

Building resilience

Trustees' report and accounts for
The Dunhill Medical Trust
2020/21



Remarkable research
for healthy ageing
THE DUNHILL MEDICAL TRUST



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“I have been greatly supported by the Dunhill Medical Trust. They have reassured me that they will continue to do so during this pandemic.”

Hamez Gacateri Research Training Fellow, University of Oxford

Reference and administrative information

The Dunhill Medical Trust is a charitable company limited by guarantee registered in England
Company Number 07472301 Charity Number 1140372

Trustees

Mr Mike Bellamy
Professor Bernard Conway
Professor Deborah Dunn-Walters
Ms Claire Keatinge (*resigned June 2020*)
Professor Thomas B L Kirkwood CBE
Mr James Lorigan
Mr Eren Osman (*appointed December 2020*)
Professor James McEwen (*Chair to June 2020, retired*)
Professor Alison Petch OBE (*Chair from June 2020*)
Professor Stuart Parker
Mr John A Ransford CBE (*retired March 2021*)
Mr Keith Shepherd
Mr Dominic Jones (*appointed December 2020*)
Professor Carmel Hughes (*appointed June 2021*)

Chief Executive Officer

Ms Susan Kay BA(Hons) MSc ACIB FRSA

Registered Office

5th Floor, 6 New Bridge Street
London EC4V 6AB

Auditors

Saffery Champness LLP
London EC4V 4BE

Accountants

Kingston Smith LLP
London EC1M 7AD

Solicitors

Veale Wasbrough Vizards LLP
London EC4A 1AD

Bankers

C Hoare & Co
London EC4P 4DQ

Investment Advisors

Cambridge Associates
London SW1E 5JL

Investment Managers

Artemis Fund Managers Ltd
London SW1A 1LD

M&G Securities Ltd
London EC4R 0HH

Artisan Partners
London SW1A 1HA

Northern Trust Investment Fund Plc
Dublin D02 R156 (*from March 2021*)

BlackRock Investment Management (UK) Limited
London EC2N 2DL

Silchester International Investors Ltd
London W1J 6TL

The Charities Property Fund
London W1G 0JD

Somerset Capital Management LLP
London SW1W 9SA (*to August 2020*)

Colchester Global Investors Ltd
London W1S 3PR

Stewart Investors (First Sentier Investors (UK) IM Limited)
London EC2M 7EB (*from August 2020*)

Findlay Park Partners LLP
London W1K 2BU

Troy Asset Management Ltd
London W1K 4BP

Chair's statement

It is a relief, given the maelstrom of the past year, to be writing this contribution to our Annual Report. But it is very much more than that for, despite the inevitable challenges this period has brought, the Trust has a great deal to celebrate. In the course of the year we have launched both our new strategic framework and our new-style grants programme, underpinned by a fresh new look for the Trust in the form of a redesigned website and accompanying logo, while at the same time, responding to the challenges faced by our existing award-holders in innovative ways to support their needs. This has generated important lessons which we plan to continue to embed for the future, not least of which are the need to be responsive; the need for a personal approach; and the need to minimise bureaucracy.

None of this would have been possible without the flexibility, commitment and resilience of both our staff and those whom we fund. Early career researchers for whom we could assure financial support in the absence of the availability of furlough were supported to volunteer for the 'COVID effort', ranging from working in the COVID testing programme to helping to develop the safety 'anti-spatter' guidelines for dentists. Our community-award holders excelled in developing imaginative ways to provide support for isolated older people and we were pleased to offer them the flexibility they needed to do so. Meanwhile our

staff adjusted seamlessly to working from home and learnt the new language of Zoom; indeed for our newest team member, Dr Sanjay Thakrar, Head of Research Policy and Awards, and for Gemma Dasant, our Graduate Intern, their home base is virtually the only office they have known.

We have of course been monitoring the impact of the pandemic on our finances particularly carefully over the past year. Fortunately, we have been able to re-affirm our commitment to supporting our planned grants programme for the five-year plan period. Our confidence in doing so has been enhanced by the final settlement of the sale of our land in Sussex, a lengthy saga with an eventual positive outcome. I must commend our CEO, Susan Kay, for surviving this marathon.

You will find full details elsewhere in this report of the range of exciting work we have been able to fund through our established grants programmes. Outwith these programmes, we have been able to support a number of interesting pieces of work this year which will contribute important learning and context as we make the first awards under our new themed research programme in the coming year. In tune with one of our original charitable purposes, this first theme will focus on homes and living environments for older people. The Commission on the Role of Housing in the Future of Care and Support being led by SCIE (Social Care Institute for Excellence) is showing that there is still much confusion and indeed

ignorance around the range of models of housing with support for older people. This is a particular regret given the positive impact of living in retirement and extra care housing communities during the pandemic revealed in the RE-COV project led by St Monica's Trust and which we were pleased to support. In parallel, we are funding the Housing LIN (Learning and Improvement Network) to convene the Technology for an Ageing Population Panel for Innovation (TAPPI) and hope that, together, these initiatives can offer notable reference points for policy makers and commissioners alike. A significant feature of our new research grants programme aims to address the desire to find ways to help academic and community partners to work together to deliver practical impact and we hope to build on the learning from this in our future programmes and indeed to share the experience more widely.

I cannot conclude this contribution without paying tribute to two long-standing Trustees who have come to the end of their terms of office. Professor Jim McEwen had been involved with the Trust for nearly fifteen years, contributing initially as an expert adviser, then as a member of the Grants and Research Committee, before being appointed to the Board on which he served his last three years as Chair. Jim had a unique style of bonhomie and engagement and steered the Trust in effortless style; his is a hard act to follow! An equal loss is John Ransford, an inimitable Chair of the Investment Committee and the inspiration behind our flagship MEAAP (Mid and East Antrim Agewell Partnership)

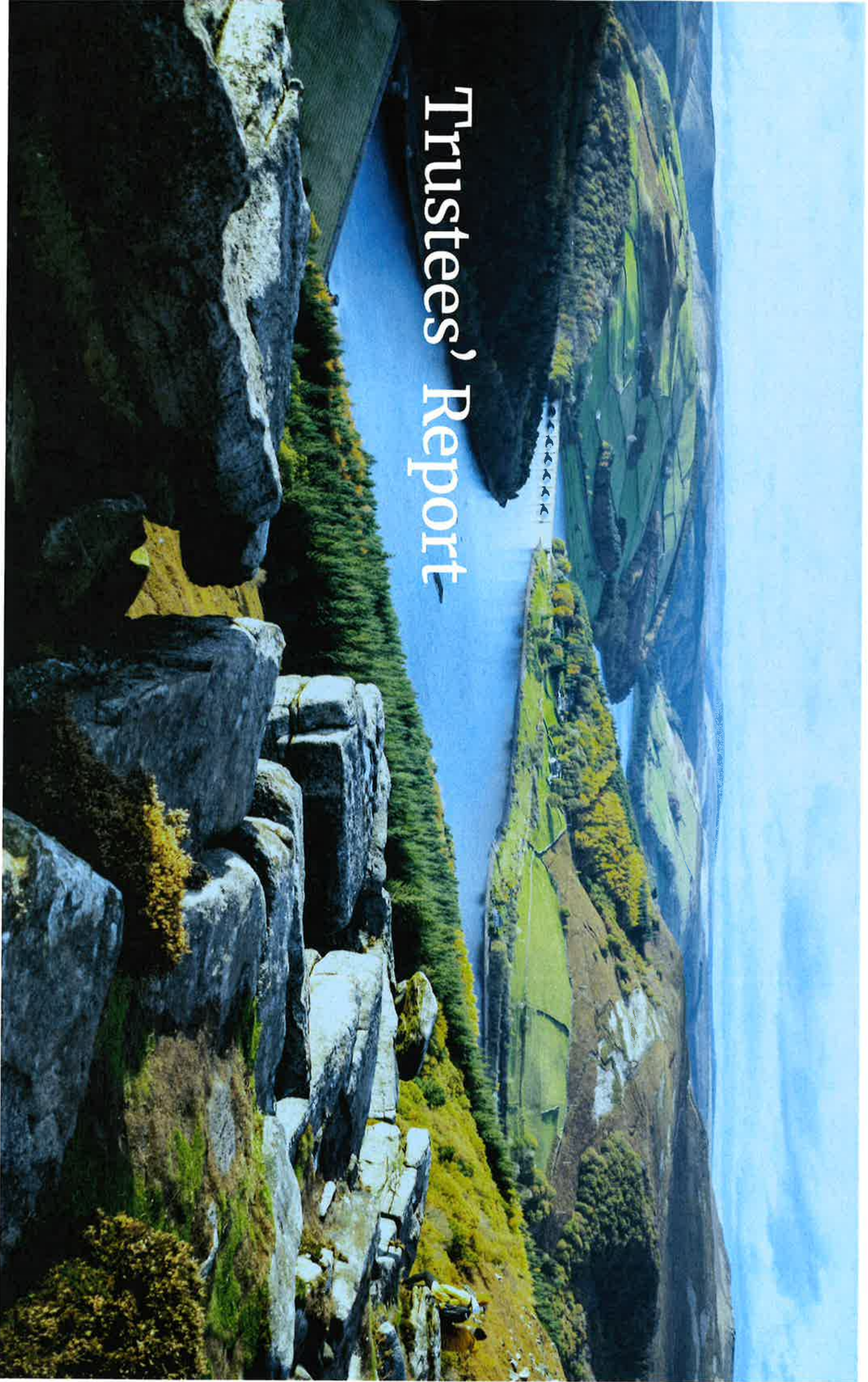
project. We send them both on their way to their next ventures with all our very best wishes.

Finally, on a personal note, my first year as Chair has been entirely virtual. I would like to thank all the staff and my fellow Trustees and Committee members for making what could have been a daunting experience a very enjoyable year. As we hopefully look forward to a somewhat different year, I am delighted to report that the Trust is in good heart.



Professor Alison Petch OBE, Chair

Trustees' Report



The financial statements have been prepared in accordance with the accounting policies set out in Note 1 to the accounts and comply with the charity's Memorandum and Articles of Association, the Companies Act 2006 and the Statement of Recommended Practice (SORP): Accounting and Reporting by Charities. Advantage has been taken of the exemptions available to small companies in the preparation of this report.

This report is a Directors' Report as required by s417 of the Companies Act 2006.

1. Objectives and activities for the public benefit

Under the terms of the governing document, the charitable objects of the Dunhill Medical Trust are:

- the furtherance of medical knowledge and research and the publication of the useful results thereof and the provision of medical care and facilities in such manner as the Trustees shall from time to time in their absolute discretion think fit; and
- research into the care of older people and the publication of the useful results thereof and the provision of accommodation and care for older people.

The Trustees confirm that they have referred to the Charity Commission's guidance on public benefit when reviewing the Trust's aims and objectives in setting grant-making policy and in

planning how future activities will contribute to the delivery of the aims and objectives they have set.

2. Grant-making policy

The main beneficiaries of the Trust's grant-making programmes are researchers in universities, research organisations and community-led charitable and other not-for-profit organisations. The focus on understanding the mechanisms of age-related conditions and disease and improving the health and well-being of older people reflects the ongoing demographic changes towards increased life expectancy and the increasing proportion of older people in the population.

The main method by which the Trust invites grant applications is via its website at dunhillmedical.org.uk, on which its Grant-making Policy, Research Strategy, assessment procedures and help in applying for all its funding schemes and initiatives may be found, together with the Trust's latest annual report and details of grants awarded.

The Trust's grant-making programmes are subject to regular review both on an on-going basis by the management team after completion of each award round and formally at an annual meeting of the grant-making committees and Board members to assess their effectiveness and to help inform future grant-making strategy. The process of award for the Trust's research grant

schemes is accredited by the Association of Medical Research Charities (AMRC) and re-accreditation takes place every five years. The Trust attained successful re-accreditation during 2020.

The Trust is also keen to encourage rigorous independent evaluation of all the community-based project developments and initiatives it supports to ensure that the best possible use is made of the charitable funds at the Trustees' disposal. Plans for sustainability of projects seeking support and the financial viability of applicant organisations are important elements in the assessment of applications received from such organisations.

3. Achievements and performance

2020/21 was intended to be a transition year for the Trust as it prepared to adopt its new strategic framework for the period 2020-25. As part of that, it intended to make only two main calls for applications during the year. But the challenges arising from the COVID-19 pandemic meant that the 12 months from March 2020 was a year like no other for everyone and meant plans had to be revised and adapted. When the Board met in March 2020, it was becoming clear that the main recipients of its grants, university-based researchers, would shortly be unable to access their offices and laboratories, while community award-holders would be substantially challenged in needing to provide additional services to substantial numbers of vulnerable older people. The

executive moved swiftly to contact all award-holders personally, to offer support, reassurance, and access to additional funding. There was already a substantial number of applications in the pipeline, which the team ensured were properly considered and **six new Research Project Grant awards**, financial support for four institutions to enable them to offer a total of **21 PhD studentships** and **one fully-funded Research Training Fellowship** were made as planned, in June 2020. However, given the emerging situation, the decision was taken not to invite new proposals. The tranche of funds earmarked for the second of the year's planned calls for research proposals was diverted to the support of existing award-holders and mitigating the twin risks of existing research investments being wasted and to protect, as far as possible, the investment in capacity for early career researchers to enable them to stay in research. By the year end, the Board had approved **27 financial extensions for existing award-holders**. Early career researchers who could not be furloughed were reassured of financial support and encouraged to volunteer to support the COVID effort.

On the topic of supporting research careers, a key plank of the Trust's strategic framework, the **partnership with the British Geriatrics Society** made its second award of an initial three-year commitment to co-fund three **Doctoral Training Fellowships** to support front-line health professionals with an interest in developing a research career. Both partners are planning to renew this excellent initiative.

In addition to providing this extensive support, the staff team, by then all working from home, started to prepare for **the launch of the new strategic framework** and did so in the autumn of 2020, as originally planned. In addition to completely **re-developing and launching a new website much better able to showcase grant-holders' work**, together with an up-to-date **new design treatment and logo** which describes the Trust's mission and objectives much more clearly, a number of exciting new collaborative initiatives were negotiated and approved in support of the new plans. These included support for the **Social Care Institute for Excellence (SCIE) to convene a Commission on the Role of Housing in the Future of Care and Support** and the **Housing Learning and Improvement Network (LIN)** to convene the **Technology for an Ageing Population Panel for Innovation (TAPPI)** to develop and publish a set of principles which will showcase how best to achieve transformational change in the delivery of technology-enabled care. The Board and executive team are delighted that a number of experienced and eminent individuals have offered their time and expertise in chairing these initiatives. The Commission published its initial discussion paper in March and plans to publish its final report in autumn 2021, when the TAPPI panel will also report.

The Board has also been pleased to be able to support **two rapid reviews of learning from the first period of "lockdown"** for **both the care home and retirement housing communities**, both of which have been published and shared widely.

In December 2020, **Zinc, the innovation fund which delivers mission-led, research-informed venture builder programmes**, one of which has been focused on developing products and services to improve the quality of later life, delivered its **"Mission 3 report"**, commissioned by the Trust, **on the learning from its venture-builder programme**. It was pleasing to see the host of innovative products and services that had been launched, as well as having provided a number of researchers with alternative career paths.

It is also pleasing to have seen substantial progress with the **£1M three-year #iwill Care Home Friends and Neighbours Intergenerational Linking Project: linking older people in care homes with young people in their communities**, which the Trust co-funded with the National Lottery Community Fund in 2019/20. Despite the pandemic threatening to severely curtail the original plans of the two pilot projects funded under the scheme, both swiftly pivoted their activities to facilitate online or other forms of safe delivery. Much was learned and will form an excellent basis for the **nine further projects that were funded in April 2021**.

The Trust's collaboration with **Nesta** came to its conclusion during 2020/21, with the publication of **two widely-shared reports**: one capturing the principles and behaviours underpinning the grant funding programme which provided support for seven social movements engaged in campaigning for systemic changes in

health and social care. The participating movements ranged from a group of undergraduate medical students campaigning to integrate social prescribing into early clinician training and bring about medical education reforms across the UK, to care workers demanding the professionalisation of their work, together with improved pay, training and regulation. It reflected on how funding cohorts and activities of this type differs from supporting projects or more traditionally governed organisations, and what structures and methods can help make funding like this successful, as a resource for other funders. The other focused on the experiences of each of the seven participants, capturing the learning and sharing it more widely, although the plans to do so were limited by the pandemic.

The Mid and East Antrim Agewell Partnership (MEAAP), funded by the Trust in 2017 in a £1M three-year proof-of-concept programme, goes from strength to strength. It published its “Sharing our Learning” Report in March 2020 demonstrating its successful impact in both financial and social terms. It has had a further opportunity to demonstrate the strength of its model during the past year when its services have been much appreciated by the vulnerable older adults whose lives it set out to improve well before anyone could have known about the challenges a pandemic would bring. So compelling were the outcomes that the Trust was delighted in June 2020 to enter into a **partnership with the Health and Social Care Board (HSCB) of Northern Ireland to ensure that the partnership has funding**

support for a further five years in total. The Impact Agewell® partnership looks forward to working closely with the HSCB as it builds its response to the Integrated Care Partnership model.

All of this was achieved by a team of only three staff in place for much of the year. The team finished the year with two welcome additions: its latest recruit from the *Charityworks* programme on a 12-month internship (in September) and the new Head of Research Policy and Awards (in December). This latter post was created as a result of a **restructuring of the team to support the changed priorities of the new strategic framework** and the Trust's former Director of Grants and Research has now taken up the second new senior post of Head of Communities and Governance.

Lastly, the Board is pleased to report that it **finalised the sale of its land at Fontwell in Sussex**, the welcome financial injection from which provides additional confidence that we will be able to stand by the financial commitment we made to delivering our five-year plan.

“I have received excellent support from the Dunhill Medical Trust as the funder for this research. They have been sympathetic and patient to the issues that have arisen in the recruitment of the postdoctoral research assistant.”

Professor Rachel Waddington, Cardiff University

4. Financial review and investment policy

Under the terms of the Articles of Association of the charitable company, the Trustees have full powers to hold the Trust's funds in any form of investment which they deem to be suitable in furtherance of the charitable objects.

The strategic aim of the Trust is to achieve long term overall return and, to minimise risk from market turbulence, a diverse range of assets are held by several investment fund managers.

As required by the Trustee Act 2000, the Investment Policy is reviewed annually by the Investment Committee, with any subsequent changes being recommended to the Trustees for approval. The policy outlines the Trust's current long and medium-term objectives, as well as any restrictions, and establishes the broad parameters within which fund managers are appointed.

Investment performance is monitored by the Investment Committee on an on-going basis. The Trust's investment advisors provide detailed quarterly performance reports which also include any specific issues which require consideration and/or any proposals for changes which might be made to the Trust's portfolio and investment fund managers present to the Committee periodically. Recommendations based on this advice are made by the Committee to the Board of Trustees, with the final approval resting with the Trustees.

In March 2020, the Trust appointed new investment consultants, Cambridge Associates, following a routine periodic review and invitation to tender process.

During 2020/21, the value of the Trust's investment portfolio (excluding the proceeds of sale of its development land) increased by 17%. This represents an increase since inception (2013/14) of 7.9%, slightly behind its benchmark of 8.4% but ahead of the real return target of RPI +4.5% (6.7%).

The liquidity reserve, set at around 10% of the portfolio's value (15% as at the year-end) means that the Trust believes it will be able to meet existing commitments without having to sell growth assets at short notice. For the time being, the situation will continue to be monitored carefully as there is still a good deal of uncertainty around the economic implications of the pandemic crisis and Brexit.

The Board continues to take the advice of its consultants and the Investment Committee and believes it has taken the appropriate mitigating actions in response.

Investment income received by the Trust during 2020/21 was substantially lower than that of the previous year, at £2,582,448 (2019/20: £3,638,714) as certain major sectors of the economy suffered the impact of the pandemic and announced reductions in dividends. The Trust manages its portfolio for total return, however, and this is not expected to impact its short to medium term distribution plans.

The total funds of the charity at the year-end were represented as follows:

	£m	%
Fixed assets	0.07	0.04
Investments:		
<i>Quoted – other</i>	143.54	91.31
<i>Quoted – property</i>	9.47	6.02
<i>Managed balances</i>	0.52	0.33
<i>Property</i>	0.25	0.16
<i>Bank balances</i>	14.16	9.01
Net current liabilities (excl. bank balances)	(6.49)	(4.13)
Long term liabilities	(4.31)	(2.74)
	157.21	100.0

5. Reserves policy

The Trustees' policy is to review reserves levels on a regular basis to ensure that there is a stable base for grants provision, in line with its plans, and to support continuing operations, while at the same time ensuring excessive funds are not accumulated.

During the year ended 31 March 2021, the Trust made grants in excess of its current year's income, supplying the difference from the expendable endowment and the prior year balance of

unrestricted income. Unrestricted funds are available for use at the discretion of the Trustees in furtherance of the general objectives of the charity and which have not been designated for other purposes. The charity has a single expendable endowment and the Trustees distribute the income therefrom as grants. At the Trustees' discretion, grants may also be made out of the endowment. The expendable endowment receives the gains and losses on investment and funds transferred as necessary when unrestricted expenditure is in excess of income.

The Trustees have considered the reserves of the charity and conclude that there is no need for the Trust to carry free reserves. The nature of the expendable endowment fund is such that the Trustees have absolute discretion over how this is spent and can realise some of the relatively large proportion of its assets in cash or liquid equity and fixed income instruments, as needed.

6. Risk management

The Trustees have adopted a formal risk policy and a risk register is maintained with appropriate systems or procedures established to mitigate the risks the charity faces. An annual risk assessment for each of the principal areas of the Trust's operations is undertaken and, in addition, the Investment and Grants Committees review risks specifically related to their areas of operation at their quarterly meetings, with any issues raised

being reported to Board.

The Trust's principal material financial risks, including foreign exchange exposures, relate to its investment portfolio and are in line with similar long-term endowment funds in the sector. Overall investment risk management is predicated on running a diversified portfolio of high-quality assets across a wide variety of asset classes and markets. In recent years, the longer-term strategic asset mix has been set by the Investment Committee, based upon principles employed by reputable investment advisors. With the appointment of investment consultants, independent external advice on asset allocation provides another method of risk mitigation for the Trust. Individual investment mandates are awarded to specialist managers after scrutiny by both the appointed consultants and the Investment Committee.

The current uncertain global financial markets have been kept under regular and detailed review by the Investment Committee (and will continue to be monitored on an on-going basis). The Trustees accept that the consequences continue to be largely uncertain and may remain so for some time but consider that the Trust has protected its assets in as far as this is possible through maintaining and enhancing the diversification of its portfolio. The Board initiated a strategic review of the portfolio during 2020/21 as part of the wider strategic planning process, taking advice on how it might more robustly monitor and scrutinise environmental, social and governance matters in the underlying assets in its

portfolio and, for example, to mitigate the financial impacts of climate change.

The principal risks facing the Trust are as follows:

- Significant investment losses as a result of political and economic uncertainty. While the Board is comfortable with the level of risk inherent in equity markets, it keeps its dynamic asset allocation and all its investments under close review. It ensures that individuals with relevant expertise are co-opted on to the Investment Committee and employ the services of an independent investment advisor, Cambridge Associates.
- Poor grant-making would mean that the objectives of the Trust may not be advanced in line with its intent. In particular, the Board is concerned about the current capacity in the academic and clinical research environment to initiate new work – especially as the subject matter will often involve vulnerable groups.
- A specific addition was made to the risk register in respect of the impact of COVID-19. The decision was taken not to call for new grant applications in late March 2020 as had previously been planned, releasing £1M to be applied to the support of existing award-holders. Award-holders have expressed their appreciation of this support and personal contact. The Chief Executive and the Committees of the Board are keeping the progress of the awards under close review, as well as the

financial calls being made against this commitment. The Board's belief is that it is important that to ensure that the investment it has already made in research and projects it had deemed to be important are given the best chance of achieving a good outcome. The executive team are in close contact with all award-holders to ensure they are in a position to take early action should it become apparent that the project or indeed the organisation to which the award has been made should become vulnerable and the project untenable in the longer term.

While it cannot eliminate these risks entirely, it has a raft of measures in place to mitigate them, including ensuring it acts on the advice of suitably experienced grants committee members, keeping staff development and training up to date and keeping all processes and procedures under regular review. The new strategic plan has identified a number of key themes aimed to reduce the volume and wide diversity of applications and improve the success rates for applicants, whilst maintaining high quality and areas of priority need.

In the opinion of the Trustees, the Trust has established review systems which, under normal conditions, should allow the risks identified by them to be mitigated to an acceptable level in its day-to-day operations. It is recognised that systems can only provide reasonable, but not absolute, assurance that major risks have been adequately managed.

7. Governance and management

7.1 Charitable purpose

The funds of the Dunhill Medical Trust originated from the Will Trust of Herbert Edward Dunhill who died in 1950. They were intended to be used for the furtherance of medical knowledge and research, in the light of Herbert Dunhill's own experience of 25 years of ill-health resulting from the effects of tuberculosis¹. In 1986, with the agreement of the Charity Commissioners, the Will Trust was reconstituted to broaden the charitable objects to include research into the care of older people and the provision of accommodation and care for older people and in 1988, the Commissioners approved a transfer of the assets to a Charity called The Dunhill Medical Trust.

In 2010 the Trustees resolved that, in line with best practice for charities with substantial assets, the Trust should become a charitable company limited by guarantee and the new corporate entity came into being on 1 April, 2011. The charitable objects remained unchanged. All Trustees of The Dunhill Medical Trust are also Directors and Members of the charitable company.

¹ The Dunhill Medical Trust promotes the highest standards of ethical practice in scientific and medical research. It does not receive or seek funds from any external body and complies fully with the Joint Protocol of Cancer Research and Universities UK on Tobacco Industry Funding to Universities (2004), as revised in 2018.

“The Dunhill Medical Trust were incredibly supportive and pro-active in their response to COVID. I had no difficulty in securing an extension to my fellowship to allow me to return to clinical work.”

Peter Hartley, Research Training Fellow, University of Cambridge

7.2 The Board of Trustees and its sub-committees

Under the Articles of Association, the Trustees are responsible for the charity, its property and funds and are appointed by the Board of Trustees. Trustees serve for four years, after which period they may be re-appointed for one further term of office, by mutual agreement. Although the Articles provide for a minimum of three Trustees, no maximum number is specified to ensure the Board's ability to have access to a wide range of expertise appropriate to the strategic development of the Trust.

Trustees' meetings are held quarterly. The administration and management of the Trust's business is delegated to the Chief Executive, who is supported by a Head of Communities and Governance, a Head of Research Policy and Awards and two Grants Officers. Following the refreshment of the Charity Governance Code in 2020, the Board of Trustees instituted a review of its performance against seven key pillars of good governance. It is pleased to report satisfactory performance in all areas, while identifying and accepting the need for on-going review and improvement, a process to which it is committed.

The Trust has a Conflict of Interest Policy and Codes of Conduct for its Board and Committees and these are based on the Charity Governance Code and the Nolan Principles of Good Governance. Trustees and Committee members are required to declare all relevant interests, details of which are kept in a Register of Interests which is updated regularly.

Trustees and external advisers give their time on a voluntary basis, with out-of-pocket expenses being reimbursed in line with an agreed expenses policy. Details of Trustees' expenses and related party transactions for the year 2020/21 are disclosed in Note 9 and 20 to the accounts. Grants to institutions and charities where Trustees or external advisers have a significant interest are noted in the list of grants on pages 46–47.

7.2.1 Grants Committees

The Board of the Trust is advised by two Grants Committees: a Research Grants Committee and a Community Grants Committee. Each have delegated authority to make awards within the budgetary envelope agreed by the Board and is chaired by a suitably qualified Trustee and includes a number of external advisers with professional or academic expertise and experience appropriate to the work of the Committees. The Committees also advise the Board on sectoral trends and other external changes which have implications for the development of the Trust's grant-making programmes and their funding.

The Trust submits its governance and decision-making processes for the Research Grants Committee to quinquennial review (Peer Review Audit) by its membership body, the Association of Medical Research Charities (AMRC) and is pleased to have been re-accredited during 2020 for a further five years. Achieving this accreditation is considered a hallmark of quality by universities, government, and funding bodies.

The Trustees are grateful for the time freely given by the Committees' independent advisors who are all volunteers with a range of other professional commitments. Their willingness to serve on the Committees is much appreciated by the Trustees.

7.2.2 Investment Committee

Also reporting to the Board is an Investment Committee, the purpose of which is to provide advice on investment strategies appropriate to the Trust's charitable aims, and to recommend to the Trustees any changes in investment arrangements which the Committee considers appropriate. Meeting quarterly and comprising of Trustees and external advisers with relevant professional investment / financial expertise, it is also responsible for monitoring the performance of the Trust's investment managers and that of their appointed professional investment consultants. As part of a rolling review of the Trust's professional advisors, Cambridge Associates were appointed as the Trust's investment advisors in March 2020, replacing Stanhope Consulting, following a process of consideration of Requests for Proposals.

7.3 Recruitment and training of new Trustees

The Trust has a policy and process for the appointment of Trustees which is based on the Charity Commission's requirements to demonstrate openness and good governance. Regular reviews of the skills required are carried out by the Board of Trustees to

identify any gaps. Open advertisement is used to ensure that the widest possible range of potential candidates is reached, and a formal selection process followed, including interview of the shortlisted candidates and appropriate due diligence carried out to confirm eligibility to act.

New Trustees are provided with a comprehensive induction and on-going access to a secure area of the Trust's website containing all key governance documents, committee papers and the Trustees' library. All Trustees are encouraged to keep up to date with best governance practice and are supported in this through identification and provision of suitable materials and training, funded by the Trust. The Trust has recently instituted a process of annual Board performance review against the requirements of the Charity Governance Code.

8. Plans for the future

The Trust remains committed to supporting its existing award-holders through the continuing effects of the pandemic and has ear-marked substantial funds to enable it to do so. As the country emerges from the pandemic, all the indications are that the needs on which the Trust has focused for nearly fifty years now, will be even greater. The country now has the opportunity to start on the process of building an infrastructure for a society that is fit for all ages and the Trust wishes to play its part.

In order to manage the demand for the Trust's funds and to try to focus on high priority areas which are not well-supported or addressed by public funding sources, a themed approach to calls for applications has been adopted, the first of which was launched in spring 2021. Awards for community grants activities will be proactively managed from now on, with the focus on larger, innovative programmes which have the potential to make positive systemic change at local, regional, and national scale. Programmes which encourage the close collaboration of the academic and clinical research communities and community-led organisations providing accommodation and services to older adults will be prioritised.

Investing in the development of research capacity in ageing-related research remains an important priority. Plans will be developed in line with the commitment made in 2020/21 to the Concordat to Support the Career Development of Researchers, to which the Trust became a signatory, ranging from the provision of additional networking and online profiling opportunities for early career researchers to the piloting of more flexibility in funding for first-time Principal Investigators and post-doctoral researchers.

The work of the Investment Committee will continue in pursuit of the Trust's revised Investment Policy, particularly in monitoring the environmental, social and governance aspects of our investments and taking suitable action where fund managers' strategies are shown not to be aligned with the Trust's required

standards. It will also work closely with the Board in developing suitable strategies which enable the Trust to use its substantial endowment in new ways to achieve more for its mission.

9. Statement of Trustees' responsibilities

The Trustees (who are also Directors of The Dunhill Medical Trust for the purposes of company law) are responsible for preparing the Trustees' Annual Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

Company law requires the Trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the charitable company and of the incoming resources and application of resources, including the income and expenditure, of the charitable company for that period. In preparing these financial statements, the Trustees are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charities Statement of Recommended Practice (SORP);

- make judgments and accounting estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charitable company will continue in business.

The Trustees are responsible for keeping adequate accounting records that disclose with reasonable accuracy at any time the financial position of the charitable company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the charitable company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Insofar as the Trustees are aware:

- there is no relevant audit information of which the charitable company's auditor is unaware; and
- the Trustees have taken all steps that they ought to have taken to make themselves aware of any relevant audit information and to establish that the auditor is aware of that information.

The Trustees are responsible for the maintenance and integrity of the corporate and financial information included on the charitable company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Approved by the Board of Trustees and signed on its behalf by:



Professor Alison Petch OBE
Chair



Independent auditor's report and financial statements

Independent auditor's report to the members of the Dunhill Medical Trust

Opinion

We have audited the financial statements of The Dunhill Medical Trust for the year ended 31 March 2021 which comprise the Statement of Financial Activities, the Balance Sheet, the Cash Flow Statement and the notes to the financial statements, including significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102, the Financial Reporting Standard applicable in the UK and Republic of Ireland (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the charitable company's state of affairs as at 31 March 2021 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the Companies Act 2006.

Basis for opinion

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

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the trustees' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the charitable company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the trustees with respect to going concern are described in the relevant sections of this report.

Other information

The trustees 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.

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 course of 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 this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information we are required to report that fact.

We have nothing to report in this regard.

Opinions on other matters prescribed by the Companies Act 2006

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

- the information given in the Trustees' Report which includes the Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Trustees' Report which includes the Directors' Report has been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

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

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

- adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us
- the financial statements are not in agreement with the accounting records and returns
- certain disclosures of trustees' remuneration specified by law are not made
- we have not received all the information and explanations we require for our audit
- the trustees were not entitled to prepare the financial statements in accordance with the small companies regime and to take advantage of the small companies exemption in preparing the Trustees' Report.

Responsibilities of trustees

As explained more fully in the Trustees' Responsibilities Statement set out on page 18, the trustees (who are also directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Auditor's responsibilities for the audit of the financial statements

We have been appointed as auditors under the Companies Act 2006 and report in accordance with regulations made under that Act.

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.

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The specific procedures for this engagement and the extent to which these are capable of detecting irregularities, including fraud are detailed below.

Identifying and assessing risks related to irregularities:

We assessed the susceptibility of the charitable company's financial statements to material misstatement and how fraud might occur, including through discussions with management, discussions within our audit team planning meeting, updating our record of internal controls and ensuring these controls operated as intended. We evaluated possible incentives and opportunities for fraudulent manipulation of the financial statements. We identified laws and regulations that are of significance in the context of the charitable company by discussions with trustees and updating our understanding of the sector in which the charitable company operates.

Laws and regulations of direct significance in the context of the charitable company include The Companies Act 2006, and guidance issued by the Charity Commission for England and Wales.

Audit response to risks identified:

We considered the extent of compliance with these laws and regulations as part of our audit procedures on the related financial statement items including a review of financial statement disclosures. We reviewed the charitable company's records of breaches of laws and regulations, minutes of meetings and correspondence with relevant authorities to identify potential material misstatements arising. We discussed the charitable company's policies and procedures for compliance with laws and regulations with members of management responsible for compliance.

During the planning meeting with the audit team, the engagement partner drew attention to the key areas which might involve non-compliance with laws and regulations or fraud. We enquired of management whether they were aware of any instances of non-compliance with laws and regulations or knowledge of any actual, suspected or alleged fraud. We addressed the risk of fraud through management override of controls by testing the appropriateness of journal entries and identifying any significant transactions that were unusual or outside the normal course of business. We assessed whether judgements made in making accounting estimates gave rise to a possible indication of management bias. At the completion stage of the audit, the engagement partner's review included ensuring that the team had approached their work with appropriate professional scepticism and thus the capacity to identify non-compliance with laws and

regulations and fraud.

There are inherent limitations in the audit procedures described above and the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely we would become aware of it. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

A further description of our responsibilities is available on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Use of our report

This report is made solely to the charitable company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the charitable 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 charitable company and the charitable company's members as a body, for our audit work, for this report, or for the opinions we have formed.



Cara Turtlington (Senior Statutory Auditor)
for and on behalf of Saffery Champness LLP

Chartered Accountants
Statutory Auditors

71 Queen Victoria Street
London EC4V 4BE

Date *30 September 2021*
Saffery Champness LLP is eligible to act as an auditor in terms of section 1212 of the Companies Act 2006

Balance sheet as at 31 March 2021

	Notes	2021 (£)	2020 (£)
Fixed assets			
Tangible assets	10	71,798	87,326
Investments	11	153,773,187	131,891,281
		<u>153,844,985</u>	<u>131,978,607</u>
Current assets			
Debtors	12	402,422	983,554
Cash at bank and in hand		14,162,685	7,398,524
		<u>14,565,107</u>	<u>8,382,078</u>
Creditors: due within one year	13	6,891,466	6,873,541
Net current assets		7,673,641	1,508,537
Total assets less current liabilities		<u>161,518,626</u>	<u>133,487,144</u>
Creditors: due after more than one year	14	4,306,716	4,777,065
Net assets		<u>157,211,910</u>	<u>128,710,079</u>
Charity funds			
Endowment funds:			
Expendable endowment	17	157,197,033	126,945,056
Unrestricted funds	17	-	1,393,024
Designated funds	17	-	189,869
Restricted funds	17	14,877	182,130
Total charity funds		<u>157,211,910</u>	<u>128,710,079</u>

These financial statements have been prepared in accordance with the provisions applicable to companies subject to the small companies' regime.

The notes on pages 29 to 44 form part of these accounts.

The financial statements were approved and authorised for issue by the Board on *2 September* 2021.



Signed on behalf of the Board of Trustees
Professor Alison Patch OBE
Chair

Statement of financial activities
Including income and expenditure account for the year ended
31 March, 2021

	Notes	Unrestricted	Restricted	Expendable endowment	2021 (£)	2020 (£)
Income and endowments from:						
Investment income	2	2,582,448	-	-	2,582,448	3,638,714
Grants and Donations		-	-	-	-	500,000
Total income and endowments		2,582,448	-	-	2,582,448	4,138,714
Expenditure on:						
Raising funds	3	-	-	(272,664)	(272,664)	(234,222)
Charitable activities	4	(4,450,908)	(167,253)	-	(4,618,161)	(5,580,452)
Total expenditure		(4,450,908)	(167,253)	(272,664)	(4,890,825)	(5,814,674)
Net gains / (losses) on investments		-	-	30,589,783	30,589,783	(10,575,376)
Net income / (expenditure)	6	(1,868,460)	(167,253)	30,317,119	28,281,406	(12,251,336)
Transfer between funds		285,567	-	(285,567)	-	-
Other recognised gains / (losses):						
Other gains / (losses) – exchange gains		-	-	220,425	220,425	526
Net movement in funds		(1,582,893)	(167,253)	30,251,977	28,501,831	(12,250,810)
Reconciliation of funds:						
Total funds brought forward		1,582,893	182,130	126,945,056	128,710,079	140,960,889
Total funds carried forward	17	-	14,877	157,197,033	157,211,910	128,710,079

Statement of cash flows
For the year ended 31 March 2021

	Notes	2021 (£)	2020 (£)
Cash flow from operating activities	19	(2,155,030)	(2,114,363)
Net cash flow from operating activities		<u>(2,155,030)</u>	<u>(2,114,363)</u>
Cash flow from investing activities			
Payments to acquire tangible fixed assets		(9,111)	(1,518)
Receipts from sales of tangible fixed assets		881,374	81
Payments to acquire fixed asset investments		(15,586,627)	(26,251,682)
Receipts from sales of fixed asset investments		23,761,001	27,311,555
Net cash flow from investing activities		<u>9,046,637</u>	<u>1,058,436</u>
Net increase / (decrease) in cash and cash equivalents		6,891,607	(1,055,927)
Analysis of cash and cash equivalents			
Cash and cash equivalents at 1 April 2020		7,574,801	8,630,728
Change in cash and cash equivalents due to exchange rate movements		220,425	-
Cash and cash equivalents at 31 March 2021		<u>14,686,833</u>	<u>7,574,801</u>
Cash at bank and in hand		14,162,685	7,398,524
Bank balances controlled by investment managers at year end	11	524,148	176,277
Cash and cash equivalents at 31 March 2021		<u>14,686,833</u>	<u>7,574,801</u>
Analysis of changes in net debt			
	As at 1 April 2020	Cash flows	Foreign exchange movements
Cash at bank	7,398,524	6,764,161	-
Cash held by investment managers	176,277	127,446	220,425
Total	<u>7,574,801</u>	<u>6,891,607</u>	<u>220,425</u>
			<u>14,686,833</u>

Notes to the financial statements

1. Summary of significant accounting policies

(a) General information and basis of preparation

The Dunhill Medical Trust is a charitable company limited by guarantee registered in the United Kingdom. In the event of the charity being wound up, the liability in respect of the guarantee is limited to £1 per member of the charity. The address of the registered office is given in the Reference and Administrative Information at the front of the Annual Report. The nature of the charity's operations and principal activities are the furtherance of medical knowledge and research including research into improving the health and social care of older people and the provision of accommodation and care for older people.

The charity constitutes a public benefit entity as defined by FRS 102. The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102), the Financial Reporting Standard applicable in the United Kingdom and Republic of Ireland (FRS 102), the Charities Act 2011, the Companies Act 2006 and UK Generally Accepted Practice.

The financial statements have been prepared on a going concern basis under the historical cost convention, modified to include certain items at fair value. The financial statements are prepared in sterling which is the functional currency of the charity and rounded to the nearest £1.

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

(b) Funds

Unrestricted funds are available for use at the discretion of the trustees in furtherance of the general objectives of the charity and which have not been designated for other purposes. The charity has a single expendable endowment and the Trustees distribute the income therefrom as grants. At the Trustees' discretion grants may also be made out of the endowment. The expendable endowment receives the gains and losses on investment and funds transferred as necessary when unrestricted expenditure is in excess of income.

(c) Income recognition

All incoming resources are included in the Statement of Financial Activities (SOFA) when the charity is legally entitled to the income after any performance conditions have been met, the amount can be measured reliably and it is probable that the income will be received.

No amount is included in the financial statements for volunteer time in line with the SORP (FRS 102). Further detail is given in the Trustees' Annual Report.

Investment income is earned through holding assets for investment purposes such as shares and property. It includes dividends, interest and rent. Where it is not practicable to identify investment management costs incurred within a scheme with reasonable accuracy the investment income is reported net of these costs. It is included when the amount can be measured reliably. Interest income is recognised using the effective interest method and dividend and rent income is recognised as the charity's right to receive payment is established.

(d) Expenditure recognition

All expenditure is accounted for on an accruals basis and has been classified under headings that aggregate all costs related to the category. Expenditure is recognised where there is a legal or constructive obligation to make payments to third parties, it is probable that the settlement will be required and the amount of the obligation can be measured reliably. It is categorised under the following headings:

- Costs of raising funds includes investment managers' fees;

- Expenditure on charitable activities includes grants payable to charities and institutions as well as support and governance costs; and

- Other expenditure represents those items not falling into the categories above.

- Irrecoverable VAT is charged as an expense against the activity for which expenditure arose.

The Trust makes grants to a variety of applicants in line with their policy stated in the Trustees' Report and on the fulfilment of certain specific conditions. The trustees approve these grants at their quarterly meetings following a rigorous assessment of the viability of the projects. The full cost of the grant commitment is recognised on approval by the trustees and, where appropriate, is recognised as a long term liability within the financial statements. It is on this basis that they are included in the accounts and charged against income or endowment as appropriate.

(e) Support costs allocation

Support costs are those that assist the work of the charity but do not directly represent charitable activities and include office costs, governance costs, and administrative payroll costs. They are incurred directly in support of expenditure on the objects of the charity and include project management carried out at Headquarters. Where support costs cannot be directly attributed

to particular headings they have been allocated to cost of raising funds and expenditure on charitable activities on a basis consistent with use of the resources. Premises overheads have been allocated on an actual basis and other overheads have been allocated on an actual basis to the relevant support expense heading.

The analysis of these costs is included in note 5.

(f) Tangible fixed assets

Tangible fixed assets are stated at cost (or deemed cost) or valuation less accumulated depreciation and accumulated impairment losses. Cost includes costs directly attributable to making the asset capable of operating as intended.

Depreciation is provided on all tangible fixed assets, at rates calculated to write off the cost, less estimated residual value, of each asset on a systematic basis over its expected useful life as follows:

- Leasehold property: over the life of the lease
- Fixtures and fittings: 20% reducing balance

(g) Investments

Investments are recognised initially at fair value which is normally the transaction price excluding transaction costs. Subsequently, they are measured at fair value with changes recognised in 'net gains / (losses) on investments' in the SOFA if

the shares are publicly traded or their fair value can otherwise be measured reliably. Other investments are measured at cost less impairment. Investments in subsidiaries are measured at cost less impairment. The DMT (Fontwell Land) Limited is a dormant company as at 31 March 2021. No consolidated accounts are prepared as the subsidiary is not material to the charity.

(h) Debtors and creditors receivable / payable within one year

Debtors and creditors with no stated interest rate and receivable or payable within one year are recorded at transaction price. Any losses arising from impairment are recognised in expenditure.

(i) Impairment

Assets not measured at fair value are reviewed for any indication that the asset may be impaired at each balance sheet date. If such indication exists, the recoverable amount of the asset, or the asset's cash generating unit, is estimated and compared to the carrying amount. Where the carrying amount exceeds its recoverable amount, an impairment loss is recognised in profit or loss unless the asset is carried at a revalued amount where the impairment loss is a revaluation decrease.

(j) Provisions

Provisions are recognised when the charity has an obligation at the balance sheet date as a result of a past event, it is probable

that an outflow of economic benefits will be required in settlement and the amount can be reliably estimated.

(k) Leases

Assets acquired under finance leases are capitalised and depreciated over the shorter of the lease term and the expected useful life of the asset. Minimum lease payments are apportioned between the finance charge and the reduction of the outstanding lease liability using the effective interest method.

The related obligations, net of future finance charges, are included in creditors. Rentals payable and receivable under operating leases are charged to the SoFA on a straight line basis over the period of the lease.

(l) Foreign currency

Foreign currency transactions are initially recognised by applying to the foreign currency amount the spot exchange rate between the functional currency and the foreign currency at the date of the transaction.

Monetary assets and liabilities denominated in a foreign currency at the balance sheet date are translated using the closing rate.

(m) Employee benefits

When employees have rendered service to the charity, short-

term employee benefits to which the employees are entitled are recognised at the undiscounted amount expected to be paid in exchange for that service.

The charity provides a defined contribution to the employees' personal pensions. Contributions are expensed as they become payable.

(n) Tax

The charity is an exempt charity within the meaning of schedule 3 of the Charities Act 2011 and is considered to pass the tests set out in Paragraph 1 Schedule 6 Finance Act 2010 and therefore it meets the definition of a charitable company for UK corporation tax purposes.

(o) Going concern

The Trustees have assessed the impact on the charity of the coronavirus pandemic. Whilst the virus has affected the value of investments, primarily, at the year end there has been significant recovery post year end. The Trustees do not deem the pandemic to have a negative effect on the charity's ability to operate going forward. Further, the Trustees have considered the level of funds held and the expected level of income and expenditure for 12 months from authorising these financial statements. The budgeted income and expenditure is sufficient with the level of reserves for the charity to be able to continue as a going concern.

(p) Financial instruments

The Charity has elected to apply the provisions of Section 11 'Basic Financial Instruments' and Section 12 'Other Financial Instruments Issues' of FRS 102 to all of its financial instruments.

Financial instruments are recognised in the Charity's balance sheet when the Charity becomes party to the contractual provisions of the instrument.

Financial assets and liabilities are offset, with the net amounts presented in the financial statements, when there is a legally enforceable right to set off the recognised amounts and there is an intention to settle on a net basis or to realise the asset and settle the liability simultaneously.

Financial assets

Basic financial assets, which include debtors and cash and bank balances, are measured at transaction price.

Other financial assets, including investments in equity instruments which are not subsidiaries, associates or joint ventures, are initially measured at fair value, which is normally the transaction price. Such assets are subsequently carried at fair value and the changes in fair value are recognised in net income/ (expenditure), except that investments in equity instruments that are not publicly traded and whose fair values cannot be measured reliably are measured at cost less impairment.

Impairment of financial assets

Financial assets, other than those held at fair value through income and expenditure, are assessed for indicators of impairment at each reporting date. Financial assets are impaired where there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows have been affected.

If an asset is impaired, the impairment loss is the difference between the carrying amount and the present value of the estimated cash flows discounted at the asset's original effective interest rate. The impairment loss is recognised in net income/ (expenditure) for the year.

If there is a decrease in the impairment loss arising from an event occurring after the impairment was recognised, the impairment is reversed. The reversal is such that the current carrying amount does not exceed what the carrying amount would have been, had the impairment not previously been recognised. The impairment reversal is recognised in net income/(expenditure) for the year.

Derecognition of financial assets

Financial assets are derecognised only when the contractual rights to the cash flows from the assets expire or are settled, or when the company transfers the financial assets and substantially all the risks and rewards of ownership to another entity, or if some significant risks and rewards of ownership are

retained but control of the asset has transferred to another party that is able to sell the asset in its entirety to unrelated third party.

Financial liabilities

Basic financial liabilities, including creditors are recognised at transaction price. Trade creditors are obligations to pay for goods or services that have been acquired in the ordinary course of operations from suppliers. Amounts payable are classified as current liabilities if payment is due within one year or less or if not, they are presented as non-current liabilities.

Derecognition of financial liabilities

Financial liabilities are derecognised when the company's contractual obligations expire or are discharged or cancelled.

(q) Critical accounting estimates and judgements

In the application of the Charity's accounting policies, the Trustees are required to make judgements, estimates and assumptions about the carrying amount of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised

in the period in which the estimate is revised where the revision affects only that period, or in the period of the revision and future periods where the revision affects both current and future periods.

Estimates and judgements made in the current and prior year relate to the Directors' valuation of development land – see note 11.

2. Income from investments

	2021 (£)	2020 (£)
Dividends and interest on quoted investments	2,582,372	3,642,714
Rental Income	76	(4,000)
	<u>2,582,448</u>	<u>3,638,714</u>

Income from investments was £2,582,448 (2020: £3,638,714) all of which was attributable to unrestricted funds. Gains and losses on investments in the current and prior year are attributable to endowment funds.

3. Investment management costs

	2021 (£)	2020 (£)
Investment managers' fees	272,664	234,222
	<u>272,664</u>	<u>234,222</u>

£272,664 (2020: £234,222) of the above costs were attributable to endowment funds.

Investment managers' fees include only the separately identifiable direct costs relating to portfolio management and the cost of obtaining investment advice. Further indirect costs were incurred and are included within the costs of acquisition of investments or within returns on investments.

4. Analysis of expenditure on charitable activities

	2021 (£)	2020 (£)
Grants*	3,706,833	4,876,812
Support Costs	911,328	703,640
	<u>4,618,161</u>	<u>5,580,452</u>

£3,598,183 (2020: £nil) of the above costs were attributable to endowment funds, £685,472 (2020: £4,944,712) of the above costs were attributable to unrestricted funds, £167,253 (2020: £317,870) of the above costs were attributable to designated funds, and £167,253 (2020: £317,870) of the above costs were attributable to restricted funds.

* Grant expenditure is disclosed as grants awarded less grants returned in the year as below;

	2021 (£)	2020 (£)
Grants awarded	3,937,858	5,158,240
Grants returned / withdrawn	(231,025)	(281,428)
Net grant expenditure	<u>3,706,833</u>	<u>4,876,812</u>

5. Allocation of support costs and overheads

	Total		Total	
	Charitable activities	Governance costs	year ended 2021 (£)	year ended 2020 (£)
Unrestricted income fund				
Establishment expenses	173,061	-	173,061	132,592
Administration expenses	425,253	55,448	480,701	479,786
Finance, legal and professional expenses	219,550	3,750	223,300	60,700
Expendable endowment				
Legal, accountancy and audit fees	23,016	11,250	34,266	30,562
Total per statement of financial activities (SOFA)	840,880	70,448	911,328	703,640

Included within administration expenses above are the following staff costs:

	Charitable activities	Governance costs	Total Year ended 2021 (£)
Salaries and National Insurance	201,542	50,385	251,927
Pension contributions	16,983	4,246	21,229
	218,525	54,631	273,156

5. Allocation of support costs and overheads (continued)

	Total		Total	
	Charitable activities	Governance costs	year ended 2020 (£)	
Unrestricted income fund				
Establishment expenses	132,592	-	132,592	
Administration expenses	421,420	58,366	479,786	
Finance, legal and professional expenses	56,950	3,750	60,700	
Expendable endowment				
Legal, accountancy and audit fees	19,312	11,250	30,562	
Total per statement of financial activities (SOFA)	630,274	73,366	703,640	

Included within administration expenses above are the following staff costs:

	Charitable activities	Governance costs	Total Year ended 2020 (£)
Salaries and National Insurance	210,654	52,663	263,317
Pension contributions	18,525	4,631	23,156
	229,179	57,294	286,473

6. Net income / (expenditure) for the year

Net income / (expenditure) is stated after charging / (crediting):

	2021 (£)	2020 (£)
Depreciation of tangible fixed assets	24,639	23,954
Operating lease rentals	147,537	115,857
Losses / (gains) on fair value movement of investments	(30,589,783)	10,575,376

7. Auditor's and accountants' remuneration

	2021 (£)	2020 (£)
Fees payable to the charity's auditor for the audit of the charity's annual accounts	15,000	15,000
Fees payable to the charity's accountant for other services:		
Management accounts, book-keeping, consultancy/fees and financial statements	34,266	30,562
	49,266	45,562

8. Trustees' and key management personnel remuneration and expenses

The Trustees neither received nor waived any remuneration during the year (2020: £nil).

Zero Trustees (2020: 13) were reimbursed travel expenses totalling £nil (2020: £10,733) during the year. The total amount of employee travel expenses received by key management personnel is £nil (2020: £1,672). The Trust considers its key management personnel to be its Chief Executive, Ms Susan Kay. The aggregate remuneration paid to key management personnel in the year was £111,308 (2020: £107,003).

9. Trustees' and key management personnel remuneration and expenses

The average monthly number of employees and full time equivalent (FTE) during the year were as follows:

	2021 Number	2021 FTE	2020 Number	2020 FTE
Charitable activities	3	3	4	4
Governance	1	1	1	1
	4	4	5	5

The total staff costs and employees' benefits was as follows:

	2021 (£)	2020 (£)
Employees' emoluments	227,066	239,694
Social security	24,861	23,623
Pension contributions	21,229	23,156
	273,156	286,473

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

	2021 Number	2020 Number
£60,000 – £70,000	1	1
£80,001 – £90,000	-	1
£90,001 – £100,000	1	-
	2	2

10. Fixed assets - tangible

	Short leasehold (£)	Office equipment (£)	Total (£)
Cost / valuation			
At 1 April 2020	229,392	50,685	280,077
Additions in the year	-	9,111	9,111
Disposals in the year	-	-	-
At 31 March 2021	229,392	59,796	289,188

Depreciation			
At 1 April 2020	146,765	45,986	192,751
Charge for the year	22,940	1,699	24,639
On disposals	-	-	-
At 31 March 2021	169,705	47,685	217,390

Net book value			
At 31 March 2021	59,687	12,111	71,798
At 31 March 2020	82,627	4,699	87,326

11. Fixed assets investments

	Quoted Investments (£)	Development land (£)	Balances controlled by Investment Managers (£)	Investment in subsidiary (£)	Total (£)
Cost or valuation					
At 1 April 2020	130,806,371	908,632	176,277	1	131,891,281
Additions	15,586,627	-	347,871	-	15,934,498
Disposals	(17,339,637)	(881,373)	-	-	(18,221,010)
Revaluation	23,940,707	227,711	-	-	24,168,418
At 31 March 2021	152,994,068	254,970	524,148	1	153,773,187
Carrying amount					
At 31 March 2021	152,994,068	254,970	524,148	1	153,773,187
At 31 March 2020	130,806,372	908,632	176,277	1	131,891,281

Managed funds

	2021 (£)	2020 (£)
UK – Property fund	9,466,098	15,510,466
UK investments	38,446,630	33,500,242
International investments	91,095,768	67,238,876
Equities and fixed interest securities		
UK	5,763,250	6,272,620
International	8,222,322	8,284,168
	<u>152,994,068</u>	<u>130,806,372</u>

None of the direct holdings in equities and fixed interest securities exceed 5% of the portfolio and there are no restrictions on realisation.

The investment in subsidiary above relates to the Trust's investment in The DMT (Fontwell Land) Limited, company number 08464560. The Trust holds 100% of the company's share capital. The DMT (Fontwell Land) Limited was incorporated on 27 March, 2013 and was dormant for the period to 31 March, 2021. The DMT (Fontwell Land) Limited was dissolved subsequent to the year end on 15 June 2021.

The value at which the development land is valued is based on a Trustee directors' valuation. This valuation is reviewed annually. During the year ended 31 March 2021 the majority of the development land was sold with the remainder sold shortly after the year end. The development land held at the year end has been revalued accordingly.

12. Debtors

	2021 (£)	2020 (£)
Other debtors	254,399	479,895
Accrued income	148,023	503,659
	<u>402,422</u>	<u>983,554</u>

Other debtors includes £253 (2020: £50,000) due from subsidiary undertakings in respect to The DMT (Fontwell Land) Limited.

13. Creditors: amounts due within one year

	2021 (£)	2020 (£)
Trade creditors	145,072	169,679
Other tax and social security	8,344	7,633
Committed grants	6,738,050	6,696,229
	<u>6,891,466</u>	<u>6,873,541</u>

14. Creditors: amounts due after one year

	2021 (£)	2020 (£)
Committed grants	4,306,716	4,777,065
	<u>4,306,716</u>	<u>4,777,065</u>

15. Leases

	2021 (£)	2020 (£)
Total future minimum lease payments under non-cancellable operating leases are as follows:		
Not later than one year	71,412	71,412
Later than one year and not later than five years	107,118	178,530
Later than five years	-	-
	<u>178,530</u>	<u>249,942</u>

16. Contingent liabilities / assets

In the opinion of the Trustees, the charity had no contingent liabilities or assets.

17. Reserves

	Balance at 1 April 2020 (£)	Incoming resources (£)	Resources expended (£)	New designations and transfers (£)	Total (£)
Unrestricted Income Fund	1,393,024	2,582,448	(4,283,655)	308,183	-
Expendable Endowment	126,945,056	220,425	30,317,119	(285,567)	157,197,033
Designated Fund	189,869	-	(167,253)	(22,616)	-
Restricted Income Fund	182,130	-	(167,253)	-	14,877
	128,710,079	2,802,873	25,698,958	-	157,211,910

Designated Fund

In the year to 31 March 2020, the charity entered into a matched funding agreement. The funds committed under this matched funding agreement have been designated for use solely for this purpose. The matched funding agreement spans 3 years.

Restricted Income Fund

In the year to 31 March 2020, the charity entered into a matched funding agreement. The funds received under this matched funding agreement have been restricted for use solely for this purpose. The matched funding agreement spans 3 years.

18. Analysis of net assets between funds

	Unrestricted funds (£)	Endowment funds (£)	Designated Funds (£)	Restricted Funds (£)	Total (£)
2021					
Fixed assets	-	153,844,985	-	-	153,844,985
Cash	10,795,760	3,352,048	-	14,877	14,162,685
Current assets	402,422	-	-	-	402,422
Creditors less than one year	(6,891,466)	-	-	-	(6,891,466)
Creditors more than one year	(4,306,716)	-	-	-	(4,306,716)
Total	-	157,197,033	-	14,877	157,211,910
2020					
Fixed assets	-	131,978,607	-	-	131,978,607
Cash	12,060,076	(5,033,551)	189,869	182,130	7,398,524
Current assets	983,554	-	-	-	983,554
Creditors less than one year	(6,873,541)	-	-	-	(6,873,541)
Creditors more than one year	(4,777,065)	-	-	-	(4,777,065)
Total	1,393,024	126,945,056	189,869	182,130	128,710,079

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

	2021 (£)	2020 (£)
Net income / (expenditure) for year	28,501,831	(12,250,810)
Depreciation of tangible fixed assets	24,639	23,954
(Gains) / losses on investments	(30,589,783)	10,575,376
(Gain) / loss on disposal of tangible fixed assets	-	214
(Increase) / decrease in debtors	581,132	(631,960)
Increase / (decrease) in creditors	(452,424)	168,863
Gain on exchange rate movements	(220,425)	-
Net cash flow from operating activities	(2,155,030)	(2,114,363)

20. Related party transactions

Grants paid to institutions where the Trustees or advisers of the Dunhill Medical Trust have an involvement are disclosed in the list of new grants awarded on pages 45–49.

21. Financial instruments

	2021 (£)	2020 (£)
Financial instruments measured at amortised cost		
Other debtors	254,399	479,377
Per accounts	254,399	479,337
Financial liabilities measured at amortised cost		
Trade creditors	13,706	35,684
Committed grants	11,044,766	11,473,294
Other creditors	-	-
Per accounts	11,058,472	11,508,978

Assets generally covered would be basic loans made, trade debtors, other debtors, cash/bank deposits.

Financial assets measured at fair value through profit and loss comprise of quoted investments, details of which are given in note 11.

Liabilities would include basic loans received, trade creditors and other creditors, such as grant recipients.

22. Comparative statement of financial activities to March 2020

Including income and expenditure account for the year ended 31 March 2020

	Unrestricted income fund	Restricted	Expendable Endowment	2020 (£)
Income and endowments from				
Investment income	3,638,714	-	-	3,638,714
Grants and Donations	-	500,000	-	500,000
Total income and endowments	3,638,714	500,000	-	4,138,714
Expenditure on:				
Raising funds	-	-	(234,222)	(234,222)
Charitable activities	(5,262,582)	(317,870)	-	(5,580,452)
Total expenditure	(5,262,582)	(317,870)	(234,222)	(5,814,674)
Net gains / (losses) on investments	-	-	(10,575,376)	(10,575,376)
Other gains / (losses) – exchange gains	-	-	526	526
Net income / (expenditure)	(1,623,868)	182,130	(10,809,072)	(12,250,810)
Reconciliation of funds:				
Total funds brought forward	3,206,761	-	137,754,128	140,960,889
Total funds carried forward	1,582,893	182,130	126,945,056	128,710,079

The Statement of financial activities includes all gains and losses in the year. All incoming resources and resources expended relate to the charity's one main activity, which is that of grant making. This activity is a continuing operation.



New grants awarded 2020/21

New grants awarded, by category

Grants for academic and clinical researchers: project grants

Principal Investigator	Institution	Project title	Value of award				
Dr Monique Andersson	University of Oxford	Improving Outcomes in Necrotising Otitis Externa (IONOE)	£36,511	Professor Ben Rickayzen	City University, London	Almshouse Longevity Study	£16,950
Dr Fabia Franco	Middlesex University	MusiCare: Protecting Cognitive Functions and Wellbeing Using Music Therapy & Innovative Technology with an Aging Population	£299,957	Dr Jason Scott ¹	Northumbria University	Developing a co-designed systems-level response to safety issues for residents transitioning from hospital to care homes	£209,586
Dr Rhoda MacRae	University of the West of Scotland	Improving the health and well-being of older people with cognitive frailty and dementia in prison	£114,785	Dr Karen Watchman	University of Stirling	Perspectives of older couples with a learning disability when one partner has dementia: identifying support needs of carer dyads.	£138,190
Dr Ryan Moseley	Cardiff University	Development of epoxy-tigilanes as novel small molecule therapeutics for impaired re-epithelialisation associated with non-healing, chronic skin wounds in the aged	£298,338			Five awards for prior award-holders to support open access publication fees	£10,112

1. Dr Garry Tew, a member of the Research Grants Committee at the time of the award, is a member of the faculty at Northumbria University but was neither a co-applicant nor involved in the decision regarding this award.

Grants for academic and clinical researchers: personal fellowship awards

Fellow	Institution	Project title	Value of award
Sarah Hopkins	University of Cambridge	Using experience-based co-design to improve the impact of advance care planning on the quality of life and care of frail older people	£209,107 ²
Suzanne McIlroy	King's College, London	The development and feasibility of a post-operative rehabilitation programme to improve walking in older people with neurogenic claudication	£300,372
Amy Garner	Imperial College, London	Functional, Subjective and Biomechanical Outcomes Associated with Combined Partial Knee Replacement for Multi-Compartment Arthritis – An Alternative to Total Knee Replacement?	£64,000 ³

Grants for academic and clinical researchers: multiple Phd studentship awards

Institution	Project	Value of award
University of Liverpool (Dr Simon Tew)	Contribution to the support of 10 projects in ageing-related research in Institute of Life Course and Medical Sciences	£200,000
Loughborough University (Professor Eef Hogervorst)	Support for three projects in the area of home adaptation needs of an ageing population and the benefits of healthcare technology	£122,689
University of Sheffield (Professor Stephen Renshaw)	Contribution to the support of two cohorts of four students on Healthy Lifespan Doctoral Training Programme	£200,000
University of Surrey ⁴ (Dr Kamalan Jeevaratnam)	Contribution to the support of five students on the Lifelong Health Doctoral Training programme within the Faculty of Health and Medical Sciences	£200,000

2. Co-funded with the British Geriatrics Society
3. Co-funded with the Royal College of Surgeons (relates to an award made in 2018)
4. Professor Deborah Dunn-Walters, Chair of the Research Grants Committee at the time of the award, is a member of the faculty at the University of Surrey but was neither a co-applicant nor involved in the decision regarding this award.

Grants for community-based organisations: capability development awards

Organisation	Project	Value of award
Timebanking UK	Development of social impact model	£8,520
Lifecycle UK	Building Financial Sustainability and Re-imagining Organisations Course	£595
Age UK (Bath & North East Somerset)	Building Financial Sustainability and Re-imagining Organisations Course	£990

Grants for community-based organisations: #iwill Care Home FaNs intergenerational linking project

Organisation	Project	Value of award
Alive Activities	Intergenerational Linking project in South and East Bristol (Wave 1)	£30,962
The Linking Network	Intergenerational Linking project in Bradford (Wave 1)	£31,000
Curriculum and Language Access Service	Intergenerational Linking project in Bury (Greater Manchester) (Wave 2)	£27,000
Diocese of Plymouth	Intergenerational Linking project in Devon and Dorset (Wave 2)	£30,000
Enfield Town Schools' Partnership	Intergenerational Linking project in Enfield (Wave 2)	£30,995
Global Education Derby	Intergenerational Linking project in Derbyshire (Wave 2)	£30,700
Leeds Development Education Centre	Intergenerational Linking project in Leeds (Wave 2)	£31,000
Sensory Trust	Intergenerational Linking project in Cornwall (Wave 2)	£31,000
The St Philip's Centre	Intergenerational Linking project in Leicestershire (Wave 2)	£31,000
Windmills Foundation	Intergenerational Linking project in Sefton (Wave 2)	£29,850
Woven Nest Theatre	Intergenerational Linking project in Newcastle and Sunderland (Wave 2)	£31,000

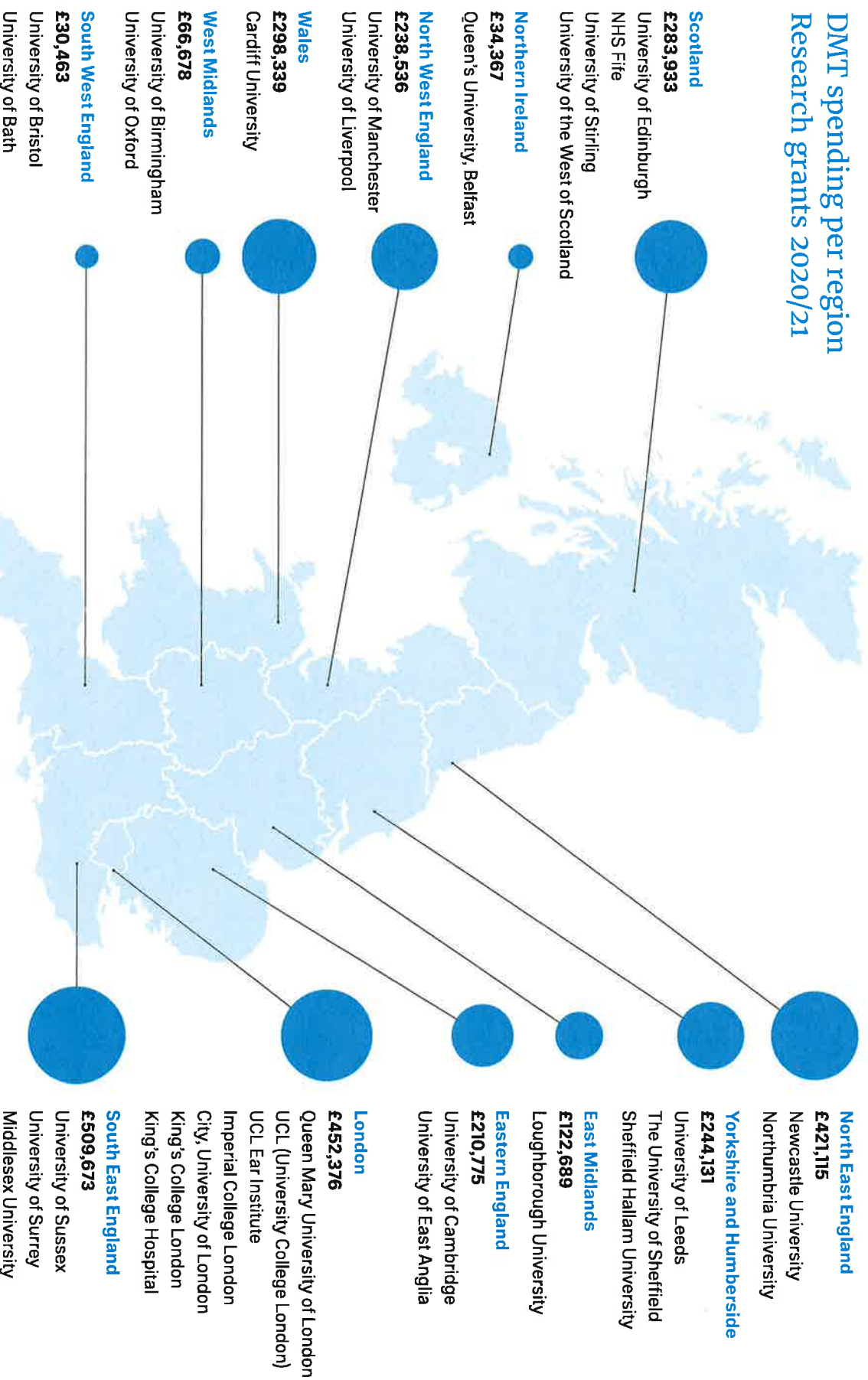
Grants to support the development of networks and evidence base for launch of new strategic framework

Organisation	Project	Value of award
Care & Repair (England)	Catch 22 Project	£50,000
Housing Learning & Improvement Network (LIN)	Technology for an Ageing Population Panel for Innovation Inquiry (TAPPi)	£41,160
Queen's Nursing Institute (Scotland)	Support for Queen's Nurses' Leadership Programme	£105,000
St Monica Trust	COVID-19: A proposed study to determine the impact, challenges and experience of Retirement Villages and Extra Care Housing in England during the pandemic (RE-COV Project)	£29,260
University of Leeds / National Care Forum	Learning by Experience and Supporting the Care Home Sector during the COVID-19 pandemic: Key lessons learnt so far by health and care practitioners working on the frontline (COVID-LESS Project)	£15,000
Social Care Institute for Excellence (SCIE)	To support the work of the Commission on the Role of Housing in the Future of Care and Support	£316,620
Early career researcher travel bursary		£687

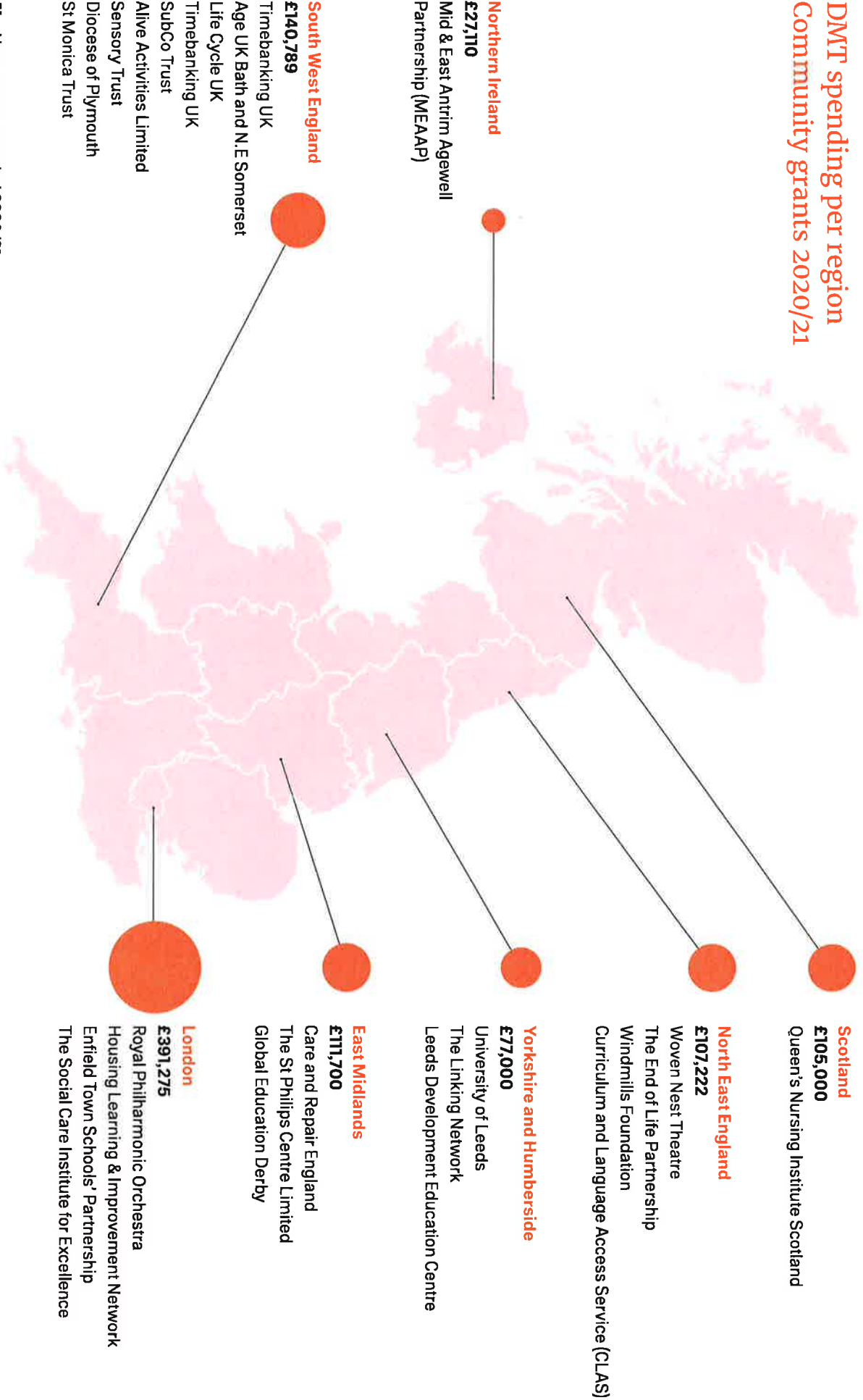
Summary of all grants awarded in the financial year 2020/21

Total new grants for academic and clinical researchers	£2,421,284
Total new grants for community-based organisations	£344,612
Total grants to support networks and evidence-building for new strategic plan period	£557,040
Total funding to support existing award-holders to complete projects delayed by restrictions related to COVID-19 (27 awards in total)	£614,922
TOTAL	£3,937,858

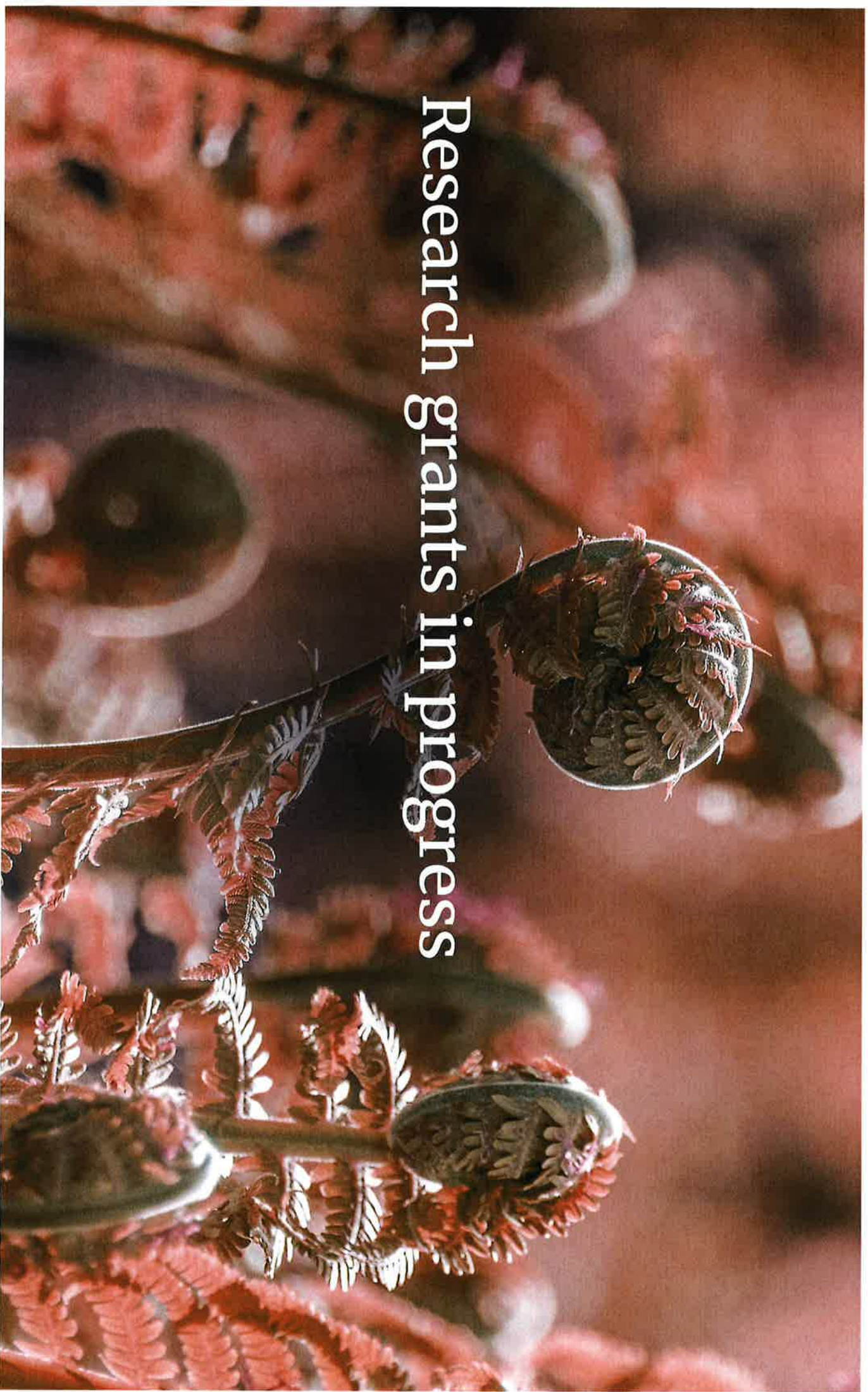
DMT spending per region Research grants 2020/21



DMT spending per region Community grants 2020/21



Research grants in progress

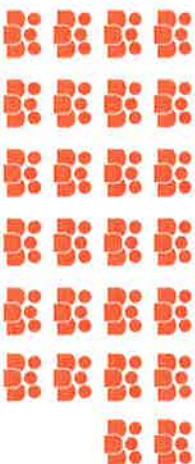


Dissemination

68 awards reported 436 dissemination events to non academic audiences.



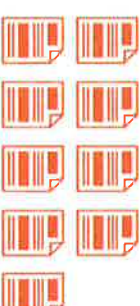
Broadcast e.g. TV/radio/film/
podcast (other than news/press)



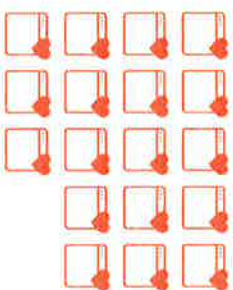
Formal working group,
expert panel or dialogue



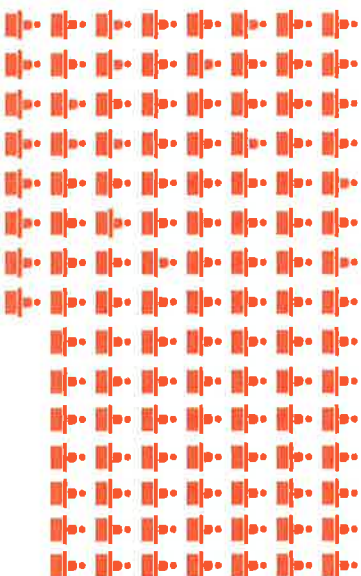
Magazine, newsletter or
online publication



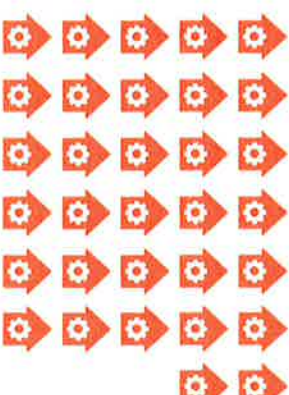
Press release, press
conference or response to
a media enquiry/interview



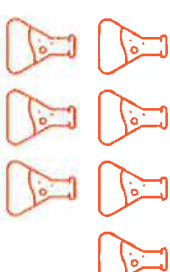
Engagement focused website,
blog or social media channel



Talk or presentation



Participation in an activity,
workshop or similar

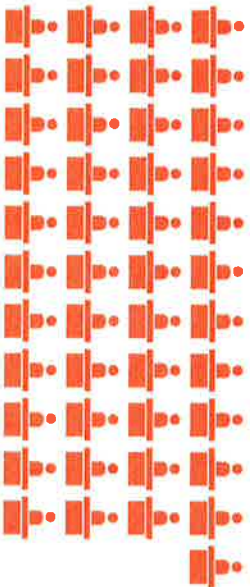


Participation in an open day or
visit at my research institution

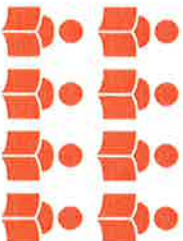
Awards and recognitions

98 prizes or awards were reported from 33 different grants

9 of the 21 early career award-holders making a report this period had won research prizes for their work (some more than one, with 16 prizes in total). Almost half had received international recognition for their work.



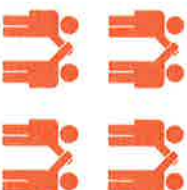
Personally asked as a key note speaker to a conference



Appointed as editor/advisor to journal or book series



Research prizes



Attracted visiting staff or user to your research group



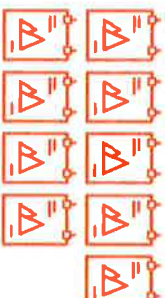
Prestigious/honorary/advisory position to an external body



Medal



Awarded honorary membership, or fellowship, of learned society

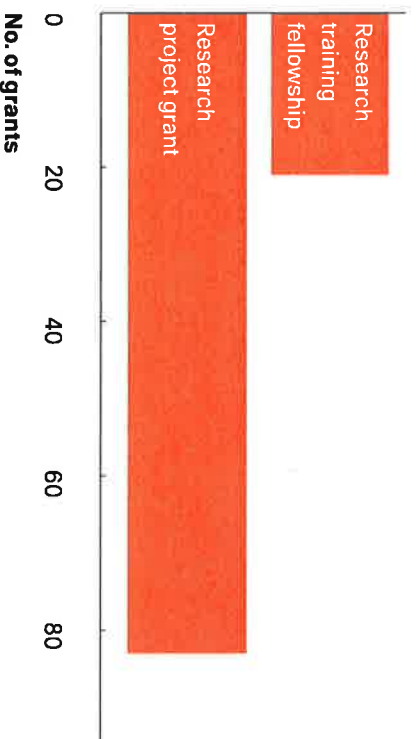


Poster/abstract prize

Active research grant awards

In common with many research organisations and funders, we use Researchfish from Interfolio to gather data on an annual basis from our active award-holders. We do so for the duration of an award and for a minimum of 3 years afterwards.

This report encompasses 104 grants with a value of £17.5M, the first of which was awarded in September 2014 and the most recent in January 2021.

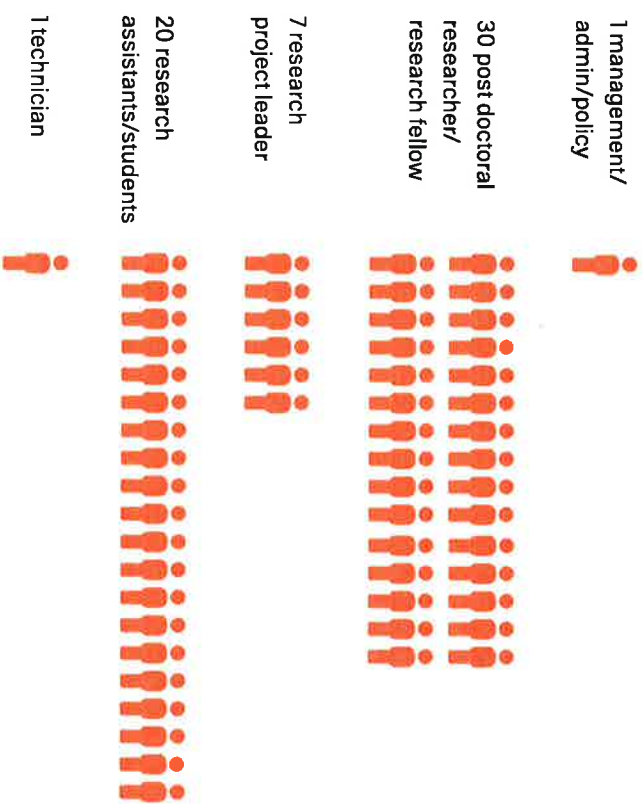


“Support from Dunhill Medical Trust was excellent throughout...”

Dr Bernadette McGuinness, Queen's University Belfast, Research

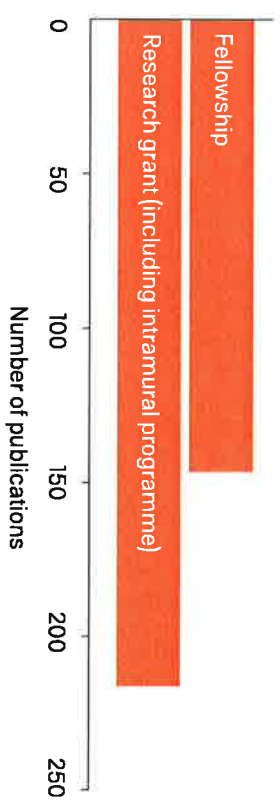
Developing research capacity

One of our strategic priorities is to improve and sustain capacity in age-related research. 66 award-holders reported a member of the team moving on to a new role following completion of the funded project, of which 56 remained active in research. Three quarters of those remained in ageing-related research.



Publications

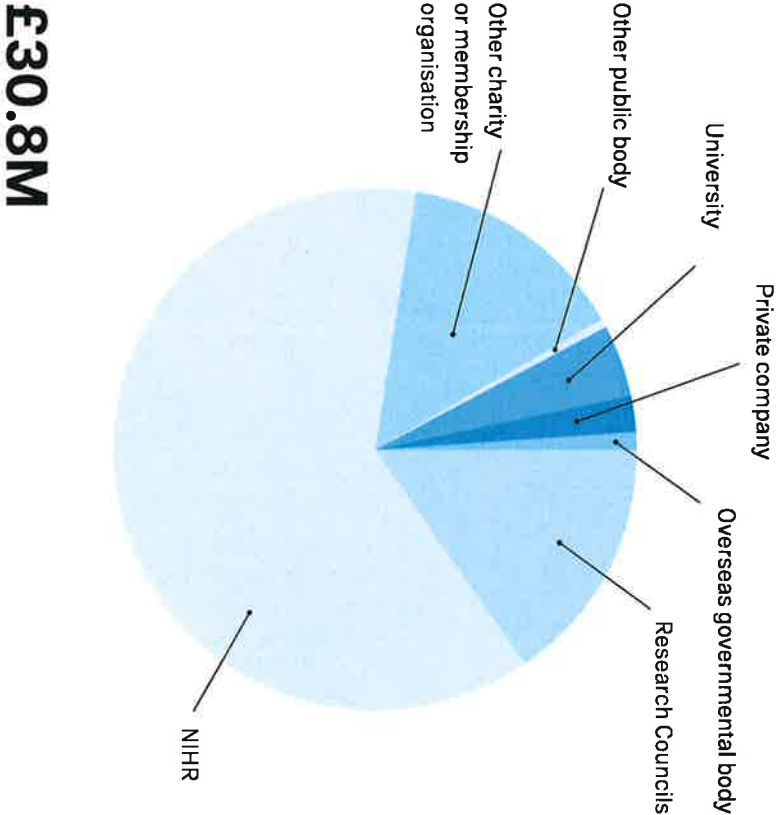
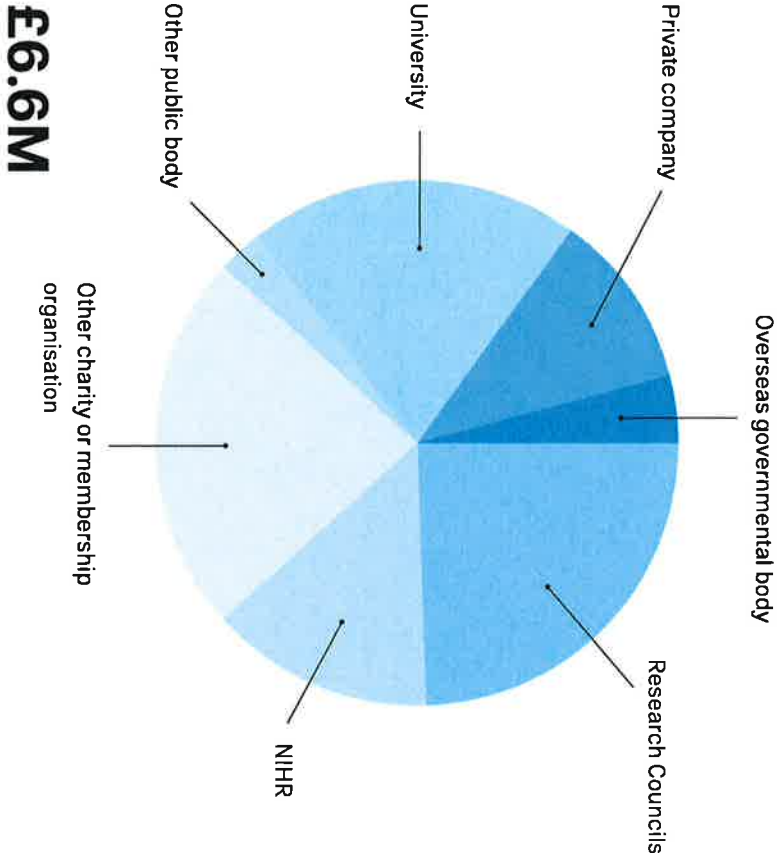
A total of 352 publications were reported with the 21 early career fellows reporting a total of 136 publications



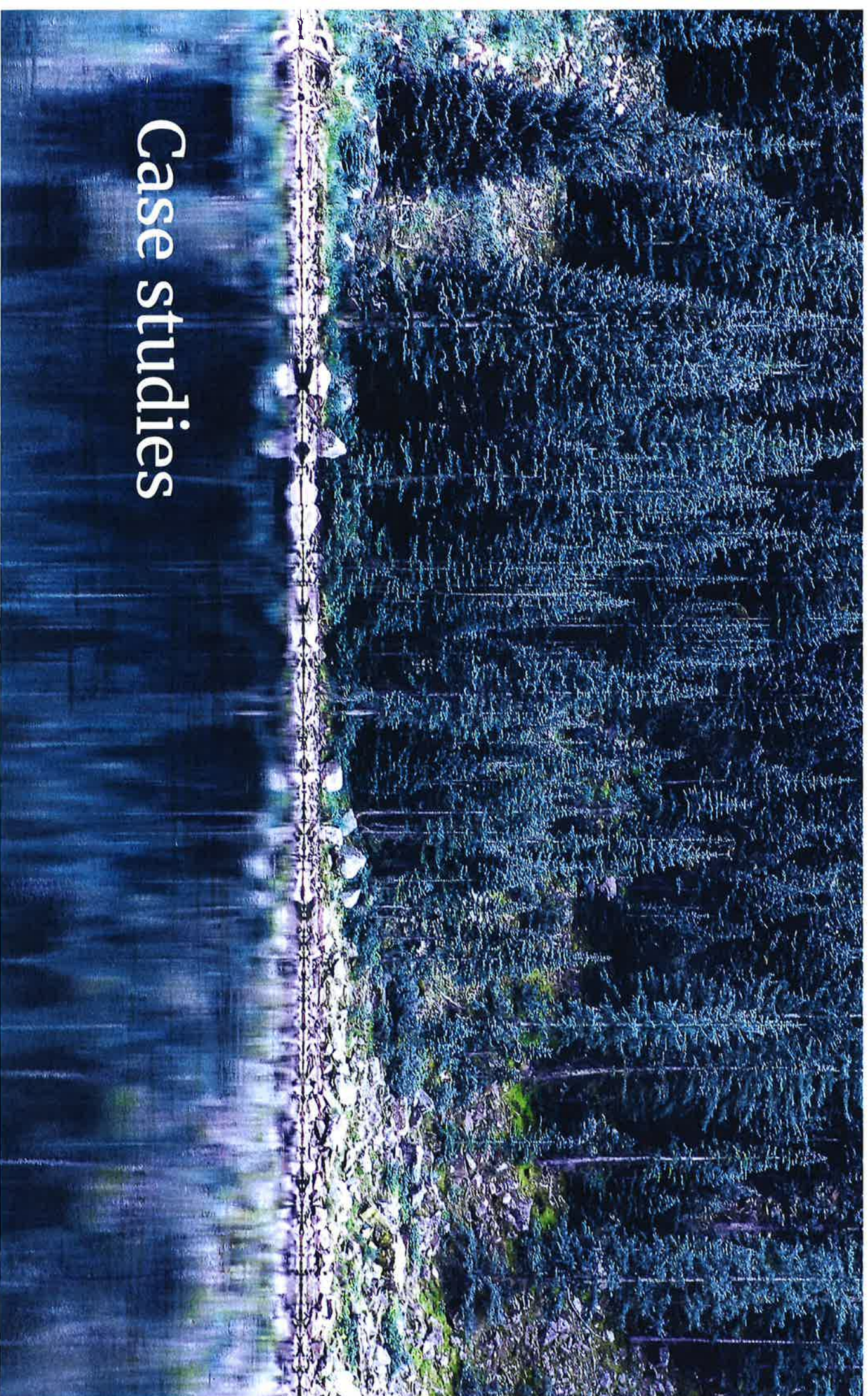
Source: Researchfish

Further funding

22 award-holders who had had grants with an initial award value of £5.5M reported that they had attracted a further £6.6M to develop their own work further, and that their Dunhill Medical Trust-funded work had contributed to larger awards led by other teams totalling £30.8M.



Case studies





“None of this would have been possible without the Dunhill Medical Trust’s support. It was a relatively modest grant, but if we hadn’t had the money from them to move our research forward I don’t think we would be where we are today.”

Professor Lorna Harries, University of Exeter

CASE STUDY 1: SPIN-OUT COMPANY

Turning back the clock: Uncovering new therapies for age-related diseases

A chance discovery in the lab led Professor Lorna Harries and her team to an exciting new way to rejuvenate cells. Based on the results from this early work funded by the Dunhill Medical Trust, she’s now set up a company to develop and test potential anti-ageing therapies.

When we talk about ageing, people often highlight the external signs. But there’s plenty more going on inside our bodies as we get older.

Worn-out senescent cells accumulate within our tissues, pumping out inflammatory chemicals – a phenomenon known as SASP (Senescence-associated secretory phenotype). In turn, these chemicals are thought to alter how cells function, triggering conditions of ageing such as heart disease, lung fibrosis or osteoarthritis.

Around ten years ago we discovered that an important group of around 150 genes known as splicing factors are dysregulated as we age. Splicing factors encode molecules that enable cells to

switch between making different versions of the same gene, a bit like switching between making a chocolate and a vanilla version of the same cake recipe.

We suspected that there might be a connection between SASP and splicing factors in ageing, so in 2013 we applied to the DMT for a research grant in order to investigate further.

An accidental discovery

The main aims of the grant were to see how the SASP chemicals secreted by senescent cells affected splicing factors, and whether this was associated with the harmful changes we see during ageing.

As part of our experiments, a post-doc in the lab – Dr Eva Latorre – was testing what happened when she put certain molecules that were meant to interfere with splicing factors onto senescent cells. Incredibly, she found that the cells had rejuvenated – a completely unexpected finding! By serendipity we had discovered a new cause of cellular ageing that we could drug to make cells rejuvenate, so we went after it.

We also started looking in different tissues that are affected by ageing, such as heart muscle and blood vessels, which lead to heart disease, and astrocyte brain cells, which are implicated in dementia. Again, we saw that splicing factors were dysregulated, with people who go on to develop heart disease or dementia

having lower levels of these molecules than those who don't.

It was a long journey to publish our findings. We ended up going to many different journals, as at the time it was widely believed that senescent cells couldn't be rejuvenated. Eventually our paper came out on a Friday afternoon, and by Monday morning we had interest from potential investors. I was just excited we found a new mechanism for ageing. It never occurred to me that it would be of interest to anyone beyond the ageing research community.

Translating discoveries into therapies

In order to turn this knowledge into anti-ageing therapies that could benefit patients, we set up a company, SENISCA. By March 2021 we had secured £1.3 million to fund the next phase of research, as well as patenting our discoveries in seven international territories.

Our approach is to use short stretches of DNA, known as oligonucleotides, to manipulate the levels of splicing factors, or individual splicing events, inside cells and reverse senescence. The first diseases we're targeting include idiopathic pulmonary fibrosis – a type of lung disease – as well as osteoarthritis and age-related macular degeneration. Our hope is that one day we will have viable treatments that can cure these devastating diseases of ageing.

As a scientist you hope that your discoveries are going to

contribute to the greater good in some way at some point, but I never believed I'd be the co-founder of a company and we'd be looking at having treatments in the clinic within my career.

The support and flexibility of the DMT has been vital to the success of this project on the long and winding journey from the lab bench towards the patient bedside. Science evolves and the things you think will be interesting when you start aren't necessarily where you end up, so I am thankful to the DMT for putting faith into the project.

None of this would have been possible without DMT's support. It was a relatively modest grant, but if we hadn't had the money from them to move our research forward I don't think we'd be where we are today.

Find out more

You can read more about [SENISCA](#) and the investment secured for its [pioneering anti-ageing technology](#).

“I was just excited that we'd found a new mechanism for ageing. It never occurred to me that it would be of interest to anyone beyond the ageing research community.”

Professor Lorna Harries, University of Exeter

CASE STUDY 2: IP AND THERAPEUTICS

Dr Aileen Crawford, University of Sheffield

Medical device to promote regeneration of articular cartilage and bone in chondral or osteochondral lesions caused by trauma and early osteoarthritis

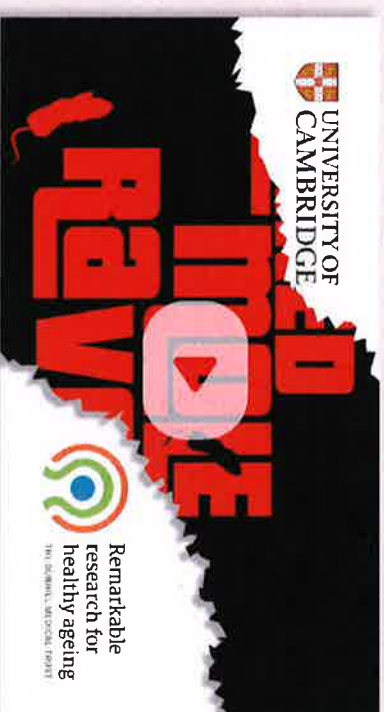
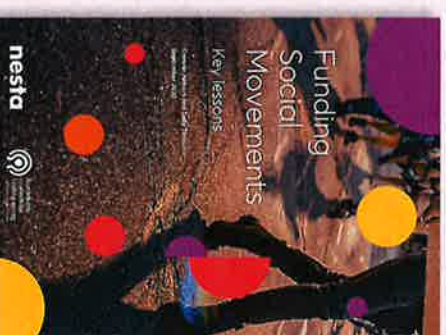
We are developing a novel medical implant designed to stimulate the joint surface cartilage to heal itself. Our implant is designed to attract the body's own stem cells into the damaged cartilage and then stimulate them to develop into cartilage cells that can make new cartilage tissue which will gradually replace the original implant. The medical device is biofunctionalised and contains bioactive homing and chondrogenic factors held in the implant in the same way as found in native cartilage. The initial medical device was designed to be implanted only into a chondral defect. Our early studies showed that the healing properties of the prototype implant are exceptional but suffered from mechanical deficiencies and required suturing in place which is technical demanding and time-consuming. We have fabricated an osteochondral medical device. This improved implant is made up of two parts: an upper part which stimulates cartilage healing and a lower part which is made of a material that mimics natural bone to 'anchor' the implant in position. The implant is designed to be surgically placed into a defective area of cartilage with the lower 'anchoring' portion inserted into the underlying bone. The chondral portion is biofunctionalized using the same technology

as the original medical device design. This device is about to undergo a pre-clinical evaluation *in vivo* in sheep.

Patent granted in US. Awaiting outcome from European Patent Office

The granted US patent relates to a cell-free, multi-layered medical device having bespoke multifunctional bioactivity for the purpose of regeneration of skeletal tissues. The medical device may actively promote homing of stem cells into the medical device and promote their differentiation into the required cell type and promote *de-novo* tissue formation. The medical device can be used to promote healing and regeneration of skeletal tissues, for example, meniscal cartilage, tendon and ligament tissues and also healing of bone tissue indications such as fracture.

Work we have supported during 2020/21



Dunhill Medical Trust

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dunhillmedical.org.uk