINANCIAL REPORT

Consolidated Statement of Profit or Loss and Other Comprehensive Income

For the year ended 31 December 2018 - Financials in £

	Note	**Group 2018**	Group 2017
Revenue	2,3	**-**	-
Cost of sales	2	**(1,908,925)**	-
Gross loss		**(1,908,925)**	-
Administrative expenses	2	**(19,890,746)**	(14,492,595)
Operating loss	3	**(21,799,671)**	(14,492,595)
Finance income	2,4	**13,496**	-
Finance costs	2,5	**(80,187)**	(1,994,891)
Loss on ordinary activities before taxation		**(21,866,362)**	(16,487,486)
Taxation	6	**759,413**	2,827,115
Loss after taxation from continuing operations		**(21,106,949)**	(13,660,371)
Profit for the year from discontinued operations	1	**(47,794)**	-
Loss after discontinued operations		**(21,154,743)**	(13,660,371)
Loss for the period			
Equity of shareholders of the parent company		**(21,149,964)**	(13,660,371)
Non-controlling interests		**(4,779)**	-
		(21,154,743)	(13,660,371)
Other comprehensive income			
Items that will not be subsequently reclassified to profit or loss:			
Exchange differences on translation of foreign operations		**991,530**	(1,065,130)
Total comprehensive loss for the year net of tax		**(20,163,213)**	(14,725,501)
Total comprehensive loss attributable to:			
Equity of shareholders of the parent Company		**(20,158,434)**	(14,725,501)
Non-controlling interests	1	**(4,779)**	-
		(20,163,213)	(14,725,501)
Loss per ordinary share			
Basic and diluted			
Continuing operations	10	**(14.02)p**	(17.55)p
Discontinued operations	10	**(0.03)p**	0.00p
	10	**(14.05)p**	(17.55)p
Weighted average number of shares (000's)	10	**150,542**	77,832

All comprehensive income for continuing operations is shown above, equivalent information for discontinued activities is shown in Note 1.

The accompanying Notes on pages 74 to 93 form part of the financial statements.

Consolidated Statement of Financial Position

As at 31 December 2018 - Financials in £

	Note	Group 2018	Group 2017
Non-current assets			
Intangible assets	11	**40,165,073**	30,569,979
Property, plant and equipment	12	**4,086,730**	1,180,937
Investment property	13	**310,000**	310,000
Trade and other receivables	14	**1,210,874**	838,887
		45,772,677	32,899,803
Current assets			
Inventories	16	**10,014,086**	7,629,292
Trade and other receivables	14	**1,964,695**	1,964,792
Corporation tax R&D refund	14	**685,764**	2,850,000
Cash and cash equivalents	15	**1,013,053**	56,479
		13,677,598	12,500,563
Total assets		**59,450,275**	45,400,366
Current liabilities			
Trade and other payables	17	**(5,954,777)**	(7,491,290)
Borrowings	18, 32	**(3,000,000)**	(9,247,218)
		(8,954,777)	(16,738,508)
Non-current liabilities			
Licence Fee Received	17	**(16,500,000)**	-
		(16,500,000)	-
Total liabilities		**(25,454,777)**	(16,738,508)
Net assets		**33,995,499**	28,661,858
Equity			
Share capital	20	**42,391,523**	20,233,799
Share premium reserve	22	**50,724,177**	43,259,389
Share option reserve	23	**7,198,580**	5,743,609
Reverse acquisition reserve	24	**11,038,204**	11,038,204
Loan note conversion reserve	25	**-**	5,650,631
Exchange movements reserve	26	**1,451,939**	460,410
Accumulated losses		**(78,808,925)**	(57,724,185)
Equity attributable to shareholders of the Parent Company		**33,995,499**	28,661,858
Non-controlling interests		**-**	-
Total equity funds		**33,995,499**	28,661,858

These consolidated financial statements have been approved and were authorised for issue by the Board of Directors on 27 June 2019
Signed on behalf of the Board of Directors by

Dr Michael Sinclair
Executive Chairman

Nicolas Serandour
Chief Executive Officer

Registered number: 05564418
The accompanying Notes on pages 74 to 93 form part of the financial statements.

Consolidated Statement of Changes in Equity

For the year ended 31 December 2018 - Financials in £

	Note	Share capital	Share premium reserve	Share option reserve	Reverse acquisition reserve	Loan note conversion reserve	Exchange movement reserve	Accumulated losses	Equity share holders interest	Non-Controlling interest	Total
Balance at 01 January 2017		18,116,946	43,117,741	4,258,148	11,038,204	-	1,525,539	(44,063,813)	33,992,766	-	33,992,766
Loss for the year		-	-	-	-	-	-	(13,660,372)	(13,660,372)	-	(13,660,372)
other comprehensive income exchange movement		-	-	-	-	-	(1,065,130)	-	(1,065,130)	-	(1,065,130)
Total comprehensive income		-	-	-	-	-	(1,065,130)	(13,660,372)	(14,725,501)	-	(14,725,501)
Arising on issues of ordinary shares		208,333	41,667	-	-	-	-	-	250,000	-	250,000
Conversion of loan notes		1,852,932	97,068	-	-	-	-	-	1,950,000	-	1,950,000
Share based payment - employee services		55,587	2,913	690,810	-	-	-	-	749,310	-	749,310
- acquisition of ADAM S.A.		-	-	161,742	-	-	-	-	161,742	-	161,742
- cost of raising equity		-	-	16,877	-	-	-	-	16,877	-	16,877
- cost of raising finance		-	-	544,163	-	-	-	-	544,163	-	544,163
- other services		-	-	71,869	-	-	-	-	71,869	-	71,869
Convertible loans raised		-	-	-	-	5,650,631	-	-	5,650,631	-	5,650,631
Balance as reported 31 December 2017		20,233,799	43,259,389	5,743,609	11,038,204	5,650,631	460,410	(57,724,185)	28,661,858	-	28,661,858
Balance at 01 January 2018		20,233,799	43,259,389	5,743,609	11,038,204	5,650,631	460,410	(57,724,185)	28,661,858	-	28,661,858
Loss for the year		-	-	-	-	-	-	(21,149,965)	(21,149,965)	(4,779)	(21,154,744)
other comprehensive income exchange movement		-	-	-	-	-	991,531	-	991,531	-	991,531
Total comprehensive income		-	-	-	-	-	991,531	(21,149,965)	(20,158,435)	(4,779)	(20,163,214)
Shares Issued in the period		17,448,866	7,473,151	760,031	-	-	-	-	25,682,048	-	25,682,048
Expenses deducted from share premium		-	(950,135)	-	-	-	-	-	(950,135)	-	(950,135)
Lapsed and cancelled options		-	-	(34,497)	-	-	-	34,497	-	-	-
Lapsed and cancelled warrants		-	-	(35,506)	-	-	-	35,506	-	-	-
Conversion of loan notes	34	4,708,859	941,772	-	-	(5,650,631)	-	-	-	-	-
Share based payments - Share option charge	23	-	-	49,072	-	-	-	-	49,072	-	49,072
- Share warrants charge	23	-	-	715,870	-	-	-	-	715,870	-	715,870
Group provision for minority interest		-	-	-	-	-	-	(4,779)	(4,779)	4,779	-
Balance at 31 December 2018		**42,391,523**	**50,724,177**	**7,198,580**	**11,038,204**	**-**	**1,451,939**	**(78,808,925)**	**33,995,499**	**-**	**33,995,499**

The accompanying Notes on pages 74 to 93 form part of the financial statements.

Consolidated Statement of Cash Flows

For the year ended 31 December 2018 - Financials in £

	2018			2017		
	Group continuing operations	**Group discontinued operations**	**Group**	Group continuing operations	Group discontinued operations	Group
Cash flow from operating activities						
Loss after taxation	**(21,106,949)**	**(47,794)**	**(21,154,743)**	(13,660,371)	-	(13,660,371)
Adjustments to cash flows from non-cash items						
Depreciation and amortisation	**411,134**	**-**	**411,134**	365,470	-	365,470
Finance income	**(13,496)**	**-**	**(13,496)**	-	-	-
Finance costs	**80,187**	**-**	**80,187**	1,994,891	-	1,994,891
Taxation	**(759,413)**	**-**	**(759,413)**	(2,827,115)	-	(2,827,115)
Share based payments	**4,202,625**	**-**	**4,202,625**	-	-	-
Impairment of inventory	**1,908,925**	**-**	**1,908,925**	-	-	-
Foreign exchange	**346,285**	**-**	**346,285**	1,543,961	-	1,543,961
Cash flows from operations before changes in working capital	**(14,930,702)**	**(47,794)**	**(14,978,496)**	(12,583,163)	-	(12,583,163)
Changes in inventories	**(4,293,719)**	**-**	**(4,293,719)**	(191,784)	-	(191,784)
Property deposits made	**(371,988)**	**-**	**(371,988)**	(838,887)	-	(838,887)
Change in trade and other receivables	**97**	**-**	**97**	(2,139,752)	-	(2,139,752)
Change in trade and other payables	**(1,387,909)**	**23,651**	**(1,364,258)**	4,341,687	(8,530)	4,333,157
Deferred Licence fees received	**16,500,000**	**-**	**16,500,000**	-	-	-
Cash (used) / generated from operations	**(4,484,221)**	**(24,143)**	**(4,508,364)**	(11,411,899)	(8,530)	(11,420,429)
Interest paid	**(80,187)**	**-**	**(80,187)**	(568,667)	-	(568,667)
Convertible loan costs paid	**-**	**-**	**-**	(721,327)	-	(721,327)
Corporation tax receipt	**2,923,649**	**-**	**2,923,649**	3,125,121	-	3,125,121
Cash flows from operating activities	**(1,640,759)**	**(24,143)**	**(1,664,902)**	(9,576,772)	(8,530)	(9,585,302)
Cash flows from investing activities						
Interest received	**13,496**	**-**	**13,496**	-	-	-
Purchase of buildings plant and equipment	**(3,293,238)**	**-**	**(3,293,238)**	(123,597)	-	(123,597)
Capital expenditure on intangible assets	**(8,799,893)**	**-**	**(8,799,893)**	(8,437,115)	-	(8,437,115)
Cash flows from investment activities	**(12,079,635)**	**-**	**(12,079,635)**	(8,560,712)	-	(8,560,712)
Cash flows from financing activities						
Proceeds from issue of ordinary shares	**21,052,563**	**-**	**21,052,563**	250,000	-	250,000
Costs of share issue	**(650,135)**	**-**	**(650,135)**	-	-	-
Convertible loans	**-**	**-**	**-**	7,800,000	-	7,800,000
Short term loan receipts	**4,500,000**	**-**	**4,500,000**	8,703,968	-	8,703,968
Short term loan payments	**(10,247,218)**	**-**	**(10,247,218)**	-	-	-
Intra group cash transfers	**(24,483)**	**24,483**	**-**	(9,163)	9,163	-
Cash flows from financing activities	**14,630,727**	**24,483**	**14,655,210**	16,744,805	9,163	16,753,968
Increase/(decrease) in cash and cash equivalents	**910,334**	**340**	**910,675**	(1,392,679)	633	(1,392,045)
Exchange gain on cash and cash equivalents	**45,899**	**-**	**45,899**	-	-	-
Cash and cash equivalents at 01 January 2018	**38,824**	**17,654**	**56,479**	1,431,502	17,021	1,448,524
Cash and cash equivalents at 31 December 2018	**995,057**	**17,994**	**1,013,053**	38,824	17,654	56,479

The accompanying Notes on pages 74 to 93 form part of the financial statements.

Principal Accounting Policies – Group

For the year ended 31 December 2018

a. Accounting convention
These financial statements have been prepared under International Financial Reporting Standards ("IFRS") as adopted by the European Union and applied in accordance with the Companies Act 2006. The financial statements have been prepared on the historical cost basis modified to include certain assets and liabilities at fair value.

The preparation of financial statements in conformity with IFRS requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and opinions or statements received from competent professional advisers. These advisers include qualified valuers and financial institutions which have provided senior debt and associated facilities. The Directors have taken advantage of the exemption offered by Section 408 of the Companies Act 2006 not to prepare a separate statement of comprehensive income for the Parent Company.

Advanced Oncotherapy plc ("the Company") is a public limited company incorporated and domiciled in the UK. The nature of the operations and principal activities of the Company and its subsidiary undertakings (the "Group") are set out in the Strategic Report and Directors' Report on pages 4 to 45 and pages 64 to 65. These consolidated financial statements are presented in pounds sterling because that is the predominant currency of the economic environment in which the Group operates.

Critical judgments in applying accounting policies:

1. The values ascribed to Intangible assets. The Directors carried out an impairment review of the Intangible assets and found that no impairment is necessary. At 31 December 2018, the Group held intangible assets currently still being developed, for which the most sensitive assumption is the probability of final technical success and, given their nature, impairment adjustments triggered by future events that have yet to occur which may be material. In addition, there is a significant risk that impairments recognised in any one period may be subject to material adjustments in future periods. See Note 11 and Note u. below.

2. Inventory. The Directors have made significant accounting estimates in respect of the carrying value of inventory at the year-end both in respect of estimated selling prices and costs to complete the inventory. These estimates have been based on quoted amounts from suppliers and on discussions with potential customers. An impairment provision of £1.9m has been provided. A decrease of 10% of estimated sales price and total estimated costs would increase the impairment provision and loss by £2.3m and £2.4m respectively.

A summary of the Group accounting policies is set out below, together, where relevant, with an explanation of where changes have been made to previous policies on the adoption of new accounting standards in the year. Certain new standards, amendments and interpretations to existing standards have been published that are mandatory for the Group's accounting periods beginning on or after 1 January 2018 and these have been adopted in the financial statements. None of these standards had an impact on the current or prior year results or financial position of the Group, therefore no further disclosure is given.

b. Basis of preparation and going concern
The Group has made a loss of £20.1m (2017: £14.7m) and is presently pre-revenue and, as such, has relied upon equity and debt funding to progress it's development plans. Post year end, the Group has successfully raised £22.3m of further funds (see Note 31 for further detail).

The directors regularly review cash flow forecasts to determine whether the Group has sufficient cash reserves to meet its future working capital requirements and development plans. The Group's plans indicate that they need to raise further finance and the Directors are confident based on past history of successful fundraising and discussions with investors that the Group will be successful in raising these funds. Additionally, they consider they can defer settlement of creditors, reduce short term expenditure and obtain short-term finance should there be any delay in completing any such fundraising to allow continuance of their plans. They therefore consider it appropriate to prepare the Group's financial statements on a going concern basis.

However, as at the date of approval of these financial statements, there are no legally binding agreements in place in relation to any fundraising and as the success of any finance raising is outside the control of the company and is thus considered to be a material uncertainty. There can be no certainty that additional funds will be forthcoming which indicates the existence of a material uncertainty which may cast doubt about the Group's ability to continue as a going concern and therefore it may be unable to realise its assets and discharge its liabilities in the normal course of business. The financial statements do not include the adjustments that would result if the Group was unable to continue as a going concern.

c. Basis of consolidation
The consolidated financial information includes financial information in respect of the Group and all of its subsidiary undertakings.

The results of subsidiaries acquired or disposed of during the year are included in the consolidated statement of comprehensive income from the effective date of acquisition or up to the effective date of disposal, as appropriate. All intra-group transactions, balances, income and expenses are eliminated on consolidation.

The consolidated financial statements consolidate the financial statements of the Company and its subsidiary undertakings (together "the Group") drawn up to 31 December 2018.

A subsidiary is an entity controlled by the Company. Control is achieved where the Company:
- has power over the investee;
- is exposed, or has rights, to variable returns from its involvement with the investee; and
- has the ability to use its power to affect its returns.

Consolidation of a subsidiary begins when the Company obtains control over the subsidiary and ceases when the Company loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of profit or loss and other comprehensive income from the date the Company gains control until the date when the Company ceases to control the subsidiary.

Where necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with those used by the Group.

The purchase method of accounting is used to account for business combinations that result in the acquisition of subsidiaries by the Group. The cost of a business combination is measured as the fair value of the assets given, equity instruments issued and liabilities incurred or assumed at the date of exchange, plus costs directly attributable to the business combination. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. Any excess of the cost of the business combination over the acquirer's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities recognised is recorded as goodwill.

Inter-company transactions, balances and unrealised gains on transactions between the Company and its subsidiaries, which are related parties, are eliminated in full.

d. Investment properties
Investment properties are properties owned or leased by the Group which are held for long term rental income and capital appreciation. Investment property is initially recognised at cost and revalued at the balance sheet date to fair value as determined by the Directors. In arriving at their assessment of the Folkestone property, the Directors take advice from professionally qualified external valuers to determine open market value.

e. Intangible assets - Research and development
Development activities involve a plan or design for the production of new and innovative proton beam cancer therapy machines. Development expenditure is capitalised only if development costs can be measured reliably, the proton therapy machine is technically and commercially feasible, future economic benefits are probable, and the Group has sufficient resources available to complete development and to use, lease or sell the asset. The expenditure capitalised includes only the cost of gross direct labour that is directly attributable to preparing the asset for its intended use or third-party costs incurred directly on the development activities above. Capitalised development expenditure is measured at cost less accumulated amortisation and accumulated impairment losses. Other research and development expenditure not meeting the above criteria is recognised in the income statement as incurred. Capitalised development costs are amortised over the period from the date the development generates revenue. As at 31 December 2018 the proton therapy machines are still in the development phase and therefore no amortisation has been recognised in the income statement. Management estimate the useful economic life of the proton machines to be 20 years once development has been completed.

f. Property, plant and equipment
Depreciation is provided at the following annual rates in order to write off each asset over its estimated useful life:

• Fixtures and fittings	20% of cost
• Plant - equipment	14 % to 20% of cost
• Plant - LIGHT development equipment	20% of cost
• Computer equipment	33.3% to 50% of cost
• Leasehold Improvements	are written off over the term of the lease

Property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment losses. Where parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items of property, plant and equipment. Any write off to net realisable is recorded in cost of sales.

g. Cash and cash equivalents
Cash and cash equivalents are carried in the balance sheet at cost. For the purposes of the cash flow statement, cash and cash equivalents comprise cash on hand, deposits with banks and other short-term highly liquid investment maturities of three months or less, net of short term bank overdrafts.

h. Trade and other receivables
Trade and other receivables are recognised initially at the transaction price. They are subsequently measured less any provision for impairment in relation to expected credit losses. At each reporting date the Group assesses the expected credit losses and changes in credit risk since initial recognition of the receivable and a provision for impairment is recognised when considered necessary.

i. Trade and other payables
Trade and other payables are recognised initially at the transaction price and subsequently measured at amortised cost using the effective interest method.

j. Inventories
Stocks are stated at the lower of cost and realisable value. Cost is based on the first-in first-out principle. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of selling expenses. Any write down to net realisable value is recorded in cost of sales.

Work in progress is valued at the cost charged for material supplies and the cost charged by sub-contractors for work completed or in progress with those sub contractors. No element of Group overhead or finance cost has been included.

k. Revenue recognition
The Group has not recorded any revenue to date as it is remains in the development stage. In future periods, it will recognise revenue in accordance with the respective performance obligations as noted on the contracts with customers.

During the period, the company received an amount of £16.5m for an exclusive distribution agreement issued to Liquid Harmony Ltd. This amount is fully repayable if the entity does not complete the development of the products and have regulatory approval in China within 5 years of the signing of the agreement. As a result of the conditions attached requiring full repayment no revenue, has been recognised.

l. Income taxes
The charge for current taxation is based on the results for the year as adjusted for items which are non-assessable or disallowed.

Deferred tax is provided using the balance sheet liability method in respect of temporary differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax bases used in computation of taxable profit.

Deferred tax is determined using tax rates that have been enacted or substantially enacted by the balance sheet date and are expected to apply when the related, deferred tax asset is realised or the deferred tax liability is settled. It is recognised in profit or loss except when it relates to items credited or charged directly to equity, in which case the deferred tax is also dealt with in equity.

Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary difference can be utilised.

Deferred tax assets and liabilities are offset only when they relate to taxes levied by the same authority, with a legal right to set off and when the Group intends to settle them on a net basis.

m. Pensions
The Group makes defined contributions to employees' personal pension plans. Contributions payable to the employees' schemes are recognised as an expense in the statement of comprehensive income as incurred.

n. Share based payments
The cost of granting share options and other share based remuneration to employees and Directors is recognised through the statement of comprehensive income on a straight-line basis over the vesting period, based on the Group's estimate of shares that will eventually vest. These share based payments are measured at fair value at the date of grant by use of an option pricing model known as the Black – Scholes formula.

Issue of shares to employees as remuneration or bonuses are recorded at the share price at date of issue or approval as required by accounting standards.

For equity-settled transactions with non-employees, the costs are recognised through the statement of comprehensive income with measurement based on the fair value of goods or services received.

o. Foreign currencies
Transactions in currencies other than the entity's functional currency are recorded at the exchange rate prevailing at the transaction dates. Foreign exchange gains and losses resulting from settlement of these transactions and from retranslation of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

The assets and liabilities of foreign entities are translated into sterling at the rate of exchange ruling at the balance sheet date and their statements of comprehensive income and cash flows are translated at the average rate for the period. Exchange differences arising are transferred to reserves as a separate component of equity.

The Group's presentational currency is GBP.

p. Financial instruments
The Group's activities expose it primarily to the financial risks of changes in foreign currency exchange rates and interest rates.

Loans are initially recognised net of associated transaction costs. Subsequent to initial recognition, they are stated at amortised cost.

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

r. Financial liability and equity
Financial liabilities and equity instruments are classified according to the substance of the contractual arrangements entered into. An equity instrument is any contract that evidences a residual interest in the assets of the Company after deducting all of its liabilities.

s. Borrowing costs
All borrowing costs are recognised in profit or loss in the period in which they are incurred.

t. Segmental reporting
As the Group's business activities were not complex, being the development and building of the LIGHT system, and the management of a healthcare related property, management reviews information based on different locations and, accordingly, the operating segments are based on such a geographical split.

u. Impairment of non-current assets
The Group's main asset is it development costs which are not yet ready for use. As a result an annual impairment revenue review is performed which involves estimating the recoverable amount of the assets, which is the higher of its fair value less costs to sell and its value in use, is estimated in order to determine the extent of the impairment loss. Where the carrying value of an asset exceeds its recoverable amount (i.e. the higher of value in use and fair value less costs to sell), the asset is written down accordingly. Impairment charges are included in profit or loss, except to the extent they reverse gains previously recognised in other comprehensive income.

v. Leasing
Assets held under leases are classified as operating leases and are not recognised in the Group's statement of financial position. Payments made under operating leases are recognised in profit or loss on a straight-line basis over the term of the lease. Lease incentives received are recognised as part of the total lease expense, over the term of the lease.

IFRS 16 will primarily affect the accounting for the Group's operating leases and is effective for the next accounting period.

As at the reporting date, the Group has non-cancellable operating lease commitments of 10,907,572, see Note 30. Under IFRS 16, the obligations to pay the future leases rentals over the expected lease term (as outlined in Note 30) will be recognised as a lease liability (current and non-current) discounted at the incremental borrowing rate with a corresponding right of use asset also being recognised in the statement of financial position. Whilst there will be a material change in gross assets and liabilities, as a result of recognising the leases as right-of-use assets and liabilities, for the change in accounting policy, it is not anticipated that there will be a material impact on net assets.

Additionally, whilst the depreciation on the right of use asset and the interest on the finance liability would be different to the present operating lease charge, it is not expected to have a material impact on the reported result in the statement. There are no other standards issued not yet effective that are expected to have a material impact on the results of the Group.

Notes to the Accounts – Group

For the year ended 31 December 2018 - Financials in £

1. Discontinued operations

	Note	2018 Healthcare related properties- Germany	2018 Group	2017 Healthcare related properties- Germany	2017 Group
Cost of sales		-	-	-	-
Gross profit		-	-	-	-
Administrative expenses		**(47,794)**	**(47,794)**	-	-
Operating loss		**(47,794)**	**(47,794)**	-	-
Finance income		-	-	-	-
Loss on ordinary activities before taxation		**(47,794)**	**(47,794)**	-	-

It is expected that the remaining German companies will be wound up in 2019 following the nominal sale of their remaining assets during 2018. No further costs are expected to be incurred in closing down the discontinued operations that have not already been provided for.

2. Segment reporting

	Notes	2018 Development of Proton Therapy - UK	Development of Proton Therapy - Switzerland	Development of Proton Therapy - USA	Healthcare related properties- UK	Total - Continuing operations	Discontinued operations	Group
Revenue		-	-	-	-	-	-	-
Cost of sales		**(1,908,925)**	-	-	-	**(1,908,925)**	-	**(1,908,925)**
Gross Loss		**(1,908,925)**	-	-	-	**(1,908,925)**	-	**(1,908,925)**
Administrative expenses		**(13,139,378)**	**(5,953,420)**	**(750,169)**	**(47,779)**	**(19,890,746)**	**(47,796)**	**(19,938,542)**
Operating loss		**(15,048,303)**	**(5,953,420)**	**(750,169)**	**(47,779)**	**(21,799,671)**	**(47,796)**	**(21,847,467)**
Finance income	4	**13,496**	-	-	-	**13,496**	-	**13,496**
Finance costs	5	**(80,187)**	-	-	-	**(80,187)**	-	**(80,187)**
Loss on ordinary activities before taxation		**(15,114,994)**	**(5,953,420)**	**(750,169)**	**(47,779)**	**(21,866,362)**	**(47,796)**	**(21,914,158)**
Capital Expenditure								
Intangible Assets	11	**4,649,608**	**4,150,285**	-	-	**8,799,893**	-	**8,799,893**
Property, Plant and Equipment	12	**57,912**	**3,234,210**	**1,116**	-	**3,293,238**	-	**3,293,238**
Total assets		**32,331,576**	**26,751,987**	**36,321**	**312,398**	**59,432,280**	**17,994**	**59,450,274**
Total liabilities		**(24,347,555)**	**(1,010,925)**	**(56,569)**	**(3,203)**	**(25,418,252)**	**(36,525)**	**(25,454,777)**
Net assets/(liabilities)		**7,984,021**	**25,741,062**	**(20,248)**	**309,195**	**34,014,028**	**(18,531)**	**33,995,497**

During 2018 the Group operated in two business segments: Proton Therapy and Healthcare related properties.

The Healthcare related property UK segment relates to the Group's property in Folkestone which was not disposed as part of the disposal of the Healthcare Property Company (HPC). The management team reviewed its strategic options for the Healthcare related property business in order to re-focus resources solely onto the Proton Therapy segment. An offer, subject to contract for the Folkestone property has been received and is expected to complete before the AGM.

2. Segment reporting continued

	Notes	2017 Development of Proton Therapy - UK	Development of Proton Therapy - Switzerland	Development of Proton Therapy - USA	Healthcare related properties- UK	Total - Continuing operations	Discontinued operations	Group
Revenue		-	-	-	-	-	-	-
Cost of sales		-	-	-	-	-	-	-
Gross Loss		-	-	-	-	-	-	-
Administrative expenses		(9,548,038)	(4,155,358)	(725,342)	(63,857)	(14,492,595)	-	(14,492,595)
Operating loss		(9,548,038)	(4,155,358)	(725,342)	(63,857)	(14,492,595)	-	(14,492,595)
Finance income	4	-	-	-	-	-	-	-
Finance costs	5	(1,996,160)	-	-	1,269	(1,994,891)	-	(1,994,891)
Loss on ordinary activities before taxation		(11,544,198)	(4,155,358)	(725,342)	(62,588)	(16,487,486)	-	(16,487,486)
Capital Expenditure								
Intangible Assets	11	3,405,901	5,031,214	-	-	8,437,115	-	8,437,115
Property, Plant and Equipment	12	18,917	100,597	4,084	-	123,597	-	123,597
Total assets		21,840,961	23,197,398	22,005	322,076	45,382,438	17,928	45,400,366
Total liabilities		(14,510,846)	(2,138,070)	(65,584)	(11,134)	(16,725,634)	(12,874)	(16,738,508)
Net assets/(liabilities)		7,330,115	21,059,328	(43,579)	310,942	28,656,804	5,054	28,661,858

3. Operating loss

	Note	2018	2017
Operating loss is arrived at after charging:			
Staff costs	7	**10,270,845**	6,828,056
Depreciation	12	**411,134**	365,470
Foreign exchange loss or (gain)		**346,285**	(79,203)
Charitable donations		**16,291**	-
Inventory provision		**1,908,925**	-
Amounts payable to the Group's Auditor and their associates for:			
- audit of the Group's annual accounts		**15,000**	15,000
- audit of the Group's subsidiaries		**32,500**	32,500
- taxation compliance		**5,500**	5,500

Notes to the Accounts – Group

Continued - Financials in £

4. Finance income

	2018	2017
Interest receivable on deposits	**13,496**	-
Total	**13,496**	-

The Group places surplus funds with deposit takers rated at least F1/A+ by Fitch for periods between one day and one month.

5. Finance costs

	2018	2017
On mortgage finance (see Note 18)	**-**	(1,269)
On other short term loans	**80,187**	1,274,833
Convertible loan note costs	**-**	721,327
Total	**80,187**	1,994,891

The convertible loan note costs of £721,327 in 2017 related to the contract between Bracknor and the Group entered into and according to which if the applicable conversion price at the time of the conversion was lower than the par value of the shares, the Group was entitled to align the conversion price with the par value of the shares and compensate Bracknor in cash for the difference between the conversion price and the par value.

6. Taxation on profit for ordinary activities

(a) Tax (credit) / charge comprises	2018	2017
Current tax		
UK corporation tax charge/(credit) for the year	**(685,764)**	(2,850,000)
UK corporation tax charge/(credit) for the previous year	**(73,649)**	22,885
Deferred tax		
Origination and reversal of temporary differences	**-**	-
Total tax credit	**(759,413)**	(2,827,115)

6. Taxation on profit for ordinary activities continued

(b) Factors affecting tax credit for the year

The tax assessed for the year differs from the standard rate of corporation tax in the UK (19.0%) (2017: 19.25%)
The differences are explained below:

	2018	2017
Loss on ordinary activities before tax	**(21,914,156)**	(16,487,486)
Loss on ordinary activities multiplied by the standard rate of corporation tax in the UK at 19.0% (2017: 19.25%)	**(4,163,690)**	(3,173,841)
Effects of:		
Research and Development claim this year	**(685,764)**	(2,850,000)
Research and Development claim prior year	**(73,649)**	22,885
Permanent differences	**820,966**	315,764
Capital allowances in excess of depreciation	**65,964**	48,385
Short term timing differences	**-**	1,080
Unprovided losses carried forward / (utilised)	**3,276,760**	2,808,611
Tax credit for the year	**(759,413)**	(2,827,115)

(c) Unprovided deferred tax assets at 19.0% (2017: 19.25%)	2018	2017
Losses carried forward	**(11,364,825)**	(7,937,048)
R&D tax credit on Intangible assets	**4,088,285**	4,142,078
Accelerated capital allowances	**196,397**	186,230
Total	**(7,080,143)**	(3,608,740)

No deferred tax asset has been recognised on the above item on the grounds that it is uncertain when taxable profits will arise against which losses carried forward may be utilised.

7. Staff costs

	2018	2017
Wages and salaries	**8,913,690**	8,302,410
Social security costs	**932,806**	812,062
Pension costs	**677,476**	646,961
Other benefits	**359,965**	387,839
Share based payments	**3,011,539**	749,310
Total	**13,895,477**	10,898,582

Staff costs include amounts of £3,624,632 (2017: £4,070,526) which have been capitalised within development projects during the year.
Details of employee share options are set out in Note 21.
The monthly average number of persons employed during 2018 was 99 (2017: 90), categorised as follows:

	2018	2017
Managerial	**7**	9
Operational	**14**	9
Product Development	**45**	52
Administrative	**33**	20
Total	**99**	90

The total number of employees at 31 December 2018 was 118 (31 December 2017 - 93)

Notes to the Accounts – Group

Continued - Financials in £

8. Directors' Remuneration

The salaries and benefits of the Directors of the Group payable by the Company or any of the Group companies for the year ended 31 December 2018 were as follows:

			2018						
	Appointed	Resigned	Base salary	Fair Value of Bonus Payment	Pension	Medical Board Fees	Compensation for loss of office	Other benefits	**Total**
Dr Michael Sinclair, Exec Chairman	16 Jun 06		194,967	958,334	11,044	-	-	12,747	**1,177,092**
Nicolas Serandour, CEO	27 Aug 14		232,645	958,334	21,525	-	-	2,077	**1,214,581**
Michael Bradfield	26 Apr 13		30,000	-	-	-	-	-	**30,000**
Prof Steve Myers	26 Jan 17		221,246	191,667	-	-	-	3,365	**416,279**
Dr Nick Plowman	09 Feb 17		30,000	-	-	6,000	-	-	**36,000**
Dr Enrico Vanni	01 Oct 13		30,000	-	-	-	-	-	**30,000**
Hans von Celsing	26 Jan 17		30,000	-	-	-	-	-	**30,000**
Renhua Zhang	28 Aug 18		10,000	-	-	-	-	-	**10,000**
Chunlin Han	28 Aug 18		10,000	-	-	-	-	-	**10,000**
Yuelong Huang	28 Aug 18		10,000	-	-	-	-	-	**10,000**
Peter Sjöstrand	28 Aug 18		10,000	-	-	-	-	-	**10,000**
Gabriel Urwitz	28 Aug 18		10,000	-	-	-	-	-	**10,000**
Prof Chris Nutting	25 Oct 13	02 Jul 18	15,000	-	-	3,000	-	-	**18,000**
Dr Euan Thomson	20 Feb 14	02 Jul 18	15,000	-	-	-	-	-	**15,000**
Sanjeev Pandya	22 Nov 13	02 Jul 18	124,644	-	39,971	-	275,069	1,039	**440,723**
Total			973,502	2,108,335	72,540	9,000	275,069	19,228	**3,457,675**

Dr Michael Sinclair, Nicolas Serandour and Professor Steve Myers elected to take their 2018 bonus in shares. The bonuses were awarded on 7 December 2017 at the same time as the announcement of the exclusive distribution agreement for China and other geographies and their bonuses were reinvested into the fundraising that completed in February 2018. The issue of shares was approved by shareholders on 23 January 2018 when the fair value of the bonus was calculated. The completion of the Liquid Harmony agreement was subject to approval from the Government of the People's Republic of China, this was granted on 16 February 2018 and the shares were issued on that day.

	Fair value of the shares measured:		
	At the time of the December 2017 announcement:	At the February 2018 Subscription price	Bonus at fair value
Dr Michael Sinclair, Executive Chairman	550,000	500,000	958,334
Nicolas Serandour, CEO	550,000	500,000	958,334
Prof Steve Myers	110,000	100,000	191,667

Nicolas Serandour was awarded an increase in basic salary during 2018 but elected not to take the increase until the Group is closer to first patient treatment, this is included in creditors.

None of the Non-Executive Directors took their 2018 salary during the year and are included in creditors.

			2017						
	Appointed	Resigned	Base salary	Bonus payment	Pension	Medical Board Fees	Compensation for loss of office	Other benefits	**Total**
Dr Michael Sinclair, Exec Chairman	16 Jun 06		189,000	-	18,900	-	-	11,223	**219,123**
Nicolas Serandour, CEO	27 Aug 14		215,250	-	21,525	-	-	1,935	**238,710**
Michael Bradfield	26 Apr 13		30,000	-	-	-	-	-	**30,000**
Prof Steve Myers	26 Jan 17		208,412	-	-	-	-	4,148	**212,560**
Dr Nick Plowman	09 Feb 17		27,500	-	-	6,000	-	-	**33,500**
Dr Enrico Vanni	01 Oct 13		30,000	-	-	-	-	-	**30,000**
Hans von Celsing	26 Jan 17		27,500	-	-	-	-	-	**27,500**
Tim Lebus	08 Apr 13	26 Jan 17	2,500	-	-	-	-	-	**2,500**
Prof Chris Nutting	25 Oct 13	02 Jul 18	30,000	-	-	6,000	-	-	**36,000**
Dr Euan Thomson	20 Feb 14	02 Jul 18	30,000	-	-	-	-	-	**30,000**
Sanjeev Pandya	22 Nov 13	02 Jul 18	213,676	-	21,367	-	-	1,817	**236,860**
Total			1,003,838	-	61,792	12,000	-	19,123	**1,096,753**

8. Directors' Remuneration continued

Dr Enrico Vanni elected to take his 2017 salary in shares during the year. Market value at the time of the share issue was £30,000 (2017: £30,000)

No Directors exercised any options or warrants during the year or the preceding year.

The Directors consider that there are no other employees who should be considered as key personnel under IFRS.

Directors' share options

	At 01 Jan 2018	Granted during the year	Lapsed or expired during the year	Exercised during the year	At 31 Dec 2018	Option price pence	Date of grant	Earliest exercise date	Expiry date
Michael Bradfield	**266,667**	-	(266,667)	-	**-**	125.0p	01 Oct 14	01 Oct 17	30 Sep 18
	266,666	-	-	-	**266,666**	125.0p	01 Oct 14	01 Oct 18	30 Sep 19
	400,000	-	-	-	**400,000**	200.0p	05 May 15	01 Jul 15	30 Jun 20
Prof Chris Nutting	**200,000**	-	(200,000)	-	**-**	75.0p	03 Jan 14	03 Jan 14	31 Oct 18
	100,000	-	-	-	**100,000**	87.5p	01 Feb 14	01 Feb 14	31 Jan 19
Sanjeev Pandya	**800,000**	-	-	-	**800,000**	80.0p	30 Apr 14	30 Apr 14	31 Dec 21
	266,668	-	-	-	**266,668**	87.5p	30 Apr 14	30 Apr 14	31 Dec 21
	200,000	-	-	-	**200,000**	200.0p	05 May 15	01 Jul 15	31 Dec 21
Nicolas Serandour	**400,000**	-	-	-	**400,000**	95.0p	01 Oct 14	01 Oct 16	30 Sep 19
	200,000	-	-	-	**200,000**	200.0p	05 May 15	01 Jul 15	30 Jun 20
Dr Michael Sinclair	**32,000**	-	(32,000)	-	**-**	725.0p	13 Sep 07	13 Sep 10	13 Sep 18
	800,000	-	-	-	**800,000**	87.5p	30 Apr 14	30 Apr 14	29 Apr 19
Dr Euan Thomson	**200,000**	-	-	-	**200,000**	87.5p	20 Feb 14	20 Feb 14	31 Jan 19
Dr Enrico Vanni	**100,000**	-	-	-	**100,000**	200.0p	05 May 15	01 Jul 15	30 Jun 20
Hans von Celsing	**200,000**	-	-	-	**200,000**	250.0p	17 Mar 17	17 Mar 17	31 Mar 19
Total	**4,432,001**	-	(498,667)	-	**3,933,334**	123.3p			

As disclosed above nil (2017: nil) options have been issued to the Directors during in the year. In accordance with IFRS, options issued prior to these two years have been valued in accordance with the Group's accounting policy for share options under Black-Scholes as disclosed in Note 21.

The fair value of options issued in prior years and charged to the Consolidated Statement of Comprehensive Income was £22,519 (2017: £284,402) for the year.

Directors' share warrants

	At 01 Jan 2018	Granted during the year	Lapsed or expired during the year	Exercised during the year	At 31 Dec 2018	Option price pence	Date of grant	Earliest exercise date	Expiry date
Dr Enrico Vanni	**200,000**	-	-	-	**200,000**	125.0p	30 Sep 13	30 Sep 13	30 Sep 18
	-	40,816	-	-	**40,816**	100.0p	31 Aug 18	31 Aug 18	31 Aug 23
Hans von Celsing	**-**	6,000	-	-	**6,000**	100.0p	31 Aug 18	31 Aug 18	31 Aug 23
Dr Nick Plowman	**-**	61,224	-	-	**61,224**	100.0p	31 Aug 18	31 Aug 18	31 Aug 23
Total	**200,000**	108,040	-	-	**308,040**	116.2p			

As disclosed above 108,040 (2017: nil) warrants have been issued to the Directors during in the year. In accordance with IFRS these have been valued in accordance with the Group's accounting policy for share options under Black-Scholes as disclosed in Note 21.

The fair value of warrants issued in this and prior years and charged to the Consolidated Statement of Comprehensive Income was £42,273 (2017: £11,596) for the year.

Notes to the Accounts – Group

Continued - Financials in £

9. Pensions

The Group operates a defined contribution pension scheme. Contributions payable for the period are charged in the statement of comprehensive income. Three Directors (2017: Three) accrued retirement benefits during the year. A charge of £72,540 (2017: £61,792) has been included in the year for the Directors.

10. Loss per share

Basic loss per share is calculated by dividing the loss for the period by the weighted average number of ordinary shares in issue during the year. This is disclosed on page 70 on the income statement. An alternative to this is the loss per share based on the comprehensive loss attributable to the equity holders of the group. This is shown below.

	2018	2017
Loss attributable to equity holders of the parent company (£'s)	**(21,149,964)**	(13,660,371)
Weighted average number of ordinary shares in issue (000s)	**150,542**	77,832
Loss per share (pence per share) - continuing operations	**(14.02)p**	(17.55)p
Loss per share (pence per share) - discontinued operations	**(0.03)p**	0.00p

Diluted loss per share
The Group has two categories of dilutive potential ordinary shares - share options and warrants. Both the Group's share options and warrants have been excluded from the calculation of diluted loss per share as the loss made in the period would make these anti-dilutive. These instruments could potentially be dilutive in the future.

Events after reporting period
As at 27 June 2019 the Company had 200,428,592 ordinary shares in issue. Assuming the same loss for the year ended 31 December 2018 the basic loss per share for the year ended 31 December 2018 divided by the current number of shares in issue would decrease to (7.99)p per share (continuing operations, exc. non-controlling interests). Using the full comprehensive loss, the loss would decrease to (8.01)p per share.

11. Intangible assets

	LIGHT Accelerator	Treatment Software	Total
Development costs			
At 01 January 2017	20,283,592	3,071,473	23,355,065
Additions	5,486,710	2,950,405	8,437,115
Foreign exchange difference	(990,699)	(231,502)	(1,222,201)
At 31 December 2017	24,779,603	5,790,376	30,569,979
Development costs			
At 01 January 2018	24,779,603	5,790,376	30,569,979
Additions	3,979,572	4,820,321	8,799,893
Foreign exchange difference	580,884	214,317	795,201
At 31 December 2018	**29,340,059**	**10,825,014**	**40,165,073**

The total cost includes £13,794,904 (2017: £10,170,272) of internally generated costs.

For the purpose of impairment testing of intangible assets, the Group's continuing operations are regarded as a single cash-generating unit relating to the development and operation of the LIGHT machine.

The recoverable amount is based on value in use using discounted risk-adjusted projections of the Group's pre-tax cash flows over 10 years and then at a flat rate into perpetuity which is considered by the Board as a reasonable period given the long development and expected operational life cycle of the LIGHT machine. The projections include assumptions about the number of units to be sold in each financial year, expected unit selling price and production cost, pipeline conversion, competition from rival products and pricing policy as well as the possibility of new technology entering the market. In setting these assumptions the Directors consider their own past experience, external sources of information (including information on expected increases and ageing of the populations in our established markets and the expanding patient population in newer markets), our knowledge of competitor activity and our assessment of future changes in the proton beam industry. The 10 year period is covered by internal budgets and forecasts. Given that internal budgets and forecasts are prepared for all projections, no general growth rates are used to extrapolate internal budgets and forecasts for the purposes of determining value in use. The methods used to determine recoverable amounts have remained consistent with the prior year. The weighted average pre-tax discount rate used was approximately 12.5% (2017: 12.5%).

As a further check, the market capitalisation is compared to the book value of the Group's net assets: as of the date of this report, the market capitalisation is higher than the book value of the net assets.

No impairment was found necessary.

The Group has also performed sensitivity analysis calculations on the projections used and discount rate applied. By their nature, the value in use calculations are sensitive to the underlying methods, assumptions and estimates. Consistent with prior years, as part of the impairment review process, management has identified that reasonably possible changes in certain key assumptions may cause the carrying amount of the intangible assets to exceed the recoverable amount. At 31 December 2018, the Group held intangible assets currently still being developed, for which the most sensitive assumption is the probability of final technical success, and given their nature, impairment adjustments triggered by future events that have yet to occur may be material. In addition, there is a significant risk that impairments recognised in any one period may be subject to material adjustments in future periods.

As disclosed in accounting policy b, the Company needs to secure funding to complete the development plans. The Directors are confident of this being secured, in order to meet the project timeline.

12. Plant and equipment

	Leasehold property	Computer hardware and software	Fixtures, fittings and equipment	Total
Cost				
At 01 January 2017	177,251	185,560	1,467,967	1,830,778
Additions	-	63,336	60,261	123,597
Disposals	-	(1,998)	-	(1,998)
Foreign exchange difference	-	(7,086)	(54,777)	(61,863)
At 31 December 2017	177,251	239,812	1,473,452	1,890,514
Depreciation				
At 01 January 2017	-	89,006	277,507	366,514
Charge for the year	-	69,987	295,483	365,470
Disposals	-	(1,998)	-	(1,998)
Foreign exchange difference	-	(2,385)	(18,025)	(20,409)
At 31 December 2017	-	154,612	554,966	709,577
Net book value				
At 01 January 2017	177,251	96,554	1,190,460	1,464,264
At 31 December 2017	177,251	85,200	918,486	1,180,937
Cost				
At 01 January 2018	177,251	239,812	1,473,452	1,890,514
Additions	2,884,874	124,485	283,879	3,293,238
Foreign exchange difference	-	4,307	50,939	55,246
At 31 December 2018	**3,062,125**	**368,604**	**1,808,270**	**5,238,998**
Depreciation				
At 01 January 2018	-	154,612	554,966	709,577
Charge for the year	27,932	85,726	297,475	411,134
Foreign exchange difference	-	3,745	27,812	31,557
At 31 December 2018	**27,932**	**244,083**	**880,253**	**1,152,268**
Net book value				
At 01 January 2018	177,251	85,200	918,486	1,180,937
At 31 December 2018	**3,034,193**	**124,521**	**928,017**	**4,086,730**

The additions to Leasehold property relate to the site at STFC Daresbury, the work is expected to complete in Q3 2019. The work is expected to cost a further £1,141,000 during 2019.

Notes to the Accounts – Group

Continued - Financials in £

13. Investment property

	Leasehold over 50 years	Total
Investment properties		
At 01 January 2017	310,000	310,000
Impairment charge	-	-
At 31 December 2017	310,000	310,000
Investment properties		
At 01 January 2018	310,000	310,000
Impairment charge	-	-
At 31 December 2018	**310,000**	**310,000**

An offer, subject to contract, for the medical facility at Folkestone has been received by the Directors and the Directors do not consider any further impairment is necessary.

The sale is expected to complete before the AGM. During the year, the group incurred operating expenses of £47,779 (2017: £63,856) in respect of the investment property at Folkestone, which did not generate any rental income during the year.

	Leasehold over 50 years	Total
Geographical analysis		
Investment properties (UK)	310,000	310,000
At 31 December 2018	**310,000**	**310,000**

14. Trade and other receivables

	2018	2017
Due greater than 1 year		
Property rent deposits	**710,874**	838,887
Property decommissioning deposits	**500,000**	-
Total due greater than 1 year	**1,210,874**	838,887
Current receivables		
VAT recoverable	**207,881**	104,139
Advance payments to suppliers	**576,772**	1,327,896
Prepayments	**1,180,042**	532,758
	1,964,695	1,964,792
Corporation tax	**685,764**	2,850,000
Total current receivables	**2,650,459**	4,814,792

The amount for Corporation tax is in respect of a claim for Research and Development costs. The 2017 claim of £2,923,649, was received in September and October 2018. It is expected that full payment of the 2018 claim of £685,764 will be received in Q3 2019.

15. Cash and cash equivalents

		2018	2017
Cash and cash equivalents		**1,013,053**	56,479
Amounts in foreign exchange denominated by	Swiss Franc	**87,465**	9,307
	Euro	**63,355**	7,718
	US Dollar	**23,239**	6,836
	Sterling	**838,994**	32,618

16. Inventories

	2018	2017
Work in progress - LIGHT	**10,014,086**	7,629,292
Total	**10,014,086**	7,629,292

All of the above items of Inventory have been valued at cost less an impairment provision considered necessary by the Directors. £1,908,925 (2017: £ nil) relating to the LIGHT work in progress has been expensed to the income statement.

Costs included in Inventory are for finished components of the LIGHT machine that will be sold as part of the first LIGHT installation.

Notes to the Accounts – Group

Continued - Financials in £

17. Trade and other payables

	2018	2017
Due greater than 1 year		
Licence Fee Received	**16,500,000**	-
Total due greater than 1 year	**16,500,000**	-

The agreement under which the license fee was received from our Chinese partner, Liquid Harmony, a shareholder, requires certain milestones to be met within a five year period including development of the products and obtaining regulatory approval in China within 5 years. If these conditions are not met the amount will be fully repayable.

	2018	2017
Current		
Trade payables	**2,775,548**	4,032,260
Other taxes and social security	**739,268**	1,253,635
Accruals and deferred income	**2,439,961**	2,205,395
Total	**5,954,777**	7,491,290

18. Borrowings/(net funds)

	2018	2017
Amounts falling due within one year		
Secured loans	**3,000,000**	7,295,000
Unsecured loans	**-**	1,952,218
Total amounts falling due within one year	**3,000,000**	9,247,218
Total borrowings	**3,000,000**	9,247,218
Cash and cash equivalents	**(1,013,053)**	(56,479)
Net debt/(Net funds)	**1,986,947**	9,190,739
The maturity profile of gross debt is as follows		
Repayable within one year	**3,000,000**	9,247,218
Total borrowings	**3,000,000**	9,247,218

The loan in 2018 is secured against an agreement to lease the Harley Street site and is expected to be repaid during 2019. The loan agreement allows for annual interest of 10%. The loan is repayable in Swiss Francs calculated at the rate prevailing when the loan was received. The CHF value at the time the loan was received was CHF 3,829,263. At the Balance Sheet date the GBP value was £2,991,609. No adjustment has been made for the small currency exchange gain.

The secured loans in 2017 were fully repaid in May 2018. Of the unsecured loans in 2017, £500,000 was converted into equity in February 2018, the remaining loans were repaid in full by the end of February 2018.

19. Financial instruments

The Group's principal financial instruments comprise short-term receivables and payables, short-term bank deposits and cash. There is currently no material difference between the carrying value of financial assets and liabilities and their fair value. The prime objectives of the Group's policy towards financial instruments are to maximise returns on the Group's cash balances, manage the Group's working capital requirements and finance the Group's ongoing operations.

Capital management
The Group's objectives when maintaining capital are:

- to safeguard the entity's ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders, and
- to provide an adequate return to shareholders.

The Group does not yet have any significant recurring revenues and finances its operations through the issue of new shares and loans. The Group's capital resources are managed to ensure it has resources available to invest in operational activities designed to generate future income. These resources were represented by £1,013,053 of cash as at 31 December 2018. During 2018 the Group utilised a number of short-term debt facilities in order to provide liquidity to the group.

	2018	2017
Assets		
Total assets	**59,450,275**	45,400,366
Debt		
Secured Loans	**3,000,000**	7,295,000
Unsecured Loans	**-**	1,952,218
	3,000,000	9,247,218
Equity		
Share capital and share premium	**93,115,700**	63,493,188
Reserves	**(59,120,202)**	(34,831,331)
	33,995,498	28,661,857
Total capital	**36,995,498**	37,909,075
Debt as a % of total capital	**8.1%**	24.4%
Debt as a % of total assets	**5.0%**	20.4%

Management of financial risk
The main risks associated with the Group's financial instruments have been identified as interest rate risk, liquidity risk, exchange rate risk, and credit risk. The Board is responsible for managing these risks and the policies adopted, which have remained largely unchanged throughout the year, are set out below.

Interest rate risk
The Group has debts which are the subject of fixed interest rate agreements and, therefore, there is no interest rate risk arising.

Liquidity risk
The Group has financed operations to date through the proceeds of the private placement of equity and debt instruments. In connection with its business plan, management anticipates additional increases in operating expenses, working capital requirements, and capital expenditures in line with the growth of its business, relating to the lease for the assembly site, the purchase of additional inventory, the hiring of personnel, and marketing expenses. It expects that those will continue to be funded through a combination of existing funds and further issuances of shares, and debt issuances. Thereafter, it is expected that the Group will need to raise additional capital and generate revenues to meet long-term operating requirements. Additional issuances of equity will result in dilution to current shareholders.

All of the Group's liabilities are due within three months and the long term liabilities will only be repayable if certain milestones, as indicated in Note 17, are not met.

Notes to the Accounts – Group

Continued - Financials in £

19 . Financial instruments continued

Exchange rate risk
Foreign exchange risk arises when individual Group entities enter into transactions denominated in a currency other than their functional currency. The Group's policy is, where possible, to allow Group entities to settle liabilities denominated in their functional currency). Where Group entities have liabilities denominated in a currency other than their functional currency (and have insufficient reserves of that currency to settle them), cash already denominated in that currency will, where possible, be transferred from elsewhere within the Group.

As of 31 December 2018 the Group's net monetary assets by functional currency of the Group's entities were as follows.

	Functional currency of entity				
Currency denomination of monetary assets/liabilities	GBP	CHF	GBP	USD	**Total**
GBP	894,201	(1,948)	(19,336)	-	**872,917**
CHF	(3,143,417)	(328,178)	-	-	**(3,471,595)**
Euro	(1,510,373)	(16,103)	-	-	**(1,526,477)**
USD	(71,357)	-	-	(21,178)	**(92,535)**
SEK	137,300	-	-	-	**137,300**
Total	**(3,693,646)**	**(346,229)**	**(19,336)**	**(21,178)**	**(4,080,390)**

The Directors consider that a movement of 10% of the Euro and CHF represents the entities exposure to foreign exchange risk and do not consider the impact to be material therefore no sensitivity analysis is presented.

Credit risk
The Group is not currently trading and has limited financial assets and therefore the Directors' do not consider that credit risk is material.

Cash at bank is held only with reputable banks with high quality external credit ratings which represents the maximum credit exposure. This represents the maximum credit risk to the Group.

Fair values of financial assets and financial liabilities
All of the Group's financial instruments are measured at amortised cost. A comparison of the fair value of the Group's financial assets and liabilities is set out below. The fair value of borrowings has been calculated by obtaining estimates of the costs involved in redeeming the current loan arrangements at 31 December 2018 and comparing these with estimates of the present value of the cash flows using market rates as at 31 December 2018.

	2018		2017	
	Book value	**Fair value**	Book value	Fair value
Trade and other payables	**(5,954,777)**	**(5,954,777)**	(7,491,290)	(7,491,290)
Cash and cash equivalents	**1,013,053**	**1,013,053**	56,479	56,479
Borrowings - current	**(3,000,000)**	**(3,000,000)**	(9,247,218)	(9,247,218)

20. Equity share capital

	2017				
Ordinary shares of 25p each	Number	Share Capital	Share Premium	Total	p/Share
As at 01 January 2017	72,467,783	18,116,946	43,117,742	61,234,688	84.50p
Issued for cash	833,333	208,333	41,667	250,000	30.00p
Conversion of loan notes	7,411,729	1,852,932	97,068	1,950,000	26.31p
Loan note conversion fees	222,349	55,587	2,913	58,500	26.31p
Total for year 2017	**8,467,411**	**2,116,853**	**141,647**	**2,258,500**	**26.67p**
As at 31 December 2017	**80,935,194**	**20,233,799**	**43,259,389**	**63,493,188**	**78.45p**
Shares Issued in the period	69,725,103	17,448,866	6,523,016	23,971,882	34.38p
Conversion of loan notes	18,905,796	4,708,859	941,772	5,650,631	29.89p
Total for year 2018	**88,630,899**	**22,157,725**	**7,464,788**	**29,622,513**	**33.42p**
As at 31 December 2018	**169,566,093**	**42,391,523**	**50,724,177**	**93,115,701**	**54.91p**

The Directors were authorised at the 2018 Annual General Meeting to allot and issue up to 30,100,335 shares. 13,136,859 have been issued as shares and 2,617,372 issued as warrants. The remaining authority will lapse at the 2019 Annual General Meeting.

In February 2018, the Company issued 69,556,481 shares of 25p for total consideration £22,745,110 at fair value (£20,869,945 at subscription price) comprising cash, staff bonuses and also including settlement of convertible loans and other creditors. Issue costs of £300,000 were incurred.

In May 2018, 5,127,560 shares were issued when the remaining convertible loan holder converted the loan in accordance with the terms of the agreement.

In August 2018, 850,000 shares were issued on the exercise of warrants raising and a further fundraising occurred issuing 13,086,859 shares for total proceeds of £6,412,561. Issue costs of £650,135 were incurred on the issue. 2,617,372 warrants were issued to the subscribers which were fair valued as highlighted in Note 21 and the value transferred to the share option reserve.

After the year end, the Directors were further authorised at a General Meeting in January 2019 to allot and issue up to 25,000,000 additional shares, 25,000,000 of these had been allotted at the date of this report. At the same meeting, the Directors were additionally authorised to allot and issue up to 58,369,827, 5,862,500 of these shares had been allotted at the time of this report. The remaining authority will expire at the conclusion of the Annual General Meeting of the Company to be held in 2019, unless previously renewed, varied or revoked by the Company in general meeting.

Notes to the Accounts – Group

Continued - Financials in £

21. Share based payments

The Groups share options are detailed in the note below. The options in issue are all equity options and vest over a term of one to five years. They do not have performance conditions attached.

(a) Share Options

Share options held by Directors are disclosed in Note 8. The total number of options outstanding at the year end are as follows.

Grant date	Maximum date of exercsie	Exercise price	Outstanding at start of period 01 January 2018	Issued in the period	Lapsed in the period	**Share options as at 31 December 2018**
12-Sep-11	13-Sep-18	725.00p	84,000	-	(84,000)	**-**
01-Sep-13	31-Aug-18	75.00p	80,000	-	-	**80,000**
03-Jan-14	31-Oct-18	75.00p	300,000	-	(300,000)	**-**
03-Jan-14	02-Jan-19	126.25p	80,000	-	-	**80,000**
20-Jan-14	20-Jan-19	93.75p	100,000	-	-	**100,000**
01-Feb-14	31-Jan-19	87.50p	300,000	-	-	**300,000**
30-Apr-14	29-Apr-19	80.00p	800,000	-	-	**800,000**
30-Apr-14	29-Apr-19	87.50p	1,506,669	-	-	**1,506,669**
30-Sep-14	30-Sep-18	125.00p	266,667	-	(266,667)	**-**
30-Sep-14	30-Sep-19	125.00p	266,666	-	-	**266,666**
01-Jul-15	30-Jun-20	200.00p	1,033,334	-	-	**1,033,334**
01-Oct-16	30-Sep-21	95.00p	400,000	-	-	**400,000**
13-Feb-17	12-Feb-22	200.00p	400,000	-	-	**400,000**
17-Mar-17	16-Mar-19	250.00p	200,000	-	-	**200,000**
29-Aug-17	28-Aug-22	130.00p	400,000	-	-	**400,000**
Total			6,217,336	-	(650,667)	**5,566,669**

The number and weighted average exercise prices of share options are as follows.

	2018		2017	
	Weighted average exercise price	**Number of options**	Weighted average exercise price	Number of options
Outstanding at the beginning of the period	**133.01p**	**6,217,336**	123.75p	9,604,000
Lapsed during the period	**179.41p**	**(650,667)**	139.02p	(4,386,664)
Exercised during the period	**-**	**-**	-	-
Issued during the period	**-**	**-**	182.00p	1,000,000
Outstanding at the end of the period	**127.11p**	**5,566,669**	132.58p	6,217,336
Exercisable at the end of the period	**127.12p**	**5,486,669**	133.01p	5,870,670

(b) Warrants

Warrants held by Directors are disclosed in Note 8. The total number of warrants outstanding at the year end are as follows:

Exercise period	Maximum date of exercise	Exercise price	Share warrants held at 01 January 2018	Issued in the period	Lapsed in the period	Exercised in the period	**Share options as at 31 December 2018**
03-Oct-13	02-Oct-18	125.00p	200,000	-	(200,000)	-	**-**
08-Sep-14	07-Sep-19	150.00p	1,120,254	-	-	-	**1,120,254**
03-Apr-15	02-Apr-20	177.50p	1,840,000	-	-	-	**1,840,000**
01-May-15	30-Apr-20	200.00p	535,674	-	-	-	**535,674**
14-May-15	13-May-20	206.25p	168,652	-	-	-	**168,652**
22-Feb-17	21-Feb-21	86.00p	302,325	-	-	-	**302,325**
27-Mar-17	23-Mar-22	150.00p	1,000,000	-	(1,000,000)	-	**-**
26-Apr-17	25-Apr-21	36.00p	722,223	-	-	-	**722,223**
24-May-17	23-May-21	31.00p	838,710	-	-	-	**838,710**
24-May-17	23-May-21	31.00p	22,600,000	-	-	(800,000)	**21,800,000**
13-Jun-17	11-Jun-22	50.00p	500,000	-	(500,000)	-	**-**
26-Apr-18	23-Mar-22	70.00p	-	1,000,000	-	-	**1,000,000**
31-May-18	11-Jun-22	50.00p	-	500,000	-	(50,000)	**450,000**
31-Aug-18	31-Aug-23	100.00p	-	2,617,312	-	-	**2,617,312**
Total			**29,827,838**	**4,117,312**	**(1,700,000)**	**(850,000)**	**31,395,150**

21. Share based payments continued

The number and weighted average exercise prices of share warrants are as follows.

	2018		2017	
	Weighted average exercise price	**Number of warrants**	Weighted average exercise price	Number of warrants
Outstanding at the beginning of the period	**49.64p**	**29,827,838**	168.32p	3,949,887
Lapsed during the period	**133.82p**	**(1,700,000)**	25.00p	(85,307)
Exercised during the period	**91.28p**	**(850,000)**	-	-
Issued during the period	**86.64p**	**4,117,372**	31.51p	25,963,258
Outstanding at the end of the period	**51.44p**	**31,395,210**	49.64p	29,827,838
Exercisable at the end of the period	**51.44p**	**31,395,210**	49.64p	29,827,838

The fair value of services received in return for share options and warrants is measured by reference to the fair value of the share options and warrants granted. This estimate is based upon a Black-Scholes model which is considered most appropriate considering the effects of the vesting conditions, expected exercise period and the payment of dividends by the Group. The inputs into the Black-Scholes model for warrants granted in the year were as follows.

Exercise period (years)	First vesting date	Risk free rate	Exercise price	Volatility of share price	Warrants Vested	Warrants Granted	Expiry	Fair Value
5	26-Apr-18	2.62%	70.0p	87.08%	1,000,000	1,000,000	23-Mar-22	257,831
5	31-May-18	2.62%	50.0p	87.08%	500,000	500,000	11-Jun-22	179,155
5	31-Aug-18	2.62%	100.0p	85.47%	2,617,372	2,617,372	31-Aug-23	743,148
Total						**4,117,372**		**1,180,135**

Volatility was determined with reference to the Company's share price movements over a period equivalent to the expected lives of the warrants retrospectively from the date of issue.

The Group recognised the following share-based payment expense during the period.

Charged to the profit and loss account	**2018**	2017
Expense arising from fair value of share options currently in issue	**49,072**	445,256
Expense arising from fair value of warrants currently in issue	**732,752**	387,180
Expense arising on employee services paid in shares	**2,962,467**	58,500
Expense on settlement of financial liability	**458,333**	-
Total charge to the profit and loss account	**4,202,624**	890,936

Charged to share premium	**2018**	2017
Expense arising from fair value of warrants issued in period	**760,031**	-
Total	**760,031**	-

Notes to the Accounts – Group

Continued - Financials in £

22. Share premium reserve

Company law restricts the use of the share premium reserve of £50,724,177 (2017:£43,259,389), which may only be applied in paying unissued shares of the Company in respect of capitalisation issues and in writing off the expenses of, or the commission paid or discount allowed on, any issue of shares or debentures of the Company.

23. Share option reserve

The share option reserve of £7,198,580 (2017: £5,743,609) arises owing to the provision in respect of IFRS 2 "Share based payments". The increase of £1,454,971 in the share option reserve (2017: £1,485,461) relates to the fair value cost of warrants issued during 2018 as explained in Note 21, and the annual charge for options issued in earlier years, calculated as the cost of each option spread over the number of years before its maturity.

24. Reverse acquisition reserve

The reverse acquisition reserve of £11,038,204 was created on 31 July 2006 when the Company became the legal parent of CareCapital Limited ("CCL") by way of a share exchange agreement. The business combination was regarded as a reverse acquisition under IFRS 3 whereby CCL, the legal subsidiary, is the acquirer and has the power to govern the financial and operating policies of the legal parent so as to obtain benefits from its activities.

25. Loan note conversion reserve

The loan note conversion reserve of £ nil (2017: £5,650,631) was created on 22 February 2017 when the Company made the first drawdown under the convertible loan facility with Bracknor Ltd. and increased in July 2017 under a further facility announced at that time. All loan notes had been converted into ordinary shares by the end of the period.

	2018	2017	Bracknor	Others
Loan notes issued under convertible loan facilities	-	7,600,631	3,491,322	4,109,309
Loan notes converted	-	(1,950,000)	(1,950,000)	-
Loan notes remaining unconverted	-	5,650,631	1,541,322	4,109,309

26. Exchange movement reserve

The foreign exchange movement reserve comprises all foreign currency differences arising from the translation of the financial statements of the foreign operations. The balance increased by £991,530 to £1,451,940 (2017: £460,410)

27. Capital commitments

The Group and its subsidiaries had capital commitments of £1,141,000 (2017: £nil). This was in respect of the building modifications being undertaken at the STFC Daresbury site.

28. Contingent liabilities

The Directors are not aware of any contingent liabilities at the 31 December 2018 (2017: £nil).

29. Related party transactions

The following related party transactions are required to be disclosed in accordance with IAS24.

	2018	2017
A family member of Dr Michael Sinclair, Executive Chairman, was employed by the Group. The remuneration and benefits payable under the contract, excluding Company statutory and other costs, were:	**203,774**	205,975
The Group received services from Berkshire Investment Management Limited, a company controlled by Hans von Celsing, a Group Director	**84,896**	81,883
The balance due to Berkshire Investment Management Limited as at 31 December 2018 was:	**20,348**	41,597

The Group has taken advantage of the exemption available under IAS 24 'Related Party Disclosures' not to disclose details of transactions between Group undertakings which are eliminated on consolidation in the Group Financial Statements. The key management consist entirely of the Directors, whose remuneration is shown in Note 8.

30. Operating lease commitments

Total future minimum rentals payable under non-cancellable operating leases are as follows:

	2018	2017
Land and Buildings		
the next year	**1,392,350**	805,286
years 2 through 5 combined	**3,969,861**	3,317,149
beyond five years	**5,510,296**	-
Plant & Machinery		
the next year	**19,600**	-
years 2 through 5 combined	**15,465**	-
beyond five years	**-**	-

31. Post balance sheet events

In January 2019, the Group raised additional equity of £10.0 million through the subscription of 25,000,000 new ordinary shares by new and existing shareholders. Shortly after, the Group obtained ISO 13485:2016 certification following an audit by independent compliance specialists Lloyd's Register and reflecting the Group's compliance to the highest standards for safety and product performance.

In February 2019, Allenby Capital Limited was appointed as the Group's nominated adviser and joint broker. The Remuneration Committee approved the grant of share options over 4,000,000 new ordinary shares of 25 pence each, at an exercise price of 100 pence per share. Separately, pursuant to the Company's 2018 SAYE Option Plan, the Board has granted options over a total of 1,449,342 new ordinary shares, at a price of 40 pence per share. Following the grant of the Options and the SAYE Options, the Company has options outstanding over 10,616,011 new Ordinary Shares.

In April 2019, Dr Moataz Karmalawy, who previously served as General Manager of the Worldwide Particle Therapy Business for Varian Medical Systems, Inc., was appointed as Chief Commercial Officer and President of the US division.

In May 2019, the Group secured additional financing for a total amount of £12.3 million in the form of a two-year secured debt facility with Credit Suisse AG for £10.0 million and a direct subscription of £2.3 million.

32. Supporting statements of cash flows

	Short term loans	Convertible loans	Total
Balance as at 01 January 2017	543,250	-	543,250
Inflows	9,247,218	7,800,000	17,047,218
Outflows	(543,250)	-	(543,250)
Reclassification as current liabilities	-	(199,369)	(199,369)
Conversion of loan notes	-	(1,950,000)	(1,950,000)
Balance as at 31 December 2017	9,247,218	5,650,631	14,897,849
Balance as at 01 January 2018	9,247,218	5,650,631	14,897,849
Inflows	4,500,000	-	4,500,000
Outflows	(10,247,218)	-	(10,247,218)
Conversion of loan notes	(500,000)	(5,650,631)	(6,150,631)
Balance as at 31 December 2018	**3,000,000**	**-**	**3,000,000**

Company Statement of Financial Position

As at 31 December 2018 - Financials in £

	Notes	2018	2017
Non-current assets			
Intangible assets	C	**15,017,243**	10,367,635
Property, plant and equipment	D	**3,146,338**	297,031
Investment in subsidiaries	E	**8,052,458**	8,051,567
Trade and other receivables	F	**34,050,623**	22,549,929
		60,266,662	41,266,161
Current assets			
Trade and other receivables	F	**1,719,001**	1,693,377
Corporation tax R&D refund	F	**685,764**	2,850,000
Cash and cash equivalents		**897,274**	23,078
Inventories	G	**10,014,086**	7,015,109
		13,316,125	11,581,564
Total assets		**73,582,787**	52,847,725
Current liabilities			
Trade and other payables	H	**(4,847,555)**	(5,597,158)
Borrowings	I	**(3,000,000)**	(8,913,688)
		(7,847,555)	(14,510,846)
Non-current liabilities			
Licence Fee Received	H	**(16,500,000)**	-
		(16,500,000)	-
Total liabilities		**(24,347,555)**	(14,510,846)
Net assets		**49,235,232**	38,336,879
Equity			
Share capital		**42,391,523**	20,233,799
Share premium reserve		**50,724,177**	43,259,389
Share option reserve		**7,198,580**	5,743,609
Loan note conversion reserve		**-**	5,650,631
Accumulated losses		**(51,079,048)**	(36,550,549)
Total equity		**49,235,232**	38,336,879

The Company's loss for the financial year was £13,778,869 (2017: £9,273,427 loss).

These financial statements have been approved and were authorised for issue by the Board of Directors on 27 June 2019.
Signed on behalf of the Board of Directors by

Dr Michael Sinclair
Executive Chairman

Nicolas Serandour
Chief Executive Officer

Registered number: 05564418
The accompanying Notes on pages 96 to 101 form part of the financial statements.

Company Statement of Changes in Equity

For the year ended 31 December 2018 - Financials in £

	Share capital	Share premium reserve	Share options reserve	Loan note conversion reserve	Accumulated losses	Total
Balance as at 01 January 2017	18,116,946	43,117,741	4,258,148	-	(27,277,122)	38,215,713
Loss for the year	-	-	-	-	(9,273,427)	(9,273,427)
Total comprehensive income	-	-	-	-	(9,273,427)	(9,273,427)
Arising on issues of ordinary shares	208,334	41,666	-	-	-	250,000
- acquisition of ADAM S.A.	1,852,932	97,068	-	-	-	1,950,000
Share based payment						
- employee services	55,587	2,913	690,810	-	-	749,310
- acquisition of ADAM S.A.	-	-	161,742	-	-	161,742
- cost of raising equity	-	-	16,877	-	-	16,877
- cost of raising finance	-	-	544,163	-	-	544,163
- other services	-	-	71,869	-	-	71,869
Balance at 31 December 2017	-	-	-	5,650,631	-	5,650,631
Balance as at 31 December 2017 as restated notes	20,233,799	43,259,389	5,743,609	5,650,631	(36,550,549)	38,336,879
Change in accounting policy - IFRS 9	-	-	-	-	(819,633)	(819,633)
Balance as at 01 January 2018	20,233,799	43,259,389	5,743,609	5,650,631	(37,370,182)	37,517,246
Loss for the year	-	-	-	-	(13,778,869)	(13,778,869)
Total comprehensive income	-	-	-	-	(13,778,869)	(13,778,869)
Shares Issued in the period	17,448,866	7,473,151	760,031	-	-	25,682,048
Expenses deducted from share premium	-	(950,135)	-	-	-	(950,135)
Lapsed and cancelled options	-	-	(34,497)	-	34,497	-
Lapsed and cancelled warrants	-	-	(35,506)	-	35,506	-
Conversion of loan notes	4,708,859	941,772	-	(5,650,631)	-	-
Share based payments - share option charge	-	-	49,072	-	-	49,072
Share warrants charge	-	-	715,870	-	-	715,870
Balance as at 31 December 2018	**42,391,523**	**50,724,177**	**7,198,579**	**-**	**(51,079,048)**	**49,235,231**

The accompanying Notes on pages 96 to 101 form part of the financial statements.

Notes to the Accounts – Company

As at 31 December 2018 - Financials in £

A. Principal accounting policies

(i) Company
The separate financial statements of the Company are presented as required by the Companies Act 2006 and in accordance with FRS 101 United Kingdom generally accepted accounting practice.

In these financial statements, the company has applied the exemptions available under FRS 101 in respect of the following disclosures:
- Disclosures regarding revenue;
- Disclosures regarding the cash flow statement;
- Disclosures in respect of transactions with wholly owned subsidiaries;
- Disclosures in respect of capital management;
- The effects of new but not yet effective IFRSs; and
- Disclosures in respect of the compensation of Key Management Personnel

(ii) Investment in subsidiaries
Investments in subsidiaries are carried in the Company's statement of financial position at cost less, where appropriate, accumulated impairment.

The Company has adopted the requirements of IFRS 9 in the period. In doing so the Directors have estimated expected credit losses on loans to subsidiaries based on the underlying activity of the entities, their respective asset case along with potential recovery scenarios for each subsidiary. A provision for expected credit losses has been recorded of £1,287,931, of which £819,633 was reported in the statement of changes equity arising from the impact on the opening balance sheet. The calculation for expected credit losses involves a number of assumptions which are consistent with the business plan and the valuation of the Group in the market. Should the actual Group performance vary from business plan and technical finalisation is not completed in the expected timescale or there is a fall in market value of the group, this could have a significant impact on the carrying value of the intercompany debtors in following periods.

B. Company results

As permitted by Section 408 of the Companies Act 2006, the income statement for the Parent Company is not presented as part of these financial statements.

The Company's loss for the financial year was £13,982,228 (2017: £9,273,427 loss).

The audit fee for the Company is set out in Note 3 of the Group's financial statements.

C. Intangible Assets

Development Costs

At 01 January 2017	6,961,734
Additions	3,405,901
At 31 December 2017	**10,367,635**

At 01 January 2018	**10,367,635**
Additions	**4,649,608**
At 31 December 2018	**15,017,243**

In accordance with IAS 38, £4,649,608 (2017: £3,405,901) of costs relating to the development of the LIGHT proton therapy machine were capitalised during the year.

D. Property, plant and equipment

	Leasehold property	Computer hardware and software	Fixtures, fittings and equipment	Total
2017				
Cost				
At 01 January 2017	177,251	115,479	115,213	407,943
Additions	-	12,791	6,126	18,917
Disposals	-	(1,999)	-	(1,999)
At 31 December 2017	**177,251**	**126,271**	**121,339**	**424,861**
Depreciation				
At 01 January 2017	-	54,619	14,662	69,281
Charge for the year	-	37,082	23,466	60,548
Disposals	-	(1,999)	-	(1,999)
At 31 December 2017	**-**	**89,702**	**38,128**	**127,830**
Net book value				
At 01 January 2017	177,251	60,860	100,551	338,662
At 31 December 2017	**177,251**	**36,569**	**83,211**	**297,031**
2018				
Cost				
At 01 January 2018	177,251	126,271	121,339	424,861
Additions	2,884,874	57,296	985	2,943,155
Disposals	-	-	-	-
At 31 December 2018	**3,062,125**	**183,567**	**122,324**	**3,368,016**
Depreciation				
At 01 January 2018	-	89,702	38,128	127,830
Charge for the year	27,932	41,651	24,265	93,848
Disposals	-	-	-	-
At 31 December 2018	**27,932**	**131,353**	**62,393**	**221,678**
Net book value				
At 01 January 2018	177,251	36,569	83,211	297,031
At 31 December 2018	**3,034,193**	**52,214**	**59,931**	**3,146,338**

Notes to the Accounts – Company

Continued - Financials in £

E. Investment in subsidiaries

	2017
At 01 January 2017	8,051,567
At 31 December 2017	**8,051,567**

	2018
At 01 January 2018	**8,051,567**
Additions	**891**
At 31 December 2018	**8,052,458**

The Company owned the following principal subsidiary companies as at 31 December 2018:

Subsidiary Company		Country of Incorporation	Share class	% Holding
ADAM S.A.		Switzerland	Ordinary	100%
Advanced Oncotherapy Resources Ltd	[1]	United Kingdom	Ordinary	100%
APTS Harley Street Ltd	[1]	United Kingdom	Ordinary	100%
AVO (China) Ltd	[1]	United Kingdom	Ordinary	100%
AVO Proton Therapy Services Ltd	[1]	United Kingdom	Ordinary	100%
CareCapital (Southampton) Ltd	[1 2]	United Kingdom	Ordinary	100%
CareCapital Ltd		United Kingdom	Ordinary	100%
Oncotherapy UK Ltd	[1]	United Kingdom	Ordinary	100%
The London Proton Therapy Centre Ltd	[1]	United Kingdom	Ordinary	100%
The Women's Cancer Centre Ltd	[2]	United Kingdom	Ordinary	100%
AVO Americas Inc		USA	Ordinary	100%
CareCapital Gesundheitsimmobilien GmbH	[1 2]	Germany	Ordinary	90%
CareCapital Gesundheitsimmobilien Vervaltungs GmbH	[1 2]	Germany	Ordinary	90%
Gesundheitszentrum Adlershof 2 Minderheitsbeteiligungs GmbH	[1 2]	Germany	Ordinary	100%
Gesundheitszentrum Königs Wusterhausen 2 GmbH and Co. KG	[1 2]	Germany	Ordinary	100%
Advanced Oncotherapy B.V.	[3]	The Netherlands	Ordinary	100%

Notes
[1] Dormant [2] Indirectly held [3] Registration completed in February 2019

F. Trade and other receivables

	2018	2017
Due greater than 1 year		
Property rent deposits	**501,870**	500,000
Property decommissioning deposits	**350,000**	-
Amounts owed by subsidiary undertakings	**33,198,753**	22,049,929
Total	**34,050,623**	22,549,929

In accordance with IFRS 9, the Company has considered the impairment of loans due from its primary subsidiary company and has made the following provisions in 2018:

Loans as at 31 December 2017	819,633
Increase in loans during 2018	468,298

F. Trade and other receivables continued

	2018	2017
Current		
VAT recoverable	**107,868**	44,063
Advance payments to suppliers	**576,772**	1,327,896
Property rent deposits	**141,819**	-
Other debtors	**19,794**	-
Prepayments	**872,748**	321,418
	1,719,001	1,693,377
Corporation Tax	**685,764**	2,850,000
Total	**2,404,765**	4,543,377

G. Inventories

	2018	2017
Inventories		
Work in progress - LIGHT	**10,014,086**	7,015,109
Total	**10,014,086**	7,015,109

All of the above items of Inventory have been valued at cost less an impairment provision considered necessary by the Directors. £1,908,925 (2017: £ nil) relating to the LIGHT work in progress has been expensed to the income statement.

Costs included in Inventory are for finished components of the LIGHT machine that will be sold as part of the first LIGHT installation.

H. Trade and other payables

	2018	2017
Non current		
Licence Fee Received	**16,500,000**	-
Total	**16,500,000**	-
Current		
Trade payables	**2,786,029**	3,525,780
Social security and other taxes	**80,130**	168,873
Other creditors	**43,745**	181,520
Accruals and deferred income	**1,937,651**	1,720,985
Total	**4,847,555**	5,597,158

I. Borrowings

	2018	2017
Current		
Secured loans	**3,000,000**	7,295,000
Unsecured loans	**-**	1,618,688
Total	**3,000,000**	8,913,688

The secured loan in 2018 is secured against an agreement to lease the Harley Street site.

The secured loans in 2017 were fully repaid in May 2018. Of the unsecured loans in 2017, £500,000 was converted into equity in February 2018, the remaining loans were repaid in full by the end of February 2018.

Notes to the Accounts – Company

Continued - Financials in £

J. Related party transactions

The following related party transactions are required to be disclosed in accordance with IAS24.

	2018	2017
A family member of Dr Michael Sinclair, Executive Chairman, was employed by the Group. The remuneration and benefits payable under the contract, excluding Company statutory and other costs, were:	**203,774**	205,975
The Company received services from Berkshire Investment Management Limited, a company controlled by Hans von Celsing, a Group Director	**84,896**	81,883
The balance due to Berkshire Investment Management Limited as at 31 December 2018 was:	**20,348**	41,597

The Company has taken advantage of the exemption available under IAS 24 'Related Party Disclosures' not to disclose details of transactions between Group undertakings which are eliminated on consolidation in the Group financial statements.

K. Financial instruments

The Company's activities expose it primarily to the financial risks of changes in foreign currency exchange rates and interest rates.

Management of risks
Credit risk is managed as follows:

Cash at bank is held only with reputable banks with high quality external credit ratings. The Company's financial assets and liabilities are classified as follows:

	Amortised cost	
	2018	2017
Cash and cash equivalents	**897,274**	23,078
Borrowings	**(3,000,000)**	(8,913,688)
Trade and other payables	**(4,847,555)**	(5,597,158)
Total	**(6,950,281)**	(14,487,768)

	Fair value	
	2018	2017
Cash and cash equivalents	**897,274**	23,078
Borrowings	**(3,000,000)**	(8,913,688)
Trade and other payables	**(4,847,555)**	(5,597,158)
Total	**(6,950,281)**	(14,487,768)

Regarding liquidity risk, the Company will, in the future, need to raise further equity or debt funds to fulfil its objectives and/or finance working capital requirements through future stages of development.

L. Operating lease commitments

Total future minimum rentals payable under non-cancellable operating leases are as follows:

	2018	2017
Land and Buildings		
the next year	**709,270**	135,928
years 2 through 5 combined	**2,457,736**	472,374
beyond five years	**5,510,296**	-
Plant & Machinery		
the next year	**19,600**	-
years 2 through 5 combined	**15,465**	-
beyond five years	**-**	-

Notice of Annual General Meeting

NOTICE IS HEREBY GIVEN that the Annual General Meeting of Advanced Oncotherapy plc, registered in England and Wales with the registered number 05564418 (the 'Company',) will be held at 1 Wimpole Street - home of The Royal Society of Medicine, 1 Wimpole Street, London W1G 0AE on Thursday, 25 July 2019 at 2.00pm for the following purposes:

ORDINARY RESOLUTIONS

To consider, and if thought fit, to pass the following resolutions which will be proposed as Ordinary Resolutions:

1. To receive the audited financial statements and the Auditor's and Directors' reports for the year ended 31 December 2018.
2. To re-appoint Michael Bradfield as a Director of the Company.
3. To appoint Chunlin Han as a Director of the Company.
4. To re-appoint Hans von Celsing as a Director of the Company.
5. To appoint Dr. Yuelong Huang as a Director of the Company.
6. To re-appoint Prof Steve Myers as a Director of the Company.
7. To re-appoint Dr Nick Plowman as a Director of the Company.
8. To re-appoint Nicolas Serandour as a Director of the Company.
9. To re-appoint Dr Michael Sinclair as a Director of the Company.
10. To appoint Peter Sjöstrand as a Director of the Company.
11. To appoint Prof. Gabriel Urwitz as a Director of the Company.
12. To re-appoint Dr Enrico Vanni as a Director of the Company.
13. To appoint Renhua Zhang as a Director of the Company.
14. To re-appoint RPG Crouch Chapman LLP as Auditors of the Company to hold office until the conclusion of the next AGM at which accounts are laid before the Company.
15. To authorise the Directors to determine the remuneration of the Auditors.
16. THAT the Directors be and are hereby generally and unconditionally authorised for the purposes of section 551 of the Companies Act 2006 ("the Act"), to exercise all the powers of the Company to allot shares in the Company and/ or to grant rights to subscribe for, or to convert any securities into shares in the Company, and/or the grant of rights to subscribe for or to convert any securities into Ordinary Shares up to a maximum aggregate nominal amount of £15,032,144.50 (the equivalent of up to 60,128,578 Ordinary Shares), this authority to expire on the earlier of fifteen months from the date of the passing of this resolution or the conclusion of the next AGM of the Company to be held in 2020 unless previously renewed, varied or revoked by the Company in general meeting, save that the Company may before such expiry make any offer or agreement which would or might require shares in the Company to be allotted and/or rights to subscribe for or to convert any securities into shares in the Company to be granted after such expiry and the Directors may allot shares in the Company, or grant rights to subscribe for or to convert any securities into shares in the Company, in pursuance of any such offer or agreement as if the authority conferred hereby had not expired.

SPECIAL RESOLUTION

17. THAT, subject to the passing of Resolution 16 above, in substitution for all previous powers to the extent unused, the Directors be and are hereby unconditionally empowered pursuant to sections 570 and 571 of the Act to allot equity securities (as defined in section 560 of the Act) pursuant to the authority granted to the Directors pursuant to Resolution 16 above as if section 561 of the Act did not apply to any such allotment, provided that this power shall be limited to:

    a) the allotment of equity securities in connection with a rights issue, open offer or equivalent offer in favour of the holders of Ordinary Shares and such other equity securities of the Company as the Directors may determine in which such holders are offered the right to participate in proportion (as nearly as may be) to their respective holdings of such equity securities or in accordance with the rights attached thereto but subject to such exclusions or other arrangements as the Directors may consider necessary or expedient in connection with shares representing fractional entitlements or on account of either legal or practical problems arising in connection with the laws of any territory, or of the requirements of any recognised regulatory body or stock exchange in any territory;

    b) other than pursuant to sub-paragraph 17(a) above, the allotment of equity securities up to an aggregate nominal amount of £15,032,144.50 (the equivalent of up to 60,128,578 Ordinary Shares). This power shall expire on the earlier of fifteen months from the date of passing of this Resolution and upon the conclusion of the next AGM of the Company to be held in 2020 unless previously renewed, varied or revoked by the Company in general meeting, save that the Company may before such expiry make any offer or agreement which would or might require equity securities to be allotted after such expiry and the Directors may allot equity securities in pursuance of any such offer or agreement as if the power conferred hereby had not expired.

By order of the Board

Dr Michael Sinclair
Executive Chairman

Registered Office: Level 17, Dashwood House,
69 Old Broad Street, London EC2M 1QS
27 June 2019

NOTES

1. A member entitled to attend, speak and vote may appoint a proxy or proxies to attend, speak and vote instead of him or her. A proxy need not to be member of the Company. Please indicate on your form of proxy how you wish your votes to be cast in respect of the resolutions to be proposed at the said meeting. If you do not indicate how you wish your proxy to use your votes, the proxy will exercise his discretion both as to how he votes and as to whether or not he abstains from voting. Your proxy will have the authority to vote at his discretion on any amendment or other motion proposed at the meeting, including any motion to adjourn the meeting.
2. Form of Proxy - Advanced Oncotherapy plc is committed to

reducing paper and improving efficiency in its shareholder communications. From 2020 we will no longer be sending paper proxy cards to shareholders unless specifically asked to do so. We will provide advice on how to request a paper proxy at the appropriate time.

3. Please note any member may vote their shares electronically at www.signalshares.com.

4. If you prefer to appoint some other person or persons as your proxy, strike out the words "the Chairman of the Meeting, or" and insert in the blank space the name or names preferred and initial the alteration. A proxy need not be a member of the Company. Completion of a form of proxy will not preclude a member from attending and voting in person.

5. In the case of joint holders, the signature of the holder whose name stands first in the relevant register of members will suffice as the vote of such holder and shall be accepted to the exclusion of the votes of the other joint holders. The names of all joint holders should, however, be shown.

6. If a member is a corporation, the form must be executed either under its common seal or under the hand of an officer or agent duly authorised in writing. In the case of an individual the proxy must be signed by the appointor or his agent, duly authorised in writing. The form of proxy has been sent to you by post, it may be returned by post or courier or by hand to the Company's Registrars, Link Asset Services, PXS, 34 Beckenham Road, Beckenham, Kent BR3 4TU. CREST members should use the CREST electronic proxy appointment service and refer to Note 6 below in relation to the submission of a proxy appointment via CREST.

   In each case the proxy appointment must be received not less than 48 hours before the time for the holding of the meeting or adjourned meeting together (except in the case of appointments made electronically) with any authority (or a notarially certified copy of such authority) under which it is signed.

7. CREST members who wish to appoint a proxy or proxies through the CREST electronic proxy appointment service may do so for the AGM to be held on the above date and any adjournment(s) thereof by using the procedures described in the CREST manual. CREST personal members or other CREST sponsored members who have appointed a voting service provider(s), will be able to take the appropriate action on their behalf.

   In order for a proxy appointment or instruction made using the CREST service to be valid, the appropriate CREST message (a "CREST proxy instruction") must be properly authenticated in accordance with Euroclear UK and Ireland Limited's specifications and must contain the information required for such instructions as described in the CREST manual. The message, regardless of whether it constitutes the appointment of a proxy or an amendment to the instruction given to a previously appointed proxy must, in order to be valid, be transmitted so as to be received by the Company's agent (ID: RA10) by the latest time(s) for receipt of proxy appointments specified in the notice of meeting. For this purpose, the time of receipt will be taken to be the time (as determined by the timestamp applied to the message by the CREST applications host) from which the Company's agent is able to retrieve the message by enquiry to CREST in the manner prescribed by CREST. After this time any change of instructions to proxies appointed through CREST should be communicated to the appointee through other means.

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

   The Company may treat as invalid a CREST proxy instruction in the circumstances set out in regulation 35(5) (a) of the Uncertificated Securities Regulations 2001.

   Pursuant to regulation 41 (1) of the Uncertificated Securities Regulations 2001 (2001 No. 3755) the Company has specified that only those members registered on the register of members of the Company at close of business on 23 July 2019 shall be entitled to attend and vote at the AGM in respect of the number of Ordinary Shares registered in their name at the time. Changes to the register of members after close of business on 23 July 2019 shall be disregarded in determining the rights of any person to attend and vote at the AGM.

8. Under section 319A of the Act, the Company must answer any question relating to the business being dealt with at the meeting put by a member attending the meeting unless:

   (a) answering the question would interfere unduly with the preparation for the meeting or involve the disclosure of confidential information;
   (b) the answer has already been given on a website in the form of an answer to a question; or
   (c) it is undesirable in the interests of the Company or the good order of the meeting that the question be answered.

9. The following documents will be available for inspection at the Company's registered office during normal business hours on any weekday (Saturdays, Sundays and English public holidays excluded) from the date of this notice of the Annual General Meeting until the date of the Annual General Meeting and at the place of the meeting at least 15 minutes prior to the commencement of the Annual General Meeting until its conclusion:

   (a) copies of the Directors' contracts of service;

   (b) copies of the Non-Executive Directors' letters of appointment;

   (c) a copy of the Articles of Association of the Company is available on the Investor Relations section of the Advanced Oncotherapy website (www.avoplc.com) on the Company Reports page.

Explanatory Notes to the Notice of Annual General Meeting

This year, Resolutions are proposed at the Annual General Meeting and the purpose of each of the Resolutions is as follows:

ORDINARY BUSINESS

Resolution 1: The Report and Accounts

The Directors will present their report and the audited financial statements to 31 December 2018, together with the auditors' report therein.

Resolutions 2-13: Appointment of new Directors and re-appointment of retiring Directors

The Articles of Association of the Company stipulate that any Director shall only hold office until the conclusion of the next annual general meeting following the date of his appointment. Furthermore, the articles require that one third of the Directors retire at each Annual General Meeting. Corporate Governance guidance recommends that each of the Directors retire and offer themselves for re-appointment. Biographical details relating to each of the Directors can be found on the Group's website: www.avoplc.com

Resolution 14: Appointment of Auditors

The Company is required to appoint auditors at each Annual General Meeting at which accounts are laid before shareholders, to hold office until the next such meeting. This Resolution proposes RPG Crouch Chapman LLP be re-appointed as auditors for the current year.

Resolution 15: Auditors' remuneration

This Resolution authorises the Directors to determine the auditors' remuneration.

SPECIAL BUSINESS

Resolution 16: Authority to allot shares

Section 549 of the Companies Act 2006 stipulates that Directors cannot allot shares or rights to subscribe for shares in the Company (other than the shares allotted in accordance with an employee share scheme) unless they are authorised to do so by the shareholders in general meeting. The Directors' general authority to allot shares was granted at General Meetings held on 21 January 2019 will expire at the conclusion of this AGM. Resolution 16 seeks a new general authority from shareholders for the Directors to allot Ordinary Shares or to grant rights to subscribe for and/or to convert any securities into Ordinary Shares up to an aggregate nominal value of £15,032,144.50. The Directors consider it desirable that the specified number of Ordinary Shares and/or rights to subscribe for and/or to convert any securities into Ordinary Shares be increased by 20% so that they can satisfy existing warrants and options and allow headroom to more readily take advantage of possible equity raising opportunities. Unless renewed, revoked, varied or extended, this authority will expire at the conclusion of the next AGM of the Company to be held in 2020 or fifteen months from the date of the passing of the resolution, whichever is the earlier.

SPECIAL RESOLUTION

Resolution 17: Disapplication of pre-emption rights

If the Directors wish to allot any Ordinary Shares for cash in accordance with the authority proposed in Resolution 16, the Companies Act 2006 requires that new Ordinary Shares must generally be offered first to shareholders in proportion to their existing holdings. These are the pre-emption rights of shareholders. In certain circumstances, it may be in the interest of the Company for the Directors to be able to allot some shares for cash without having to offer them first to existing shareholders. In line with common practice, Resolution 16 therefore seeks authority to empower the Directors to allot equity securities for cash other than in accordance with the statutory pre-emption rights, in connection with a rights issue and other pre-emptive offers and otherwise up to a maximum nominal amount of £15,032,144.50. In addition, there are legal, regulatory and practical reasons why it may not always be possible to issue new shares under a rights issue to some shareholders, particularly those residents overseas. To cater for this, this Resolution also permits the Directors to make appropriate exclusions or arrangements to deal with such difficulties. Unless renewed, revoked, varied or extended, this authority will expire at the conclusion of the next Annual General Meeting of the Company to be held in 2020 or fifteen months from the date of the passing of the resolution, whichever is the earlier.

Company Information

DIRECTORS

Mr. Michael Bradfield [*†]	*Non-Executive Director*
Mr. Hans von Celsing [*†]	*Non-Executive Director*
Prof Chris Nutting [>]	*Non-Executive Director*
Mr. Chunlin Han	*Non-Executive Director*
Dr Euan Thomson [>]	*Non-Executive Director*
Dr. Yuelong Huang	*Non-Executive Director*
Prof. Steve Myers	*Executive Chairman of ADAM*
Dr. Nick Plowman	*Non-Executive Director*
Mr. Nicolas Serandour	*Chief Executive Officer*
Dr. Michael Sinclair	*Executive Chairman*
Mr. Peter Sjöstrand	*Non-Executive Director*
Prof. Gabriel Urwitz	*Non-Executive Director*
Dr. Enrico Vanni [*†]	*Non-Executive Director*
Mrs. Renhua Zhang	*Non-Executive Director*
Mr. Sanjeev Pandya [>]	*EVP, Global Business Development*

[*] Member of the Audit Committee

[†] Member of the Remuneration Committee

[>] Stepped down from the Board on 2 July 2018

COMPANY SECRETARY

Celia Whitten, FCIS

On 19 May 2019, Celia Whitten stepped down as Company secretary and was replaced by Henry Clarke.

REGISTERED OFFICE

Level 17, Dashwood House
69 Old Broad Street
London, EC2M 1QS

TRADING AND CORRESPONDENCE ADDRESS

Third Floor, 4 Tenterden Street
London, W1S 1TE

REGISTERED NUMBER

05564418 (England and Wales)

WEBSITE

This annual report and other information about Advanced Oncotherapy plc, including share price information and details of results announcements, are available at **www.avoplc.com**

AUDITORS

RPG Crouch Chapman LLP
62 Wilson Street
London, EC2A 2BU

NOMINATED ADVISER AND JOINT BROKER

Allenby Capital Limited
5th Floor, 5 St Helen's Place
London, EC3A 6AB

JOINT BROKER

Stifel Nicolaus Europe Limited
150 Cheapside
London, EC2V 6ET

SOLICITORS TO THE COMPANY

Faegre Baker Daniels LLP
7 Pilgrim Street
London, EC4V 6LB

David Conway and Co
1 Great Cumberland Place
London, W1H 7AL

Dechert LLP
160 Queen Victoria St
London, EC4V 4QQ

PUBLIC RELATIONS

Walbrook PR Limited
4 Lombard Street
London, EC3V 9HD

REGISTRARS

Link Asset Services
The Registry
34 Beckenham Road
Beckenham, BR3 4TU

Annual report 2018

Powerful technology to treat cancer
with pinpoint precision

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ONCOTHERAPY