



Medical Research Scotland
63rd Annual Report and Financial Statements
2016-17

*Medical Research Scotland is the operational name
of the Scottish Hospital Endowments Research Trust (SHERT)
Recognised in Scotland as a charity with Scottish Charity No. SC014959*

Medical Research Scotland

As Scotland's largest independent charity funder of medical research, Medical Research Scotland is committed to:

- supporting people in the early stages of their careers in biomedical research in Scotland
- supporting only the highest-quality clinical and laboratory-based research, which is aimed at improving understanding of the basic mechanisms of disease processes; or the diagnosis, treatment or prevention of disease; or the advancement of medical technology.

PATRON

HRH The Princess Royal

MEMBERS

The following served as Members during the year:

Professor Philip Winn, BA, PhD, FRSB, FAPS, SRPharmS

Professor Andrew H Baker, BSc, PhD, FAHA, FESC, FRSE

Professor John R Brown, CBE, BSc, PhD, MBA, FRSE

Professor Bernard A Conway, BSc, PhD

*Mr Brian Duffin, MA, FFA, CCMi

Mr Scott Johnstone, BEng(Hons), MBA, CEng, FIET FIMechE

*Professor Walter Nimmo, CBE, BSc, MD, FRCP, FRCA, FANZCA, FRSE (retired on 17th March 2017)

*Mr Graham Paterson, MBA, FCCA

Professor Jennifer M Woof BSc, PhD, FHEA, FRSB

Professor Andrea Nolan OBE, FRSE, MRCVS

*Mr Barry Rose, BSc

*Mr Alasdair Gill, BEng, FIA (from 9th June 2017)

** Denotes membership of the Audit & Investment Sub-Committee*

PRINCIPAL ADDRESS

Princes Exchange, 1 Earl Grey Street, Edinburgh EH3 9EE

SECRETARIES

Turcan Connell, Princes Exchange, 1 Earl Grey Street, Edinburgh EH3 9EE

SCIENTIFIC ADVISER

Dr Alex M Graham, PhD

AUDITOR

Scott-Moncrieff, Exchange Place 3, Semple Street, Edinburgh EH3 8BL

INVESTMENT MANAGER

Martin Currie Investment Management Ltd, Saltire Court, 20 Castle Terrace, Edinburgh EH1 2ES

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BUCKINGHAM PALACE

As Patron, it gives me pleasure to see Medical Research Scotland continue to prosper which it has done by carefully considering its role and developing its mission. Medical Research Scotland's scientists all work collaboratively in Universities and industry, minimizing the gap between the two. The work that is supported is intended to have a high impact, developing new drugs, medical devices and diagnostic tools to benefit healthcare globally.

But the biggest direct impact that Medical Research Scotland has is in its support for both undergraduate and postgraduate students. This helps supports the individuals concerned and develops a sound base for Scotland's knowledge economy. Collaboration with the excellent Daphne Jackson Trust, supporting scientists returning to the laboratory after a career break, helps maintain careers, while on the other side, outreach to secondary schools gives those choosing their career paths valuable insights into the exciting possibilities a career in research offers.

I am pleased to note that the Board of Medical Research Scotland remains alive to the need to grow and improve, and that they are actively developing their online presence, which has obvious importance to the way we live and work now. I wish Medical Research Scotland every success in its continuing mission to promote excellent research and develop the careers of talented scientists.

HRH The Princess Royal

Chairman's Report

Continuity and change: the mission of Medical Research Scotland remains focused on helping scientists early in their career develop in ways that will bring benefit to themselves, their institutions and to Scotland's commercial life science sector. But continuity is not the same as stationary, just doing the same year on year so, as must any organization, we always look to improve.

Our programmes have not changed. We support students undertaking doctoral degrees, fostering collaborations between Universities and industry that stimulate research with impact and give students insight into different career opportunities. In addition, recognizing that a career break is often necessary – life is more than careers – we are committed to our relationship with the Daphne Jackson Trust, supporting scientists coming back to research after a break. As well as this, we help undergraduates explore life as a full-time researcher through the award of Vacation Scholarships, allowing them to spend time in the summer working in academic laboratories. The numbers of applicants for these awards remains high, indicating a strong demand for these experiences.

Even more developmentally, we have outreach into secondary schools to show school students that a career in research is achievable and exciting. In 2017 we had two well attended "Meet the Researcher Showcase" events, at the Dundee and Glasgow Science Centres. These events really show who we are. They present research from a wide range of disciplines – life and physical sciences, health sciences, mathematics, computer science, engineering, all with an industrial partner – letting students see that medical research is not a narrow and closed-off programme but a broadly based one. Critically, it is our PhD students, Vacation Scholars and Daphne Jackson Fellows who pitch to school students, making abundantly clear that science is a youthful, creative, exciting endeavour, and one that they can join in.

All this continues our work. Change has come in membership of the Board of Trustees – Mr Barry Rose joined us – and in our operations. We have begun a major revision of our website and social media presence, and we are creating for the first time online submission procedures. All of this will be of benefit to anyone who follows us, to scientists submitting applications and to our support staff, whose work will be much more on screen, creating time for more interesting work than managing paper forms. This is a major undertaking that should be of huge benefit to everyone engaged with Medical Research Scotland.

Financially, we remain secure, with strong forward projections. Nevertheless, receiving income is always welcome and during the year, funds were received through donations from individuals, legacies and trust giving. All donations are acknowledged individually and highlighted on our website.

Despite the strange times in which we live – such turbulent political life – the Board of Medical Research Scotland is not complacent or disturbed. Rather, we are confident. Confident in the value of our mission, confident in our management, and confident in our focused approaches to encouraging and supporting developing scientists.

Professor Philip Winn
Chairman

Trustees' Report

The Trustees present their report along with the Financial Statements of the Trust for the year ended 31st March 2017. The Financial Statements have been prepared in accordance with the accounting policies set out in Note 1 to the Financial Statements and comply with the Trust's constitutive legislation the Charities and Trustee Investment (Scotland) Act 2005, the Charities Accounts (Scotland) Regulations 2006 (as amended) and the Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their financial statements in accordance with the Financial Reporting Standard 102 applicable in the UK and Republic of Ireland (FRS 102) published on 16th July 2014 (as amended).

Objectives and Activities

The objectives of the Trust are to:

- Receive and hold endowments, donations and bequests;
- Awarding funding from these to promote medical research in Scotland;
- Engage in fundraising activities for the purposes of the Trust;
- Develop and exploit ideas and exploit intellectual property.

The Trust aims to improve health standards by funding research of the highest quality into the cause, diagnosis, treatment and prevention of all forms of illness and genetic disorders, and into the advancement of medical technology.

The Trust fulfils its objectives by providing a range of opportunities to support and encourage research-minded individuals to pursue high-calibre research in biomedicine, independently or in collaboration with colleagues in their own or other universities, major hospitals and research units in Scotland, or with trading companies operating in healthcare-related fields. Through its short Undergraduate Vacation Scholarships, commercially-linked PhD Studentships and its support of part-time Daphne Jackson Trust Fellowships, the Trust offers provision for biomedical researchers. The awards help to prepare the recipient researchers for a career, or return to a career, in academia or the health-related commercial sector.

Grant-making Policy

The Trust aims to support research of the highest quality. It has a rigorous system of assessment of funding applications before they reach Trustees.

Funding decisions for the PhD Studentship awards are taken in a two-stage process. Applications, detailing a defined research project, are subject to expert peer review by members of the specially-appointed PhD Studentship Panel, who are first provided (by the Scientific Adviser) with sufficient information about each to enable them to declare any possible conflict of interest in any application. The Panel members then review the applications independently and their reports are subsequently considered by all the Panel members meeting in committee. Recommendations for funding are then made to the Trustees, who take the final decisions. Those accepting the offer of funding then select appropriately highly-motivated and qualified students following advertisement and interview by a group comprising the academic institution and representatives from both the company and the Trust. Following appointment of suitable students, recipients of PhD awards must submit annual reports providing information about progress on both the academic and company aspects of the award. These are scored by the scientific Trustees to ensure that the work is progressing satisfactorily before payment of subsequent years' fees is made.

Vacation Scholarship applications are reviewed separately and independently by the scientific and medical Trustees, who make recommendations to the Trustees. The final

funding decisions are taken by all the Trustees in light of those recommendations and available funds. After completion of the Vacation Scholarship, a short report is required from the award holder and the student. These reports are reviewed by all the Trustees.

All continuing project award holders are required to submit progress and final reports and also a post-completion report. Progress and final reports are scored by the scientific trustees and any found to be unsatisfactory are followed up. The purpose of the post-completion check is to assess the award holder's subsequent progress and what publications and possible intellectual property exploitation may flow from a project which the Trust has supported. An annual report is also received from the Intellectual Property Manager of each administering institution in respect of each project awarded.

The Trust also sponsors a number of Daphne Jackson Trust Fellowships with Trustees participating in the funding decisions taken by the Daphne Jackson Trust. Progress reports are received by the Trust from recipients of these Fellowships on a six monthly basis.

Funding Awarded

During the 2016-17 Financial Year the Trustees awarded a total of 11 PhD Studentships (15 in 2015-16) and 75 Undergraduate Vacation Research Scholarships (48 in 2015-16). The topics of the PhD Studentships cover a wide range including multiple sclerosis, cancer, rheumatoid arthritis, gastrointestinal disease, heart disease and bone augmentation, many having drug development as their primary focus. Vacation Scholarships were held at the following universities:- Aberdeen, Dundee, Edinburgh, Glasgow, Glasgow Caledonian, Heriot-Watt, St Andrews, Strathclyde and West of Scotland. Further information about all the awards formally accepted can be found on the Trust's website: www.medicalresearchscotland.org.uk. The total value of the funding awarded amounted to £1,562,790.

Achievements and Performance

The Trust's **Annual Plan** for 2016-17 and performance against it are summarised as follows:

1. To continue to raise awareness of the Trust and particularly its new funding strategy within the academic and business communities in Scotland, seeking to ensure appropriately high-quality applications.

The availability of the PhD Studentships and Vacation Scholarships was widely circulated among the academic and commercial biomedical sectors. The number and quality of the applications received suggest these continue to be increasingly popular and competitive.

2. To review the PhD Studentship and Undergraduate Vacation Research Scholarship Award process and criteria.

The Trustees reviewed the criteria for appointment of Students and it was confirmed during the period that the Medical Research Scotland eligibility criteria will be tailored to the individual project, but the Trustees of Medical Research Scotland expect students to have been awarded a minimum of an upper second class undergraduate honours degree in a relevant subject.

3. To make up to 15 PhD Studentship Awards for suitably high-quality, relevant projects submitted by university/industry collaborations, to make funds available for up to 100 Undergraduate Vacation Research Scholarships and also to seek to appoint up to

three Daphne Jackson Fellowships for those seeking to return to biomedical research following a career break.

11 PhD Studentships and 75 Undergraduate Vacation Research Scholarships were awarded. The Trustees agreed to support three Daphne Jackson Trust Fellowship awards (three were offered and one withdrew).

4. To develop marketing opportunities in relation to schools events and/or Science Festivals.

Two successful Meet the Researcher Showcase events were held at Dundee Science Centre and Glasgow Science Centre on 28th February and 1st March 2017 respectively. Over 150 pupils and their teachers from schools in Aberdeenshire, Edinburgh, Dumfriesshire, Dundee, Fife, Glasgow, Lanarkshire and Perthshire attended, with over 60% of the pupils saying the event had influenced their career plans. Over the two events, the pupils and teachers enjoyed careers talks from Professor David Harrison, John Reid Chair of Pathology, University of St Andrews; Dr Morag McFarlane, CEO Tissue Solutions Ltd; Dr Chris Carter, Senior Lecturer, University of Strathclyde; and Dr Lynsey Howard, Lead Scientist, Lamellar Biomedical Ltd. Malaria, osteoporosis, cancer, lung and kidney disease were just some of the areas of medical research which the pupils had the opportunity to discuss with Medical Research Scotland-funded scientists, who were presenting their work. As well as speaking to the scientists, pupils also engaged with exhibitors who used innovative and fun ways to relay research on parasites, viruses, cancer, dementia and endoscopes from the Universities of Dundee, Glasgow and Strathclyde, the University of Aberdeen's Marine Biodiscovery Centre, the Institute for Medical Science and Technology (IMSaT), the Cancer Research UK Beatson Institute and TC BioPharm Ltd

5. To keep under review the membership of the Trust in light of retirements and resignations and the need to ensure that there is the appropriate breadth of expertise needed for the continued good governance of the Trust.

During the period, one Trustee retired.

6. To review the Trust's services in line with the agreed timetable.

The Trustees reviewed the appointment of Investment Managers and agreed to reappoint them.

7. To continue to keep under close review the Trust's investment portfolio and, in particular, its income.

The asset allocation of the portfolio was reviewed in detail by the Trust's Audit & Investment Committee in consultation with the Trust's Investment Managers.

8. To have the Trust's Annual Report & Financial Statements printed and available from its website during 2016.

The 2015/16 Annual Report & Financial Statements was printed on 28th October 2016 and is available on the Trust's website.

9. To engage with student and supervisors possibly through establishing an advisory board.

The chairman has engaged with students at the commercial training day at Murrayshall, to gain their feedback on the charity. The feedback will be reviewed and areas of change will be identified going forward. In particular, the time taken for the application process to complete and the relationship with industry.

Financial Review

The Trust can only spend income and it is therefore reliant on the income from its investments, and also on legacies, donations and royalties. The annual investment income is supplemented by an Income Investment Fund which was created at a time when there was a surplus of income. Income generated on the investment portfolio and related cash deposits was £1,122,847 during the year which includes accumulated income, compared with £1,197,993 in 2015-16 and royalties were £133,958 compared with £112,204.

Investment Policy and Performance

The remit given to the Trust's investment manager, Martin Currie Investment Management Limited, is to manage the fund conservatively with the objective of maintaining the real value of income whilst protecting capital growth. The investment manager may invest in UK and Foreign Equities, Fixed Interest Securities, Regulated Collective Investment Schemes managed by an associate of Martin Currie and Investment Trusts managed within Martin Currie or elsewhere.

The Investment Manager is prohibited from investing directly in the tobacco sector and in stocks exposed to the production of alcohol. The Investment Manager reports to the Members in writing four times a year, provides monthly statements to the members of the Audit & Investment sub-committee and reports in person at meetings on a regular basis. The benchmark selected, against which performance is monitored and reported on in writing and at meetings, comprises 60% FTSE All Share, 20% MSCI Emerging Markets Index and 20% MSCI AC World [Net].

The year under review was a positive one for equity markets with returns for UK based investors boosted by the weakness of the pound in the aftermath of the BREXIT vote. The total return on the Trust's overall portfolio was 26.0%, marginally behind the return on the benchmark of 26.8%. The core UK equity portfolio delivered a 20.7% return, behind the FTSE All Share Index over the period which returned almost 22%. Exposure to overseas assets through the Martin Currie Global Equity Income Fund and the Martin Currie Global Emerging Markets Fund boosted returns, for the aforementioned reason. The Emerging Markets fund had a particularly strong year delivering a return of 42.3%, well ahead of its benchmark. As at 31st March 2017, the value of the Trust's investment portfolio (including capital cash) was £39,607,618, compared with £32,481,921 at 31st March 2016 and a value as at 27th October 2017 of £41,704,321 an increase of £7,125,697 and an increase of £2,096,703 respectively.

Environmental, Social and Corporate Governance

Environmental, Social and Corporate Governance (ESG) refer to the three central factors in measuring the sustainability and ethical impact of an investment in a company or business. The Trustees have given consideration to ESG and the Trust's investment manager is actively engaged in this.

Reserves Policy

Under the National Health Service (Scotland) Act 1978 it is the duty of the Trust to hold and administer funds on Trust for the purpose of assisting the conduct of research into