

**THE LISTER INSTITUTE OF PREVENTIVE MEDICINE**

PO Box 1083, Bushey, Hertfordshire WD23 9AG

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**ANNUAL REPORT AND FINANCIAL STATEMENTS**

for the year ended 31 December

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**2011**



The Lister Institute of Preventive Medicine  
is a company limited by guarantee (*England 34479*)  
and a registered charity (*206271*)

The Institute was founded in 1891 and for the next 80 years played a vital role in the development of the laboratory aspects of preventive medicine as an independent research institute in the UK.

Financial pressures in the 1970s led to the closure of the research and production facilities and the conversion of the Lister Institute into a highly successful trust awarding prestigious Research Fellowships from 1982 which in 2003, again because of financial pressures, were revised to become Prize Fellowships.

The cover portrait of Lord Lister reproduced by courtesy of the Royal Veterinary College

## LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2011

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### THE GOVERNING BODY

Dame Bridget M Ogilvie, DBE, AC, ScD, FMedSci, FRS, *Chairman (Retired 9 September 2011)*

Professor Sir Alex Markham, DSc, FRCP, FRCPath, FMedSci, *Chairman (From 9 September 2011)*

Mr Michael French, BSc (Eng), FCA, *Hon Treasurer*

Professor Janet Darbyshire, CBE, FRCP, FFPH, FMedSci *(Appointed 1 December 2011)*

Professor Dame Kay Davies, CBE, DBE, MA, DPhil, FMedSci, FRCP (Hon), FRCPath, FRS,  
*(Appointed 1 December 2011)*

Hon Rory M B Guinness

Professor Douglas Higgs, MB, BS, MRCP, MRCPath, DSc, FRCP, FRCPath *(Appointed 9 September 2011)*

Mr Andrew Hutton, MA

Professor Robin F Irvine, FIBiol, FMedSci, FRS

Professor Sir Alec J Jeffreys, DPhil, FMedSci, FRS

Professor Tony Minson, PhD

Professor Peter Ratcliffe, FMedSci, FRS *(Retired 9 September 2011)*

Mr John G Rhodes, MA

Professor Geoffrey L Smith, PhD, FMedSci, FRS

Professor Cheryll A Tickle, CBE, FRSE, FMedSci, FRS

### SENIOR MANAGEMENT

*Secretary and Director:* Dr Trevor A Hince, PhD

#### *Business Address*

PO Box 1083

Bushey

Hertfordshire WD23 9AG

#### *Solicitors*

Macfarlanes

20 Cursitor Street

London EC4A 1LT

#### *Bankers*

Messrs Coutts & Co

St Martins Office

440 Strand

London WC2R 0QS

#### *Auditors*

PricewaterhouseCoopers LLP

1 Embankment Place

London WC2N 6RH

#### *Registered Office*

Macfarlanes

10 Norwich Street

London EC4A 1BD

#### *Investment Advisors*

Schroders & Co Limited

100 Wood Street

London EC2V 7ER

#### *Partners Capital LLP*

5 Young Street

London W8 5EH

*Website:* [www.lister-institute.org.uk](http://www.lister-institute.org.uk)

*Telephone:* 01923 801886

## LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2011

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### THE SCIENTIFIC ADVISORY COMMITTEE

Professor Robin F Irvine, FIBiol, FMedSci, FRS, *Chairman*

Professor Wendy Bickmore, BA, PhD, FMedSci, FRSE

Professor Tim Bliss, FMedSci, FRS

Professor Mary Collins, PhD, FMedSci

Professor David Holden, FMedSci, FRS

Dr David Ish-Horowicz, PhD, FRS

Professor J Simon Kroll, FRCP, FMedSci, FRCPCH

Professor Irene Leigh, OBE, MD, FRCP, FMedSci

Professor Patrick Maxwell, FMedSci

Professor David W Rice, MA, DPhil (*Retired 9 September 2011*)

Professor Jonathan Walcho, BSc, PhD (*Appointed 9 September 2011*)

*Secretary:* Dr Trevor A Hince, PhD

### THE FINANCE AND INVESTMENT COMMITTEE

Mr Michael French, BSc (Eng), FCA, *Chairman*

Hon Rory M B Guinness

Mr Andrew Hutton, MA

Professor Sir Alex Markham, DSc, FRCP, FRCPath, FMedSci

Professor Tony Minson, PhD

Dame Bridget M Ogilvie, DBE, AC, ScD, FMedSci, FRS (*Retired 9 September 2011*)

Mr John G Rhodes, MA

*Secretary:* Dr Trevor A Hince, PhD

## CHAIRMAN'S ANNUAL REPORT

for the year ended 31 December 2011

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THIS IS MY FIRST REPORT as Chairman and it is entirely fitting that I should start it by paying tribute to my predecessor Dame Bridget Ogilvie. Thanks to her stewardship and vision over the last nine years, the Institute has launched its very successful Prize Fellowship scheme, and latterly introduced a popular Summer Studentship programme. This has been achieved from an initial difficult financial position and during periods of major stock market weakness and economic turmoil. It has necessitated some hard decisions such as the closure of long-standing funding schemes and the restructuring of the Institute's administration. The Lister should be very grateful that it had Dame Bridget at the helm to help formulate and guide these major changes. On behalf of the Institute I should like to express our very sincere thanks and gratitude. However, as the new Chairman, this makes Dame Bridget a very hard act to follow!

Much of what is reviewed here took place before I took over the Chairmanship in September 2011 so, in every sense, this is a joint report from Dame Bridget and myself. In investment terms the year was very 'up and down' with slight gains in quarters one and two followed by a fall in quarter three and only a slight recovery in the last quarter such that overall, the value of the Institute's investment portfolio fell to £31.8m. Nevertheless the Institute awarded three Prize Fellowships, each of £200,000, and introduced the Summer Studentship scheme. This proved to be very successful and much appreciated by the Fellowship who were able to recruit some very able undergraduates to work in their laboratories for periods of up to ten weeks. The reports and the personal statements from the students indicate that many worthwhile projects were undertaken and that for several of the students the experience cemented their thoughts about going on to do a PhD after graduation. The scheme was run without undue administrative burden on the recipients and in a way that enabled them to make offers to good students early in the academic year. Whilst this is only the first year of a three-year trial period it can be considered to have been very successful so far.

The Institute's website has been expanded to indicate those Fellows who are willing to give talks in schools, to enable the schools to identify possible speakers in their areas and make contact with them. This aspect of 'outreach' is particularly important, but it is hard to know the extent to which it is being taken up and more work needs to be done in making schools aware that this opportunity exists to hear from world-leading researchers. It is also intended that during next year the website generally will undergo a 'face-lift' to become more interactive and provide more information on some of our Prize Fellows.

## **Governing Body and Administrative Matters**

### **Governing Body and Administration**

The revision of the Institute's Articles of Association was completed and the new Articles unanimously adopted by the membership at the AGM. This was an important piece of work and now provides the Institute with an up-to-date set of Articles, which reflect modern legislation, the Institute's current structure and the way we operate. I should like to thank Macfarlanes for their professional advice together with John Rhodes and Trevor Hince for spearheading this project for the Lister Institute.

Having served on the Governing Body for a year, I now appreciate how committed all of its members are and the thought that they give to overseeing the Institute's affairs – it is a great comfort to a new Chairman to have the support of such a wise body of people! The new Articles allow for a small expansion in the number of appointed members and this will enable the Institute to gain particular professional expertise when it needs it. One of the most pleasing aspects of the new Articles is that they allow the Lister to acknowledge formally Professor Sir Alec Jeffreys' outstanding contributions to the Institute and UK bioscience in general by making him a 'Life-member' of the Governing Body. This also ensures that we retain his expertise! However, it is important that there is turnover of Trustees and this year we have had to bid a sad farewell to Professor Peter Ratcliffe and, of course, Dame Bridget Ogilvie herself. In their stead we are very pleased to welcome Professor Janet Darbyshire, Professor Dame Kay Davies and Professor Douglas Higgs, and hope that they will enjoy their association with the Institute. The Governing Body meets twice a year, once in London and again prior to the AGM and Fellows' meeting in Cambridge. This latter meeting is followed by a dinner at which wider issues and future plans for the Institute can be explored in a more informal setting.

I am pleased to report that the administrative costs of the Institute have again come in below budget, yet the quality of service to the Institute remains as high as ever and for this I and the Governing Body are very grateful to Trevor Hince and his team of Naomi King and Jacky Wilson.

### **Institute Membership**

Two Prize Fellows, Dr Fiona Gribble and Professor Daan van Aalten, who completed their fellowships in 2011 have been welcomed into membership.

## Financial Matters

As I reported earlier, it was a roller-coaster year for the Institute's investment portfolio, which overall returned a loss, finishing the year at £31.8m, having started 2011 at £33.34m. Notwithstanding this, the Institute was able to award three Prize Fellowships, totalling £600,000 and initiate the Summer Studentship scheme at a cost of £42,000. In a year of such market fluctuation it has been important to maintain close contact with our investment advisors, Partners Capital and Schroders Charities, and the Institute is indebted for the scrutiny to which the Finance and Investment Committee, under the Chairmanship of Michael French, have subjected them. There have been several detailed discussions with our advisors, particularly about our investment strategies and expectations, as markets and global economies have reacted to the various crises through the year. Overall the view was that both sets of advisors had performed reasonably well in difficult circumstances and broadly in line with their predictions. It was felt that having Partners Capital and Schroders, with their different styles and investment philosophies, had benefited the Institute. However, the Institute is very much aware that markets remain very volatile and that poor or negative economic growth both nationally and globally may limit future performance. Consequently, our expenditures must be kept under close review.

## Scientific Activities

### Scientific Advisory Committee

The Institute has now reached the milestone of appointing its 25th Prize Fellow and the quality of the winners and their research remains as high as ever. The number of applications, at around 50 per year, indicates that there is still great interest in the scheme. This is particularly important since any funding scheme must be fulfilling a useful role and it is a great tribute to the initiators of the Lister Prize Fellowships that the award of unfettered money, enabling a young researcher to spend it in the most productive way for the development of his/her research, remains vital, especially as funding from other agencies becomes tighter and more restrictive. However, the task of selecting the Prize Fellows gets harder each year, particularly the detailed review that is necessary to identify the eight or so candidates who will be interviewed. Whilst members of the Scientific Advisory Committee (SAC) are aided by reports from international experts, their responsibility and workload are enormous. The interviews with the candidates are no less demanding since the areas of science that will be discussed vary greatly, as clearly illustrated by the research topics of this year's winners. However, members of the SAC greatly enjoy the

discussion with the candidates and under the skilled and supportive chairmanship of Robin Irvine the three worthy winners were identified.

The Institute is extremely grateful for the hard work and dedication of Robin Irvine and all members of the SAC, but this year we must express particular thanks to Professor David Rice as he steps down from the committee after completing his term of office. In his place, and also from Sheffield, it is a pleasure to welcome Professor Jonathan Waltho, a former Lister Senior Fellow, to the SAC.

## 2011 Lister Research Prize Fellowship Winners

The recipients of the 2011 Lister Research Prize Fellowships, who each received the award of £200,000, were:

<b>Prize Winner</b>	<b>Title of Research</b>
<b>Dr Victoria Cowling</b> University of Dundee	Regulation and function of the 7-methylguanosine cap
<b>Dr Michael Eddleston</b> University of Edinburgh	Prevention of deaths from late respiratory failure in organo-phosphorus pesticide poisoning
<b>Dr Robert Klose</b> University of Oxford	Biochemical isolation and functional dissection of the CpG island proteome

Lister Research Prize 2011 winners: Dr Michael Eddleston, Dr Victoria Cowling and Dr Robert Klose





## Current and Former Lister Prize Fellows

The following were awarded Lister Research Prize Fellowships during the period of Dame Bridget Ogilvie's chairmanship. This is an outstanding collection of scientists and represents a major contribution to the well-being of UK biomedical research:

<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Dr Nina Balthasar</b> University of Bristol	Identifying the novel CREB coactivator TORC2's role in the hypothalamic pathways controlling energy homeostasis	2007
<b>Dr Oliver Billker</b> The Wellcome Trust Sanger Institute	In search of the xanthurenic acid receptor of malaria parasites—a potential target for transmission control	2004
<b>Dr Nia Bryant</b> University of Glasgow	Using yeast as a model system to understand the insulin-dependent trafficking of GLUT4 in adipocytes	2004
<b>Dr Simon Bullock</b> MRC Laboratory of Molecular Biology, Cambridge	Mechanisms and neuronal functions of motor-driven transport	2008
<b>Dr Juan Burrone</b> Kings College London	The role of neuronal activity during synapse formation	2009
<b>Dr Vincenzo Costanzo</b> Cancer Research UK Clare Hall Laboratories	The role of ATM and ATR in preventing genomic instability	2006
<b>Professor Daniel Davis</b> Imperial College London	Nanotubes and synapses in immune cell communication	2005
<b>Dr Rebecca Fitzgerald</b> MRC Cancer Cell Unit Cambridge	Translational research programme for prevention of oesophageal adenocarcinoma	2008
<b>Dr Holger Gerhardt</b> Cancer Research UK London Research Institute	Endothelial guidance in vascular patterning	2008
<b>Dr Fiona Gribble</b> Cambridge Institute for Medical Research University of Cambridge	Secretion of incretin hormones from the mouse intestine	2006
<b>Dr Andrew Jackson</b> Western General Hospital Edinburgh	Cellular pathways determining human brain size	2009

*Continued overleaf*

<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Dr Josef Kittler</b> University College London	Miro family proteins as regulators of synaptic bio-energetics and a locus for mitochondrial dysfunction in neurological disease	2010
<b>Professor Paul Lehner</b> Cambridge Institute for Medical Research	The role of HSP70 in MHC Class I mediated antigen presentation in human dendritic cells	2004
<b>Dr Juan Martin-Serrano</b> King's College London	Functional parallels between HIV-1 budding and the last step of cell division	2008
<b>Dr Robin May</b> University of Birmingham	The molecular basis of latency and dissemination during cryptococcosis	2010
<b>Professor Kenneth Smith</b> Cambridge Institute for Medical Research University of Cambridge	Control of infection and autoimmunity by an inhibitory Fc receptor FcγRIIb	2007
<b>Dr Grant Stewart</b> University of Birmingham	Investigating the role of the RIDDLE syndrome gene in promoting repair of DNA damage	2009
<b>Professor Tomoyuki Tanaka</b> University of Dundee	Mechanisms of kinetochore-microtubule interaction	2005
<b>Dr Sarah Teichmann</b> MRC Laboratory of Molecular Biology Cambridge	Decoding genetic switches in T helper cell differentiation	2010
<b>Professor Chris Thompson</b> University of Manchester	Identifying and characterising genes that control cell fate choice and social behaviour	2005
<b>Professor Daan van Aalten</b> University of Dundee	Structural mechanisms and specificity of O-GlcNAc signalling in the eukaryotic cell	2006
<b>Dr Fiona Wardle</b> Kings College London	Transcriptional control of mesodermal cell differentiation in vertebrates	2007

## Fellowship Activities

For those attending a Lister Fellows' meeting for the first time, it is unique and uplifting experience with a very different atmosphere from the usual 'scientific' meetings. There is an air of friendship and openness, the mixing of old and new Fellows and a great diversity of scientific topics. This latter point was aptly illustrated by the talks from the three new Prize

Fellows ranging from regulation of oncogene expression, to pesticide poisoning in Africa, and the role of CpG islands in gene regulation. The quality of these talks from the latest members of the 'Lister family' set the benchmark for the rest of the meeting, and the Members and Fellowship enjoyed presentations from:

- Professor Tomoyuki Tanaka – Chromosome acrobatics on the mitotic spindle
- Dr Dawn Coverley – The organization of DNA replication in cancer cells
- Professor Paul Lehner – Viral regulation of cellular proteins
- Dr Tristan Rodriguez – Pathways underlying neural specification in mammals
- Professor David Rice – Uncovering the mechanism of the Vietnam time bomb



Lively discussions amongst the audience between presentations at the Fellows' Meeting

I am pleased to report that numbers attending the meeting were greater than last year, not least I suspect, because of the person giving the Special Lister Lecture. It was therefore with great pleasure that I had the honour of introducing Dame Bridget Ogilvie to give the lecture entitled: "Some thoughts on a life mainly in science". She ranged over her early childhood on a sheep station and her education in Australia; her career as a research scientist in the UK at the National Institute for Medical Research, Mill Hill, working on the immune



Dame Bridget Ogilvie giving the Special Lister Lecture at the Fellows' Meeting

response to parasites; her Directorship of the Wellcome Trust and her philosophy concerning research funding. All this was delivered in her trademark modest, self-effacing style, but what shone through was her particular passion for the issues around women in science and the need for scientists to communicate with the public. The applause and questioning clearly indicated the Institute's respect and warm affection for its former Chairman.

Following the Reception and presentation of 'scrolls' to new Prize Fellows, the Annual Fellows' Dinner proceeded in its traditional style!

## Conclusion

Another very enjoyable and informative introduction to the Institute has been in listening to the Prize Fellows giving seminars in their own departments, hearing how the award has helped them develop their research groups and talking to other members of their departments about the research environment and funding issues. To all of those Fellows and their host institutions, Trevor Hince and I would like to express our thanks for their hospitality and ongoing support of the Fellows.

These occasions have made the importance of the Lister Prize Fellowship award even clearer to me. The flexibility which it gives to young group leaders to bridge positions, bring in particular expertise or obtain essential items of equipment whilst they battle for ever more competitive and restrictive grant funding from other agencies, can often be a life-line for their laboratory. For these reasons it is essential to ensure that the awards go not only to the best young researchers but also where they can be most effective. I have no doubt that this has been the case in the past, but the Institute must ensure that it continues to be so in the future, as funding environments change and pressures on young researchers establishing their own laboratories for the first time change and become less predictable. During the forthcoming year members of the SAC and Governing Body will be discussing the Prize Fellowship scheme, particularly the eligibility criteria, just to ensure that it still targets the appropriate young researchers in circumstances where it can add most value and for whom it has always been intended.



Dr Trevor Hince, Dr Robin May and Professor Sir Alex Markham at Dr May's 'presentation seminar' at the University of Birmingham.

Next year will mark five years since the Institute divided its investment portfolio and moved it to Partners Capital and Schrodgers Charities. During this period the global economic outlook has changed. It would therefore be both good practice and prudent to review our investment policy and expectations, as well as the performance of our two advisors, and this the Finance and Investment Committee will do.

Finally, it has been a great pleasure to be associated with the Institute during the last year and an honour to be its new Chairman. The experience of this year has shown me that the strength of the Institute lies in the people associated with it, whether they be Trustees, Members of the Governing Body and its sub-committees, the Membership, our Fellows or the staff and to all I offer my sincere thanks and warmest appreciation.

**ALEX MARKHAM**  
Chairman

Dr Sarah Techmann prepares to deliver her 'presentation seminar' at the LMB, Cambridge.





## REPORT OF THE GOVERNING BODY

for the year ended 31 December 2011

The Governing Body presents its Annual Report under the Charities Act 2011 together with the audited Financial Statements of the Charity for the year ended 31 December 2011. The Financial Statements have been prepared in accordance with the accounting policies set out in Note 1 (page 20) to the Financial Statements and comply with the Companies Act 2006, the requirements of the Statement of Recommended Practice 2005 "Accounting and Reporting by Charities", and the documents governing the constitution of the Charity.

### REFERENCE AND ADMINISTRATIVE DETAILS

Reference and administrative information is set out on pages 1 and 2 of this report.

#### **Members of the Governing Body, Directors and Trustees**

The members of the Governing Body are, for the purposes of company law, directors of the Institute and, for the purposes of charity law, trustees of the Institute and throughout this report are collectively referred to as the Trustees.

Details of the Trustees serving throughout the year, unless otherwise stated, are set out on page 1.

### STRUCTURE, GOVERNANCE AND MANAGEMENT

#### **Constitution**

The Institute is registered with the Charity Commission for England and Wales (registration number 206271). It is incorporated and registered in England and Wales under the Companies Act 2006 as a company limited by guarantee and not having a share capital (company number 34479). It is governed by its Memorandum and Articles of Association which were amended during the year and in compliance with the Companies Act 2006 the new Articles now include the provisions made in the Memorandum. Revisions to the Articles take account of the current activities of the Institute, provide for a change to the composition of the Governing Body and reflect current legislation; they were formally adopted at the AGM in September 2011. The Institute has charitable status.

#### **Appointment and re-appointment of Trustees**

The Trustees are the fifteen (formerly twelve) members of the Governing Body of whom six are appointed by the members at the annual general meeting. A maximum of six (formerly four) further Trustees are appointed by the Governing Body and there are currently four such appointees. One additional member is Lord Iveagh's representative, another is Professor Sir Alec Jeffreys who was appointed to 'life-time' membership, and the final member is a representative of the Royal Society. Trustees, other than the two nominated representatives, Professor Sir Alec Jeffreys and exceptionally those appointed by the Governing Body, serve for a maximum of six years and a system of planned rotation is in place. When considering appointment or nomination for election as Trustees, the Governing Body has regard to the specialist skills needed.

#### **Induction and training of Trustees**

New Trustees undergo induction sessions with the Chairman, Treasurer and Director during which they will gain an understanding of the Institute's structure, activities, financial position and future strategies. Prior to appointment they will attend, as an 'observer', one meeting of the Governing Body. New Trustees will also be made aware of their legal obligations with regard to the charity and company law. In addition, new Trustees will be advised of appropriate literature and training courses.

#### **Organisation**

The Institute is governed by its Governing Body which is responsible for setting policies, authorising actions on all significant operational issues and ensuring legality and good practice. The Governing Body meets formally twice a year.

Specific authorities are delegated to two sub-Committees in particular areas. The Scientific Advisory Committee (see page 2 for membership) has responsibility for the selection of the Lister Prize Fellows and the monitoring of their scientific activities, as well as providing scientific and medical advice to the Governing Body as required. The Finance and Investment Committee (see page 2 for membership)

## REPORT OF THE GOVERNING BODY

for the year ended 31 December 2011

has responsibility for interaction with the Institute's investment advisors, ensuring implementation of the Institute's investment policy and monitoring performance. It prepares and submits to the Governing Body the annual budget, and subsequently monitors performance against it. It also advises the Governing Body, as required, on other financial and risk matters.

The routine management of the Institute's activities is undertaken by its Director, aided by the Administrator and the Accountant. All staff work from home.

### **Risk Management**

The Trustees assess the risks facing the Institute and review the effectiveness of the controls to monitor and mitigate against them. A Risk Management Register is maintained and formally reviewed annually by the Governing Body.

The key controls used by the Institute include:

- Formal agendas for all Governing Body meetings
- Strategic planning, budgeting and management accounting
- Formal written policies
- Clear authorisation and approval levels
- Regular review of Fellows' scientific reports

The specific risk of bribery associated with any of the Institute's activities was reviewed during the year following the introduction of The Bribery Act 2010 and clear policies and procedures have been developed and communicated to all Trustees, staff and Members.

The principal risk facing the Institute lies in its ability to maintain and protect the value in real terms of its investments and to generate from them on a long term basis a consistently high overall return. This risk is mitigated by the Institute's appointment of experienced fund managers with a proven track record; by internal controls that allow close and regular monitoring of their performance against benchmarks; by the Institute's requirement of its fund managers to re-tender periodically and competitively for appointment, and by regular meetings that formally review investment performance and policy and include one-to-one presentations by the fund managers.

### **Objectives and activities**

The statutory Object of the Institute is to further understanding and progress in preventive medicine by promoting excellence in biomedical research in the UK.

When founded in 1891, the Institute sought to achieve this objective by establishing a research institute specialising in the area of 'infections' and their prevention by immunisation and other means. It complemented these research activities by the production and supply of materials such as vaccines and toxins.

The Institute continued in this mode until the late 1970s when increasing financial and regulatory pressures caused the cessation of these activities. Funds from the resultant sale of land and buildings created the funds from which present-day activities are financed; at 31 December 2011 these funds stood at £31.802m. From the 1980s the Institute has pursued its objective by the provision of grant funding to facilitate the research and careers of high quality individuals working in areas of biomedicine relevant to preventive medicine. It has done this because it believes that the acquisition and advancement of knowledge is crucial to the understanding of health and disease and that research to achieve this is driven forward by high quality individuals and their supporting staff.

### **Principal activities**

In pursuance of this objective, during 2011 the Institute awarded three new Prize Fellowships. In addition, the Institute has introduced a Summer Studentship scheme to enable up to twenty undergraduates per year to work with Lister Fellows or former Fellows in order to gain experience of biomedical research with the hope that they might consider it as a career. However, twenty-one studentships were awarded in 2011.

### **Achievement and Performance**

The Scientific Advisory Committee has monitored the performance of the current eighteen Lister Prize Fellows, through detailed review of the annual reports on their research which include details of all publications and presentations. The Scientific

## REPORT OF THE GOVERNING BODY

for the year ended 31 December 2011

Advisory Committee has reported to Trustees that it is of the view that all Fellows are undertaking high quality research and producing new knowledge that will contribute significantly to our understanding of disease, its causes, treatment and prevention. The reports of the research undertaken by the Summer Students have also been reviewed and found to be very satisfactory.

Three Lister Prize Fellowships were awarded in 2011 to Drs Cowling, Eddleston and Klose from a field of 44 initial applicants, following extensive scientific review of their applications and final interview by the Scientific Advisory Committee. (More details of the Prize Fellows and their research are provided on page 6). Each Prize Fellowship provides £200,000 which may be spent over five years on the recipient's research, although the funds are provided to the host institution at the commencement of the award.

Twenty-one Summer Studentships were awarded in 2011, each is a £2,000 student bursary and is paid to the host institution at the commencement of the award for the support of the student for up to a ten-week period. One of the awards was converted to the support of a schools-related project in lieu of a studentship.

The Institute maintained its commitment to fostering scientific interchange and collaboration within the Fellowship by holding its 27th Annual Research Fellowship meeting at Christ's College, Cambridge.

### **Public Benefit**

The statutory objectives, aims and activities of The Lister Institute of Preventive Medicine are to further understanding in preventive medicine by promoting biomedical research as set out on page 13 and 14 of this Report. To this end, the Trustees are satisfied that they fully comply with the duty in section 4 of the Charities Act 2006, namely to have due regard to the public benefit guidance published by the Charity Commission.

The public benefit of the Institute's grant-making is clearly identifiable in the 'Achievement and Performance' paragraphs above and in the list of Research Prize Fellows together with their areas of research on pages 7 and 8 of the Chairman's report.

All Lister Fellows are actively encouraged, where appropriate, to develop their research findings for potential public benefit and the Scientific Advisory Committee has regard to this when reviewing their research reports. The Lister Institute therefore benefits the public or a sector of it without imposing any restrictions. Applications from individuals are only accepted when demonstrably consistent with the charitable objectives of the Institute.

### **Investment policy and performance**

The Institute's investment objective is to develop and maintain its financial resources through the selection of investments, consistent with an acceptable level of risk.

The Institute's investment portfolio is split between Schroders and Co Limited (Schroders Charities) and Partners Capital LLP who both operate under mandates agreed in advance with the Finance and Investment Committee. These mandates set out an overall target asset allocation with allowable ranges for each category of asset.

Both investment advisors invest on a total returns basis through a variety of pooled funds and in accordance with the Institute's 'Investment Policy Statement' which states the overall investment objective and sets the investment return objectives, the risk parameters, the performance measures and review procedures for the portfolio. The investment advisors are informed at the beginning of the financial year of the Institute's likely cash requirements, both in terms of the amount and the timing of any draw-down, and are asked to keep in an income or cash account sufficient funds to meet them. The Institute has in place an ethical investment policy which does not permit direct investment in tobacco or tobacco-related companies.

The Institute's overall financial return objective is to preserve and if possible enhance the purchasing power of its portfolio assets, net of costs and approved withdrawals, over rolling three-year periods. This goal is synonymous with the pursuit of a time-weighted net return on portfolio assets that equals and if possible exceeds cost inflation as measured by the UK Consumer Price Index plus the Institute's long-term spending rate of 4% measured over corresponding three-year periods.



## REPORT OF THE GOVERNING BODY

for the year ended 31 December 2011

The performance of the investment portfolio is reviewed by the Finance and Investment Committee, which had two meetings in the year with the investment advisors to review performance, liquidity within the portfolio, and the due diligence undertaken on potential new investment vehicles. In addition, the Institute receives detailed quarterly valuation and transaction reports. In a fluctuating and difficult year the fund has fallen from £33.344m to £31.802m including withdrawals of £580,000.

More details of the Institute's activities are set out in the Chairman's Report on pages 3 to 11.

### FINANCIAL REVIEW

#### *Allocation of resources*

The Institute, which does not seek to raise funds from the public, depends primarily on investment returns to meet its pension provision payments, administrative expenditure and expenditure in furtherance of the Charity's objectives. The total return on investments for the year was realised/unrealised losses of £1.186m and investment income of £331,000.

The resources expended totalled £921,000 of which £754,000 was resources expended for the Institute's charitable activities.

As the Prize Fellowships are fixed sum awards, expenditure can be regulated by altering the number and/or value of prizes awarded each year. This will be done in light of the income and realised/unrealised gains generated from our investment portfolio. This will be sensitive to the performance of our investments and will be reviewed annually before fresh commitments are made. In the year, despite the rising value of the investment portfolio and returns, but conscious of the continuing economic uncertainties, the Trustees felt it prudent to continue the award of three Prizes and to maintain their value at £200,000 each. The Summer Studentship scheme at a total cost of £42,000 can be reviewed each year with regard to both number and value.

#### *Reserves policy*

The policy of the Trustees is to maintain adequate financial resources to provide income to meet

current and future commitments as they fall due and ensure that adequate funds remain available to enable them to make awards in perpetuity.

The adequacy of the level of reserves and the continuing appropriateness of the policy are reviewed on an annual basis by the Trustees. Despite the current downturn in the level of investments compared with the high of 2007 they feel satisfied with the policy over the long-term and the ability of the Institute to maintain appropriate levels of activity in the short-term.

#### *Plans for the future*

The Institute's future policy is to continue to pursue its current objectives. It will therefore maintain the Prize Fellowship scheme which it sees as a funding priority. The Summer Studentship scheme will also be maintained together with the opportunity for schools to receive talks from the Institute's Fellowship on science and biomedical subjects as part of an 'outreach' programme.

#### *Statement of Trustee responsibilities*

The Trustees (who are also directors of The Lister Institute of Preventive Medicine 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 SORP;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable UK accounting standards have been followed, subject to any material

## REPORT OF THE GOVERNING BODY

for the year ended 31 December 2011

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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 proper 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.

In so far 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.

By Order of the Governing Body

ALEX F MARKHAM

*Chairman*

MICHAEL FRENCH

*Treasurer*

9 July 2012

## INDEPENDENT AUDITORS' REPORT

to the Members of The Lister Institute of Preventive Medicine

We have audited the financial statements of The Lister Institute of Preventive Medicine for the year ended 31 December 2011 which comprise the Statement of Financial Activities, the Balance Sheet and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

### **Respective responsibilities of trustees and auditors**

As explained more fully in the Trustees' Responsibilities Statement set out on pages 15 and 16, the Trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view.

Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

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

### **Scope of the audit of the financial statements**

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the charitable company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Trustees; and the overall presentation of the financial statements. In addition, we read all the financial and non-financial information in the Chairman's Annual Report and the

Report of the Governing Body to identify material inconsistencies with the audited financial statements. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

### **Opinion on financial statements**

In our opinion the financial statements:

- give a true and fair view of the state of the charitable company's affairs as at 31 December 2011 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;
- have been prepared in accordance with the requirements of the Companies Act 2006.

### **Opinion on other matters prescribed by the Companies Act 2006**

In our opinion the information given in the Trustees' Annual Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

### **Matters on which we are required to report by exception**

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; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of Trustees' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Murray Legg (Senior Statutory Auditor)  
for and on behalf of PricewaterhouseCoopers LLP  
Chartered Accountants and Statutory Auditors  
London

9 July 2012

## STATEMENT OF FINANCIAL ACTIVITIES

for the year ended 31 December 2011

	Notes	2011 £'000	2010 £'000
<b>Incoming resources</b>			
Incoming resource from generated funds:			
Investment income	2	331	379
Other incoming resources	3	9	9
<b>Total incoming resources</b>		<b>340</b>	<b>388</b>
<b>Resources expended</b>			
Costs of generating funds:			
Investment management costs	4	(120)	(120)
Charitable Activities:			
Prizes & Summer Studentships awarded in year	6	(642)	(600)
Support costs	7	(112)	(113)
Governance costs	8	(47)	(43)
<b>Total resources expended</b>		<b>(921)</b>	<b>(876)</b>
<b>Net expenditure</b>		<b>(581)</b>	<b>(488)</b>
<b>(Losses)/ gains on investment assets</b>		<b>(1,186)</b>	<b>2,879</b>
<b>Pension actuarial gains/ (losses)</b>		<b>117</b>	<b>(16)</b>
<b>Net movement in funds</b>		<b>(1,650)</b>	<b>2,375</b>
Total funds brought forward		33,265	30,890
<b>Total funds carried forward</b>		<b>31,615</b>	<b>33,265</b>

All items in the above Statement of Financial Activities relate to continuing operations for both years. The Institute has no other recognised gains and losses other than as stated above and hence no separate income and expenditure statement has been shown.

The notes set out on pages 20 to 24 form part of these financial statements.

## BALANCE SHEET

as at 31 December 2011

Company no. 34479

	Notes	2011 £'000	2010 £'000
<i>Fixed assets</i>			
Investments	10	31,802	33,344
<b>Total fixed assets</b>		<b>31,802</b>	<b>33,344</b>
<i>Current assets</i>			
Debtors	11	17	36
Cash at bank and in hand	12	231	241
<b>Total current assets</b>		<b>248</b>	<b>277</b>
<i>Current liabilities</i>			
Creditors: amounts falling due within one year	13	(233)	(25)
<b>Net current assets</b>		<b>15</b>	<b>252</b>
<b>Total assets less current liabilities</b>		<b>31,817</b>	<b>33,596</b>
<i>Creditors: amounts falling due after more than one year</i>			
Pension provision	14	(202)	(331)
<b>Net assets</b>		<b>31,615</b>	<b>33,265</b>
<i>represented by</i>			
Unrestricted funds		31,615	33,265
<b>Total charity funds</b>		<b>31,615</b>	<b>33,265</b>

The Trustees have taken advantage of the exemptions conferred by the Companies Act 2006, on the grounds that the Institute is entitled to the benefit of those exemptions as a small company.

These financial statements were approved by the Governing Body on 9 July 2012

ALEX F MARKHAM	Members of the Governing Body
MICHAEL FRENCH	

The notes set out on pages 20 to 24 form part of these financial statements.

## NOTES TO THE FINANCIAL STATEMENTS

for the year ended 31 December 2011

### I PRINCIPAL ACCOUNTING POLICIES

#### **Basis of preparation**

The Financial Statements have been prepared in accordance with the Statement of Recommended Practice, Accounting and Reporting by Charities (SORP 2005), applicable accounting standards and the Companies Act 2006. The Financial Statements are prepared in accordance with the historical cost convention modified by the revaluation of investments. The principal accounting policies adopted in the preparation of the Financial Statements are as follows:

#### **Incoming resources**

All incoming resources are accounted for on a receivable basis.

#### **Prizes and grants**

The cost of Research Prize Fellowships is charged in the year awarded.

#### **Resources Expended**

The costs of generating funds include those fees payable to the Institute's investment fund managers for the management of the Institute's investment portfolio. These are accounted for on an accruals basis. Charitable expenditure comprises all expenditure directly relating to the objects of the charity and is accounted for on an accruals basis. The allocation of expenditure between governance and management, administration and support costs is reviewed on an annual basis to ensure the allocation is appropriate. Indirect costs are generally treated as falling into the latter category with the exception of a proportion of salary and related costs which have been classified as governance costs.

#### **Governance costs**

In addition to auditor's remuneration, governance costs comprise the proportion of staff costs associated with the time spent on the preparation of the statutory accounts and other governance issues together with honoraria remuneration provided to members of the Institute's Scientific Advisory Committee for their duties in selecting the Prize Fellows.

#### **Supplementary pensions and staff pensions**

An estimate of the full provision is made in the Financial Statements for the costs of future supplementary payments. The provision and charge to income are reviewed annually by the Trustees in the knowledge that the number of persons receiving the supplementary pensions will not increase. The pension costs are assessed in accordance with actuarial advice and these costs are accounted for in accordance with FRS17. Existing employees participate in a defined contribution scheme, the costs of which are expensed as incurred. These disclosures are made in accordance with FRS17.

#### **Investments**

Investments are shown at market value in the balance sheet. Changes in the market value are included in the Statement of Financial Activities as realised and unrealised investment gains or losses in the year in which they arise. Investments denominated in foreign currencies are valued at year-end rates of exchange.

#### **Cash flow statement**

The Charity has taken advantage of the exemption provided by Financial Reporting Standard No 1 for small charities from the obligation to prepare a cash flow statement.

#### **Taxation**

The organisation is a registered charity and has obtained exemptions from taxation under Chapter 3 of Part 11 of the Corporation Tax Act 2010. This exemption will remain as long as income is compatible with that statutory provision and expenditure is applied to charitable purposes only.

## 2 INVESTMENT INCOME

	2011	2010
	£'000	£'000
Income from fixed asset investments	330	378
Bank interest receivable	1	1
	331	379

## 3 OTHER INCOMING RESOURCES

	2011	2010
	£'000	£'000
Royalty income	9	9

## 4 COSTS OF GENERATING FUNDS

	2011	2010
	£'000	£'000
Partners Capital LLP	55	53
Schroders & Company Ltd	65	67
Total investment management fees	120	120

Investment management fees referred to here are those accrued fees relating to the management of the Institute's investment portfolios in 2011.

## 5 GOVERNING BODY AND STAFF COSTS

### Emoluments of members of the Governing Body

No member of the Governing Body received any emoluments in respect of services to the Institute during the year (2010: nil). Travel expenses of £1,470 were paid relating to the claims of six members in connection with their attendance at meetings (2010: £977, eight members).

Members of the Governing Body who are also members of the Scientific Advisory Committee receive remuneration in relation to their services to the committee. Remuneration of £1,875 (2010: £1,875) was paid to one of the members.

### Employee information

The average number of persons employed by the Institute during the year was three (2010: three), two of whom are part-time. All were employed in an administrative and support capacity. No employees earn over £60k p.a. (2010: nil).

### Staff costs

	2011	2010
	£'000	£'000
Gross salaries and pension contributions	74	73
Employer's national insurance and state pension contributions	7	7
	81	80

The salary costs are allocated under governance where related to statutory accounts preparation, the balance being reported within support costs.

**6 PRIZES & SUMMER STUDENTSHIPS**

	2011	2010
	£'000	£'000
Prize awards	600	600
Summer Studentship payments	42	-
	642	600

In addition to the 20 studentships of £2k a further summer studentship award of £2k was substituted for the support of a schools-related project.

**7 SUPPORT COSTS**

	2011	2010
	£'000	£'000
Support costs (see Note 9)	95	95
Pension costs (see Note 14)	17	18
	112	113

**8 GOVERNANCE COSTS**

	2011	2010
	£'000	£'000
Auditor's remuneration	12	11
Staff costs	10	10
Honoraria and events	25	22
	47	43

No non-audit services were provided by the auditors during the year (2010: none).

**9 SUPPORT COSTS: BREAKDOWN**

	2011	2010
	£'000	£'000
Salary-related costs	71	70
Office expenses	10	11
Travel expenses	4	3
Professional fees	10	11
	95	95



## 10 INVESTMENTS

Listed investments are valued at middle market quotations ruling at the year-end

	2011	2010
	£'000	£'000
Market value at beginning of year	33,344	31,019
Purchases during the year at cost	4,109	11,748
Proceeds of sales during the year	(4,978)	(13,225)
Reinvested income for the year	195	218
Movement in un-invested cash	318	705
Cash withdrawn	(580)	(800)
Net change in market value	(606)	3,679
Market value at year-end	31,802	33,344

The portfolio's asset allocation was as follows:

	2011	2010
	£'000	£'000
<i>UK investments</i>		
Equities	6,523	7,715
Fixed interest	1,264	1,240
Other (including private equity, property, commodities and alternatives)	4,008	4,186
Cash	160	12
Total UK investments	11,955	13,153
<i>Non-UK investments</i>		
Equities	12,301	12,680
Fixed interest	1,484	1,181
Other (including private equity, property, commodities and alternatives)	5,715	5,711
Cash	347	619
Total non-UK investments	19,847	20,191
Total investments	31,802	33,344

At 31 December 2011 no single shareholding exceeded 5% of the total value of investments (2010: none).

## 11 DEBTORS

	2011	2010
	£'000	£'000
Accrued income	17	36

## 12 CASH

	2011	2010
	£'000	£'000
Cash at bank	231	241

### 13 CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	2011	2010
	£'000	£'000
Taxation and social security	3	3
Accruals and deferred expenditure	230	22
Total creditors falling due within one year	233	25

### 14 PROVISION FOR LIABILITIES AND CHARGES

This represents a provision for future supplementary pension payments, in respect of ex-employees, based on their salary and length of service. The pensions are unfunded, with payments made out of the Institute's funds as they fall due.

Movements in the pension provision during the year were as below:

	2011	2010
	£'000	£'000
Liability at beginning of period	331	341
Plus interest cost	17	18
Plus actuarial gains and losses	(117)	16
Benefits paid	(29)	(44)
Liability at end of period	202	331

The tables below state the FRS17 actuarial assumptions used to estimate the pension provision.

#### Principal actuarial assumptions

Valuation at 31 December 2011

	2011	2010
Rate of increase to pensions in payment	2.7%	3.1%
Rate used to discount scheme liabilities	4.6%	5.3%

The post-retirement mortality assumption uses the PCA00 base tables (year of birth) with improvements equal to medium cohort with a 1% minimum.

### 15 RELATED PARTY TRANSACTIONS

There were no related party transactions in the year (2010: none).





# THE LISTER INSTITUTE OF PREVENTIVE MEDICINE

PO Box 1083, Bushey, Hertfordshire WD23 9AG

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## ANNUAL REPORT AND FINANCIAL STATEMENTS

for the year ended 31 December

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# 2012

The Lister Institute of Preventive Medicine  
is a company limited by guarantee (*England 34479*)  
and a registered charity (*206271*)



The Institute was founded in 1891 and for the next 80 years played a vital role in the development of the laboratory aspects of preventive medicine as an independent research institute in the UK.

Financial pressures in the 1970s led to the closure of the research and production facilities and the conversion of the Lister Institute into a highly successful trust awarding prestigious Research Fellowships from 1982 which in 2003, again because of financial pressures, were revised to become Prize Fellowships.

The cover portrait of Lord Lister reproduced by courtesy of the Royal Veterinary College

## LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2012

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### THE GOVERNING BODY

Professor Sir Alex Markham, DSc, FRCP, FRCPath, FMedSci, *Chairman*

Mr Michael French, BSc (Eng), FCA, *Hon Treasurer*

Professor Janet Darbyshire, CBE, FRCP, FFPH, FMedSci

Professor Dame Kay Davies, CBE, DBE, MA, DPhil, FMedSci, FRCP (Hon), FRCPath, FRS

Hon Rory M B Guinness

Professor Douglas Higgs, MB, BS, MRCPath, DSc, FRCP, FRCPath, FRS

Mr Andrew Hutton, MA, CFA

Professor Robin F Irvine, FIBiol, FMedSci, FRS (*Retired 7 September 2012*)

Professor Sir Alec J Jeffreys, DPhil, FMedSci, FRS

Professor Patrick Maxwell, FRCP, FMedSci (*Appointed 7 September 2012*)

Professor Tony Minson, PhD, FMedSci

Mr Matthew Pintus, BA (*Appointed 7 September 2012*)

Mr John G Rhodes, MA (*Retired 7 September 2012*)

Professor Geoffrey L Smith, PhD, FMedSci, FRS

Professor Cheryll A Tickle, CBE, FRSE, FMedSci, FRS

### SENIOR MANAGEMENT

*Secretary and Director:* Dr Trevor A Hince, PhD

#### *Business Address*

PO Box 1083  
Bushey  
Hertfordshire WD23 9AG

#### *Solicitors*

Macfarlanes  
20 Cursitor Street  
London EC4A 1LT

#### *Bankers*

Messrs Coutts & Co  
St Martins Office  
440 Strand  
London WC2R 0QS

#### *Auditors*

PricewaterhouseCoopers LLP  
1 Embankment Place  
London WC2N 6RH  
(*Resigned 8 January 2012*)

#### *Registered Office*

Macfarlanes  
10 Norwich Street  
London EC4A 1BD

#### *Investment Advisors*

Schroders & Co Limited  
100 Wood Street  
London EC2V 7ER

Partners Capital LLP  
5 Young Street  
London W8 5EH

#### *Auditors for 2012 Report and Financial Statements*

Kingston Smith LLP  
Devonshire House  
60 Goswell Road  
London EC1M 7AD

Website: [www.lister-institute.org.uk](http://www.lister-institute.org.uk)

Telephone: 01923 801886

## LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2012

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### THE SCIENTIFIC ADVISORY COMMITTEE

Professor Patrick Maxwell, FRCP, FMedSci (*Appointed as Chairman 7 September 2012*)

Professor Robin F Irvine, FIBiol, FMedSci, FRS, *Chairman (Retired 7 September 2012)*

Professor Wendy Bickmore, BA, PhD, FMedSci, FRSE

Professor Tim Bliss, FMedSci, FRS (*Retired 7 September 2012*)

Professor Jon Cohen, FRCP, FMedSci (*Appointed 7 September 2012*)

Professor Mary Collins, PhD, FMedSci

Professor William Deakin, PhD, FRCPsych, FMedSci (*Appointed 7 September 2012*)

Professor Annette C Dolphin, PhD (*Appointed 7 September 2012*)

Professor David Holden, FMedSci, FRS

Dr David Ish-Horowicz, PhD, FRS (*Retired 7 September 2012*)

Professor John Iredale, FRCP, FMedSci, FRSE (*Appointed 7 September 2012*)

Professor J Simon Kroll, FRCP, FMedSci, FRCPCH (*Retired 7 September 2012*)

Professor Irene Leigh, OBE, MD, FRCP, FMedSci (*Retired 7 September 2012*)

Professor Kate Storey, PhD, FRSE (*Appointed 7 September 2012*)

Professor Jonathan Waltho, BSc, PhD

*Secretary:* Dr Trevor A Hince, PhD

### THE FINANCE AND INVESTMENT COMMITTEE

Mr Michael French, BSc (Eng), FCA, *Chairman*

Hon Rory M B Guinness

Mr Andrew Hutton, MA, CFA

Professor Sir Alex Markham, DSc, FRCP, FRCPath, FMedSci

Professor Tony Minson, PhD, FMedSci

Mr Matthew Pintus, BA (*Appointed 7 September 2012*)

Mr John G Rhodes, MA (*Retired 7 September 2012*)

*Secretary:* Dr Trevor A Hince, PhD



## CHAIRMAN'S ANNUAL REPORT

for the year ended 31 December 2012

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IN MANY RESPECTS 2012 has been a year of quiet consolidation for the Institute. The value of our investment portfolio rose, we were able to award three Research Prize Fellowships from a field of above sixty applicants and continue the Summer Studentship scheme. The Governing Body has met twice during the year with the new members already contributing substantially to our discussions, whilst the two sub-committees have overseen their areas of responsibility with the usual efficiency. As I indicated in last year's report we did, this year, conduct a formal review of the Institute's investment management with a very satisfactory outcome – see Financial Matters. The Institute continues to discuss ways in which we can ensure that the most deserving individuals receive the Prize Fellowships but have yet to conclude whether any specific changes to the scheme are necessary. To those who have met or heard the new Prize Fellows speak about their research, the quality of the successful individuals and their research is not in doubt!

### **Governing Body and Administrative Matters**

#### **Governing Body and Administration**

Turnover amongst the trustees of a charity is desirable since it brings new individuals with a fresh perspective to the oversight of the organisation. Yet bidding 'farewell' to those who have served the charity for many years is hard. This year, two long-standing and key members of the Governing Body left as they completed their terms of office. Mr John Rhodes stood down and the Institute will miss the clear and logical inputs from his legal mind – he was particularly helpful with the re-writing of the Institute's new Articles, and as member of the Finance and Investment Committee he kept our fund managers on their toes! In his place it is a great pleasure to welcome Matthew Pintus, also from the law firm Macfarlanes, who brings a great depth of experience from his work with other charities. The second departure was that of Professor Robin Irvine who has been a member of the Scientific Advisory Committee (SAC) since 2004 and its chair since 2006. Robin's contribution to the Institute has been enormous and his chairing of the final interviews for the Lister Prize Fellowships masterful. With his charm, straight-forwardness and easy manner he has been able both to put the candidates at their ease yet subject them to an intensive scientific grilling. Then, often having started with different views of the interviewees, he has invariably brought the members of the Scientific Advisory Committee to a unanimous choice of the best candidates, who themselves have usually presented on very different scientific areas – a remarkable achievement! We also learnt more about Robin's research and other interests when he gave the 'Special Lister Lecture' at the 2012 Fellows' meeting (see page 10). Taking over from

Robin, as chairman of the SAC, will be Professor Patrick Maxwell, who has already served as a member for two years. Patrick brings a wealth of experience from his many roles in academic medicine and with the Academy of Medical Sciences, and I know he will ensure that we appoint only the best Prize Fellows. I am also delighted to congratulate Patrick on his appointment as Regius Professor of Physic at the University of Cambridge, a post in which he succeeds Professor Sir Patrick Sissons, a former member of the Institute's Governing Body.

I should like to thank all members of the Governing Body for the time which they spend on the Institute's business and the thought which they give to its affairs. The Institute runs very effectively with only two Governing Body meetings a year; one in spring and the autumn meeting, combined with the AGM and Fellows' meeting, in Cambridge. This gives Trustees a chance to meet old and new Fellows, to learn at first-hand about any concerns and to hear about some really excellent scientific research. The work of the Governing Body is made easier by the knowledge that two key areas, science and finance/investment, are so ably looked after by the relevant sub-Committees and I thank their members for all their efforts and dedication. Finally, a major contributor to the smooth running of the Institute is the efficiency of Trevor Hince and his small administrative team of Naomi King and Jacky Wilson and I thank them on behalf of all Trustees.

## **Institute Membership**

Three Prize Fellows, Dr Nina Balthasar, Professor Christopher Thompson and Professor Kenneth Smith, who completed their fellowships in 2012, have been welcomed into membership.

## **Financial Matters**

It is reassuring that having seen a fall in the value of the Institute's investments last year, 2012 has recorded gains of £2.95m to bring the portfolio's value up to £33.96m. Against this financial background the Institute was able to award three Prize Fellowships, and maintain the Summer Studentship scheme, a total expenditure of £640,000, whilst the cost of 'running' the Institute reduced slightly to £142,000. However, whilst the performance of stock markets globally improved from mid-year, the world economic picture is still very volatile with many countries, including the UK, showing no real growth; so prudence remains the 'watchword'.

The Institute not only has a policy of meeting regularly with its investment advisors but periodically of conducting a major review of their performance and future strategies alongside 'bids' from other firms and we did this in October. I and the other Trustees are particularly grateful to Michael French, the Institute's Hon. Treasurer, and Andrew Hutton

for overseeing this process. As a first step Andrew re-wrote the Institute's Investment Policy Statement and then he, together with Michael French and Trevor Hince, visited several investment firms, selecting two who should be invited to present to the full Institute Finance and Investment Committee alongside our existing advisors: Partners Capital and Schroders. Following a long and demanding day of questioning and discussion the decision was taken to continue with Partners Capital and Schroders. This was a very necessary and rigorous process to ensure that the Institute's funds are managed in the most appropriate way to meet our future needs and I should like to thank Michael and all members of the Finance and Investment Committee for their work throughout the year and particularly in this review; our thanks must also go to Matthew Pintus and Macfarlanes for hosting the review.

Further details on the Institute's finances may be found on pages 15 and 16 and are summarised in the Statement of Financial Activities on page 18.

## **Scientific Activities**

### **Scientific Advisory Committee**

The work of the Scientific Advisory Committee in selecting the Prize Fellows is at the heart of the Institute's activities. Each year the SAC is confronted with the daunting task of selecting just three Prize Fellows from an initially large field of applicants, this year 64. The process proceeds by an initial screening and scoring by SAC members to arrive at a long-list. These candidates are then further evaluated by the SAC but with the help of reviews from international researchers, to arrive at a short-list of eight candidates who are interviewed. Towards the end of the selection process the standards are very high and, coupled with the very diverse fields of research represented, the task of selecting the 'winners' is extremely difficult – it is a tribute to SAC members and their chairman that each year they identify some truly exceptional young researchers – and this year was no different.

As with all Institute committees there is planned turnover in the membership of the SAC and this year a number of members stood down. They were: Professor Tim Bliss, Dr David Ish-Horowicz, Professor Simon Kroll and Professor Irene Leigh, as well as Professor Patrick Maxwell moving to take over the chairmanship from Professor Robin Irvine. The Institute owes them, and those who remain on the committee, a debt of gratitude for their magnificent efforts in selecting the Prize Fellows and maintaining such high standards. When members step down and after each application round we review the SAC membership to ensure that we have the right mix of expertise and seek to recruit new members appropriately. I am delighted that the following distinguished researchers have agreed to join the

SAC: Professor Jon Cohen, Professor William Deakin, Professor Annette Dolphin, Professor John Iredale and Professor Kate Storey. I hope that they and all members of the SAC under their new chairman will enjoy the challenge of selecting the next Prize Fellows.

## 2012 Lister Research Prize Fellowship Winners

The recipients of the 2012 Lister Research Prize Fellowships, who each received the award of £200,000, were:

<b>Prize Winner</b>	<b>Title of Research</b>
<b>Dr David Komander</b> MRC Laboratory of Molecular Biology, Cambridge	Bacterial interference with the ubiquitin system
<b>Dr David Lyons</b> University of Edinburgh	Elucidating mechanisms of myelinated axon formation, function and repair using zebrafish
<b>Dr Akhilesh Reddy</b> University of Cambridge	Peroxiredoxins and redox oscillations in the circadian (24 hour) clockwork

Two of the three 2012 Lister Research Prize winners: Dr David Lyons and Dr David Komander – Dr Akhilesh Reddy was unable to be present on the occasion of the Fellowship Weekend



## Current and Former Lister Prize Fellows

The following were awarded Lister Research Prize Fellowships since the inception of the Prize Fellowship scheme. This is an outstanding collection of scientists and represents a major contribution to the well-being of UK biomedical research:

<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Dr Nina Balthasar</b> University of Bristol	Identifying the novel CREB coactivator TORC2's role in the hypothalamic pathways controlling energy homeostasis	2007
<b>Dr Oliver Billker</b> The Wellcome Trust Sanger Institute	In search of the xanthurenic acid receptor of malaria parasites—a potential target for transmission control	2004
<b>Dr Nia Bryant</b> University of Glasgow	Using yeast as a model system to understand the insulin-dependent trafficking of GLUT4 in adipocytes	2004
<b>Dr Simon Bullock</b> MRC Laboratory of Molecular Biology, Cambridge	Mechanisms and neuronal functions of motor-driven transport	2008
<b>Dr Juan Burrone</b> Kings College London	The role of neuronal activity during synapse formation	2009
<b>Dr Vincenzo Costanzo</b> Cancer Research UK Clare Hall Laboratories	The role of ATM and ATR in preventing genomic instability	2006
<b>Dr Victoria Cowling</b> University of Dundee	Regulation and function of the 7-methylguanosine cap	2011
<b>Professor Daniel Davis</b> Imperial College London	Nanotubes and synapses in immune cell communication	2005
<b>Dr Michael Eddleston</b> University of Edinburgh	Prevention of deaths from late respiratory failure in organo-phosphorus pesticide poisoning	2011
<b>Dr Rebecca Fitzgerald</b> MRC Cancer Cell Unit Cambridge	Translational research programme for prevention of oesophageal adenocarcinoma	2008
<b>Dr Holger Gerhardt</b> Cancer Research UK London Research Institute	Endothelial guidance in vascular patterning	2008
<b>Dr Fiona Gribble</b> Cambridge Institute for Medical Research University of Cambridge	Secretion of incretin hormones from the mouse intestine	2006

*Continued overleaf*

<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Dr Andrew Jackson</b> University of Edinburgh	Cellular pathways determining human brain size	2009
<b>Dr Josef Kittler</b> University College London	Miro family proteins as regulators of synaptic bio-energetics and a locus for mitochondrial dysfunction in neurological disease	2010
<b>Dr Robert Klose</b> University of Oxford	Biochemical isolation and functional dissection of the CpG island proteome	2011
<b>Professor Paul Lehner</b> Cambridge Institute for Medical Research University of Cambridge	The role of HSP70 in MHC Class I mediated antigen presentation in human dendritic cells	2004
<b>Dr Juan Martin-Serrano</b> King's College London	Functional parallels between HIV-1 budding and the last step of cell division	2008
<b>Dr Robin May</b> University of Birmingham	The molecular basis of latency and dissemination during cryptosporidiosis	2010
<b>Professor Kenneth Smith</b> Cambridge Institute for Medical Research University of Cambridge	Control of infection and autoimmunity by an inhibitory Fc receptor FcγRIIb	2007
<b>Dr Grant Stewart</b> University of Birmingham	Investigating the role of the RIDDLE syndrome gene in promoting repair of DNA damage	2009
<b>Professor Tomoyuki Tanaka</b> University of Dundee	Mechanisms of kinetochore-microtubule interaction	2005
<b>Dr Sarah Teichmann</b> MRC Laboratory of Molecular Biology Cambridge	Decoding genetic switches in T helper cell differentiation	2010
<b>Professor Chris Thompson</b> University of Manchester	Identifying and characterising genes that control cell fate choice and social behaviour	2005
<b>Professor Daan van Aalten</b> University of Dundee	Structural mechanisms and specificity of O-GlcNAc signalling in the eukaryotic cell	2006
<b>Dr Fiona Wardle</b> Kings College London	Transcriptional control of mesodermal cell differentiation in vertebrates	2007

## Fellowship Activities

Many Fellows and former Fellows attending the 2012 Fellows' meeting said that they felt a particular 'buzz' about the occasion and certainly there was a very energised feeling at the meeting. Proceedings were opened by talks from two of the 2012 Prize Fellows, Dr David Komander and Dr David Lyons, both giving very accomplished presentations on, respectively, how bacteria interfere with the ubiquitin system, and myelinated axon formation in the zebrafish. The diversity of the research undertaken by Lister Fellows and former Fellows was illustrated by the excellent talks given in the subsequent scientific sessions.

The speakers and their titles were:

- Dr Fiona Gribble – Targeting the gut for the treatment of diabetes
- Dr Jessica Downs – Protective packaging for DNA: the role of chromatin in maintaining genome stability
- Dr Cathy Tournier – Stress-activated signalling pathways in neurodegeneration
- Dr Ian Adams – Maintaining genetic and chromosomal stability through the generations
- Professor Daan van Aalten – Molecular mechanisms of O-GlcNAc signalling

Presentations at the Fellows' Meeting engaged the audience with their insights, range and quality





The Special Lister Lecture was given by Professor Robin Irvine, the outgoing chairman of the SAC, and with the intriguing title of "Adventures with Inositides; or, when to leave a Figure out and put a Table in instead" gave a wonderful *tour de force* of the development of the area of inositol phosphate biochemistry, illustrating the unique chemistry of these molecules. However, that was not all and parts of the talk were devoted to Robin's ornithological interests with wonderful pictures of Storm Petrels taken on Shetland and his ability to mimic their calls!

The Reception and Dinner were the usual enjoyable occasions and following the presentation of 'scrolls', the new Prize Fellows were welcomed into the Lister family in typical style!



Professor Robin Irvine gave the Special Lister Lecture at the Fellows' Meeting in Cambridge

## Conclusion

The Institute is delighted to hear of the successes of its Fellows and former Fellows as they receive recognition and promotions. It is, therefore a great pleasure to offer congratulations to Dr Sarah Teichmann who was invited to give the Royal Society's Francis Crick Lecture this year. It is a real tribute to her outstanding research on how computational analysis of genomic information reveals fundamental principles of gene and protein interactions. We also wish her well as she moves from the MRC's Laboratory of Molecular Biology, Cambridge to the EMBL-EBI & Wellcome Trust Sanger Institute.

Dr Teichmann is one of the seven female researchers who have over the years been awarded one of the 25 Prize Fellowships given to date. It was therefore of some concern to the Institute that no female researchers were interviewed this year. This might just be a statistical 'blip' but we wish to ensure that we have no inadvertent biases and we are reviewing our application and selection procedures. At post-doctoral level there are a large number of exceptional young female researchers. Like many biomedical-funding organisations, we wish to ensure that this talent is not lost and that female researchers are able to go on to lead their own research groups. The Institute's Prize Fellowships have always been aimed at top



quality researchers but with the intent that the award should really make a difference to their careers. Thus the 'impact of the prize' will continue to be a very important criterion in the selection of the 'winners'.

I am delighted that the Summer Studentship scheme has been so warmly welcomed by the Fellows and former Fellows and that some really bright students have had the opportunity of working in a high quality research laboratory. The Institute hopes that this might stimulate them to go on to PhD studies and research careers.

During the last few months, work has gone on to re-vamp the Institute's website generally, making it more up-to-date and easy to use; it is often an individual's first exposure to the Institute and it needs to give the right impression. It is hoped to launch this in the late spring of 2013.

As I complete my second year as the Institute's Chairman, I am progressively coming to understand even more clearly why it is held in such high regard and affection by so many – it really is a truly remarkable organisation!

ALEX MARKHAM

Chairman

Dr Jessica Downs and Professor Dame Jean Thomas at the Fellows' meeting reception before dinner



## REPORT OF THE GOVERNING BODY

for the year ended 31 December 2012

The Governing Body presents its Annual Report under the Charities Act 2011 together with the audited Financial Statements of the Charity for the year ended 31 December 2012. The Financial Statements have been prepared in accordance with the accounting policies set out in Note 1 (page 20) to the Financial Statements and comply with the Companies Act 2006, the requirements of the Statement of Recommended Practice 2005 "Accounting and Reporting by Charities", and the documents governing the constitution of the Charity.

### REFERENCE AND ADMINISTRATIVE DETAILS

Reference and administrative information is set out on pages 1 and 2 of this report.

#### *Members of the Governing Body, Directors and Trustees*

The members of the Governing Body are, for the purposes of company law, directors of the Institute and, for the purposes of charity law, trustees of the Institute and throughout this report are collectively referred to as the Trustees.

Details of the Trustees serving throughout the year, unless otherwise stated, are set out on page 1.

### STRUCTURE, GOVERNANCE AND MANAGEMENT

#### *Constitution*

The Institute is registered with the Charity Commission for England and Wales (registration number 206271). It is incorporated and registered in England and Wales under the Companies Act 2006 as a company limited by guarantee and not having a share capital (company number 34479). It is governed by its Memorandum and Articles of Association and has charitable status.

#### *Appointment and re-appointment of Trustees*

The Trustees are the fifteen members of the Governing Body of whom six are appointed by the members at the annual general meeting. A maximum of six further Trustees are appointed by the Governing Body and there are currently four such

appointees. One additional member is Lord Iveagh's representative, another is Professor Sir Alec Jeffreys who was appointed to 'life-time' membership, and the final member, Professor Cheryl Tickle, is the representative of the Royal Society. Trustees, other than the two nominated representatives, Professor Sir Alec Jeffreys and, exceptionally, those appointed by the Governing Body, generally serve for a maximum of six years and a system of planned rotation is in place. When considering appointment or nomination for election as Trustees, the Governing Body has regard to the specialist skills needed.

#### *Induction and training of Trustees*

New Trustees undergo induction sessions with the Chairman, Treasurer and Director during which they will gain an understanding of the Institute's structure, activities, financial position and future strategies. Prior to appointment they will attend, as an 'observer', one meeting of the Governing Body. New Trustees will also be made aware of their legal obligations with regard to the charity and company law. In addition, new Trustees will be advised of appropriate literature and training courses.

#### *Organisation*

The Institute is governed by its Governing Body which is responsible for setting policies, authorising actions on all significant operational issues and ensuring legality and good practice. The Governing Body meets formally twice a year.

Specific authorities are delegated to two sub-Committees in particular areas. The Scientific Advisory Committee (see page 2 for membership) has responsibility for the selection of the Lister Prize Fellows and the monitoring of their scientific activities, as well as providing scientific and medical advice to the Governing Body as required. The Finance and Investment Committee (see page 2 for membership) has responsibility for interaction with the Institute's investment advisors, ensuring implementation of the Institute's investment policy and monitoring performance. It prepares and submits to the Governing Body the annual budget, and subsequently monitors performance against it. It also advises the Governing

## REPORT OF THE GOVERNING BODY

for the year ended 31 December 2012

Body, as required, on other financial and risk matters.

The routine management of the Institute's activities is undertaken by its Director, aided by the Administrator and the Accountant. All staff work from home.

### **Risk Management**

The Trustees assess the risks facing the Institute and review the effectiveness of the controls to monitor and mitigate against them. A Risk Management Register is maintained and formally reviewed annually by the Governing Body.

The key controls used by the Institute include:

- Formal agendas for all Governing Body meetings
- Strategic planning, budgeting and management accounting
- Formal written policies
- Clear authorisation and approval levels
- Regular review of Fellows' scientific reports

The specific risk of bribery associated with any of the Institute's activities has been reviewed and clear policies and procedures have been developed and communicated to all Trustees, staff and Members.

The principal risk facing the Institute lies in its ability to maintain and protect the value in real terms of its investments and to generate from them on a long term basis a consistently high overall return.

This risk is mitigated by:

- the Institute's appointment of experienced fund managers with a proven track record;
- internal controls that allow close and regular monitoring of their performance against benchmarks;
- the Institute's requirement of its fund managers to re-tender periodically and competitively for appointment – such a review took place in October; and
- regular meetings that formally review investment performance and policy and include one-to-one presentations by the fund managers.

### **Objectives and activities**

The statutory Object of the Institute is to further understanding and progress in preventive medicine by promoting excellence in biomedical research in the UK.

When founded in 1891, the Institute sought to

achieve this objective by establishing a research institute specialising in the area of 'infections' and their prevention by immunisation and other means. It complemented the research activities by the production and supply of materials such as vaccines and toxins.

The Institute continued in this mode until the late 1970s when increasing financial and regulatory pressures caused the cessation of these activities. Proceeds from the resultant sale of land and buildings created the funds from which present-day activities are financed; at 31 December 2012 these funds stood at £33.965m. From the 1980s the Institute has pursued its objective by the provision of grant funding to facilitate the research and careers of high quality individuals working in areas of biomedicine relevant to preventive medicine. It has done this because it believes that the acquisition and advancement of knowledge is crucial to the understanding of health and disease and that research to achieve this is driven forward by high quality individuals and their supporting staff.

### **Principal activities**

In pursuance of this objective, during 2012 the Institute awarded three new Prize Fellowships. In addition, the Institute has continued its Summer Studentship scheme which enables up to twenty undergraduates per year to work with Lister Fellows or former Fellows in order to gain experience of biomedical research with the hope that they might consider it as a career.

### **Achievement and Performance**

The Scientific Advisory Committee has monitored the performance of the current eighteen Lister Prize Fellows, through detailed review of the annual reports on their research which include details of all publications and presentations. The Scientific Advisory Committee has reported to Trustees that it is of the view that all Fellows are undertaking high quality research and producing new knowledge that will contribute significantly to our understanding of disease, its causes, treatment and prevention. The reports of the research undertaken by the Summer Students have also been reviewed and found to be very satisfactory.

## REPORT OF THE GOVERNING BODY

for the year ended 31 December 2012

Three Lister Prize Fellowships were awarded in 2012 to Drs Komander, Lyons and Reddy from a field of 64 initial applicants, following extensive scientific review of their applications and final interview by the Scientific Advisory Committee. (More details of the Prize Fellows and their research are provided on page 6). Each Prize Fellowship provides £200,000 which may be spent over five years on the recipient's research, although the funds are provided to the host institution at the commencement of the award.

Twenty Summer Studentships were awarded in 2012, each is a £2,000 student bursary and is paid to the host institution at the commencement of the award for the support of the student for up to a ten-week period.

The Institute maintained its commitment to fostering scientific interchange and collaboration within the Fellowship by holding its 28th Annual Research Fellowship meeting at Christ's College, Cambridge.

### **Public Benefit**

In so far as the statutory objectives, aims and activities of The Lister Institute of Preventive Medicine are to further understanding in preventive medicine by promoting biomedical research as set out on page 13 and 14 of this Report, the Trustees are satisfied that they fully comply with the duty in section 17 of the Charities Act 2011, namely to have due regard to the public benefit guidance published by the Charity Commission.

The public benefit of the Institute's grant-making is clearly identifiable in the 'Achievement and Performance' paragraphs above and in the list of Research Prize Fellows together with their areas of research on pages 7 and 8 of the Chairman's report. All Lister Fellows are actively encouraged, where appropriate, to develop their research findings for potential public benefit and the Scientific Advisory Committee has regard to this when reviewing their research reports. The Lister Institute therefore benefits the public or a sector of it without imposing any restrictions. Applications from individuals are only accepted when demonstrably consistent with the charitable objectives of the Institute.

### **Impact**

The impact of the activities of a medical research charity can be measured at many levels ranging from the growth of knowledge to direct patient/public benefit. Often the transition from the former to the latter may take many years and the involvement of several organisations. The Institute requires that the results of the research it supports are published and disseminated; that, where appropriate, significant intellectual property is protected via patents; and that its commercial development is encouraged. Several biotechnology companies have been formed around the findings of Institute-sponsored research and there are several interactions with large pharmaceutical companies. A prime example of the impact of research is DNA fingerprinting, which was discovered by Sir Alec Jeffries when a Lister Fellow and has become an indelible part of society, helping to prove innocence or guilt in criminal cases, resolving immigration arguments and clarifying paternity.

### **Investment policy and performance**

The Institute's investment objective is to develop and maintain its financial resources through the selection of investments, consistent with an acceptable level of risk.

The Institute's investment portfolio is split between Schroders and Co Limited (Schroders Charities) and Partners Capital LLP who both operate under mandates agreed in advance with the Finance and Investment Committee. These mandates set out an overall target asset allocation with allowable ranges for each category of asset. In line with Institute policy, Schroders and Partners Capital were asked to re-tender in October and were reviewed competitively alongside two other firms; both were re-appointed.

Both investment advisors invest on a total returns basis through a variety of pooled funds and in accordance with the Institute's 'Investment Policy Statement' which states the overall investment objective and sets the investment return objectives, the risk parameters, the performance measures and review procedures for the portfolio. The investment advisors are informed at the beginning of the financial year of the Institute's likely cash requirements, both in terms of the amount and the timing of any draw-down, and are

## REPORT OF THE GOVERNING BODY

for the year ended 31 December 2012

asked to keep in an income or cash account sufficient funds to meet them. The Institute has in place an ethical investment policy which does not permit direct investment in tobacco or tobacco-related companies.

The Institute's overall financial return objective is to preserve and if possible enhance the purchasing power of its portfolio assets, net of costs and approved withdrawals, over rolling three-year periods. This goal is synonymous with the pursuit of a time-weighted net return on portfolio assets that equals and if possible exceeds cost inflation as measured by the UK Consumer Price Index plus the Institute's long-term spending rate of 3-4% measured over corresponding three-year periods.

The performance of the investment portfolio is reviewed by the Finance and Investment Committee, which had two meetings in the year with the investment advisors to review performance, liquidity within the portfolio, and the due diligence undertaken on potential new investment vehicles. In addition, the Institute receives detailed quarterly valuation and transaction reports. In a year that saw modest stock market growth, the fund has risen from £31.802m to £33.965m including withdrawals of £1.000m.

More details of the Institute's activities are set out in the Chairman's Report on pages 3 to 11.

### FINANCIAL REVIEW

#### *Allocation of resources*

The Institute, which does not seek to raise funds from the public, depends primarily on investment returns to meet its pension provision payments, administrative expenditure and expenditure in furtherance of the Charity's objectives. The total return on investments for the year was realised/unrealised gains of £2.949m and investment income of £334,000.

The resources expended totalled £902,000 of which £757,000 was resources expended for the Institute's charitable activities.

As the Prize Fellowships are fixed sum awards, expenditure can be regulated by altering the number and/or value of prizes awarded each year. This will be done in light of the income and realised/unrealised gains generated from our investment portfolio. This

will be sensitive to the performance of our investments and will be reviewed annually before fresh commitments are made. In the year, despite the rising value of the investment portfolio and returns, but conscious of the continuing economic uncertainties, the Trustees felt it prudent to continue the award of three Prizes and to maintain their value at £200,000 each. The Summer Studentship scheme at a total cost of £40,000 can be reviewed each year with regard to both number and value.

#### *Reserves policy*

The policy of the Trustees is to maintain adequate financial resources to provide income to meet current and future commitments as they fall due and ensure that adequate funds remain available to enable them to make awards in perpetuity.

The adequacy of the level of reserves and the continuing appropriateness of the policy are reviewed on an annual basis by the Trustees. As the current level of investments approaches the high of 2007 they feel satisfied with the policy over the long-term and the ability of the Institute to maintain appropriate levels of activity in the short-term.

#### *Plans for the future*

The Institute's future policy is to continue to pursue its current objectives. It will therefore maintain the Prize Fellowship scheme which it sees as a funding priority. The Summer Studentship scheme will also be maintained together with the opportunity for schools to receive talks from the Institute's Fellowship on science and biomedical subjects as part of an 'outreach' programme.

#### *Statement of Trustee responsibilities*

The Trustees (who are also directors of The Lister Institute of Preventive Medicine 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

## REPORT OF THE GOVERNING BODY

for the year ended 31 December 2011

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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 SORP;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable UK accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements; 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 proper 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.

In so far as the Trustees are aware:

- there is no relevant audit information of which the charitable company's auditor is unaware;
- 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.

By Order of the Governing Body

ALEX F MARKHAM  
*Chairman*

MICHAEL FRENCH  
*Treasurer*

24 June 2013

## INDEPENDENT AUDITORS' REPORT

to the Members of The Lister Institute of Preventive Medicine

We have audited the financial statements of The Lister Institute of Preventive Medicine for the year ended 31 December 2012 which comprise the Statement of Financial Activities, the Balance Sheet and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

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

### **Respective responsibilities of trustees and auditor**

As explained more fully in the Trustees' Responsibilities Statement, the Trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

### **Scope of the audit of the financial statements**

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the charitable company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Trustees; and the overall presentation of the financial statements. In addition, we read all the financial and non-financial information in the Annual Report to identify material

inconsistencies with the audited financial statements. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

### **Opinion on financial statements**

In our opinion the financial statements:

- give a true and fair view of the state of the charitable company's affairs as at 31 December 2012 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

### **Opinion on other matters prescribed by the Companies Act 2006**

In our opinion the information given in the Trustees' Annual Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

### **Matters on which we are required to report by exception**

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

Nicholas Brooks (Senior Statutory Auditor)  
for and on behalf of Kingston Smith LLP  
Statutory Auditor  
London EC1M 7AD  
24 June 2013

## STATEMENT OF FINANCIAL ACTIVITIES

for the year ended 31 December 2012

	Notes	2012 £'000	2011 £'000
<b>Incoming resources</b>			
Incoming resource from generated funds:			
Investment income	2	334	331
Other incoming resources	3	9	9
<b>Total incoming resources</b>		<b>343</b>	<b>340</b>
<b>Resources expended</b>			
Costs of generating funds:			
Investment management costs	4	(120)	(120)
Charitable Activities:			
Prizes & Summer Studentships	6	(757)	(773)
Governance costs	8	(25)	(28)
<b>Total resources expended</b>		<b>(902)</b>	<b>(921)</b>
<b>Net expenditure</b>		<b>(559)</b>	<b>(581)</b>
<b>Gains/ (losses on investment assets)</b>		<b>2,949</b>	<b>(1,186)</b>
<b>Pension actuarial (losses)/ gains</b>	13	<b>(4)</b>	<b>117</b>
<b>Net movement in funds</b>		<b>2,386</b>	<b>(1,650)</b>
Total funds brought forward		31,615	33,265
<b>Total funds carried forward</b>		<b>34,001</b>	<b>31,615</b>

All items in the above Statement of Financial Activities relate to continuing operations for both years. The Institute has no other recognised gains and losses other than as stated above and hence no separate income and expenditure statement has been shown.

The notes set out on pages 20 to 24 form part of these financial statements.



## BALANCE SHEET

as at 31 December 2012

Company no. 34479

	Notes	2012 £'000	2011 £'000
<i>Fixed assets</i>			
Investments	9	33,965	31,802
<b>Total fixed assets</b>		<b>33,965</b>	<b>31,802</b>
<i>Current assets</i>			
Debtors	10	14	17
Cash at bank and in hand	11	241	231
<b>Total current assets</b>		<b>255</b>	<b>248</b>
<i>Current liabilities</i>			
Creditors: amounts falling due within one year	12	(28)	(233)
<b>Net current assets</b>		<b>227</b>	<b>15</b>
<b>Total assets less current liabilities</b>		<b>34,192</b>	<b>31,817</b>
<i>Creditors: amounts falling due after more than one year</i>			
Pension provision	13	(191)	(202)
<b>Net assets</b>		<b>34,001</b>	<b>31,615</b>
<i>represented by</i>			
Unrestricted funds		34,001	31,615
<b>Total charity funds</b>		<b>34,001</b>	<b>31,615</b>

The Trustees have taken advantage of the exemptions conferred by the Companies Act 2006, on the grounds that the Institute is entitled to the benefit of those exemptions as a small company.

These financial statements were approved by the Governing Body on 24 June 2013

ALEX F MARKHAM	Members of the Governing Body
MICHAEL FRENCH	

The notes set out on pages 20 to 24 form part of these financial statements.

## NOTES TO THE FINANCIAL STATEMENTS

for the year ended 31 December 2012

### I PRINCIPAL ACCOUNTING POLICIES

#### **Basis of preparation**

The Financial Statements have been prepared in accordance with the Statement of Recommended Practice, Accounting and Reporting by Charities (SORP 2005), applicable accounting standards and the Companies Act 2006. The Financial Statements are prepared in accordance with the historical cost convention modified by the revaluation of investments. The principal accounting policies adopted in the preparation of the Financial Statements are as follows:

#### **Incoming resources**

All incoming resources are accounted for on a receivable basis.

#### **Prizes and grants**

The cost of Research Prize Fellowships is charged in the year awarded.

#### **Resources Expended**

The costs of generating funds include those fees payable to the Institute's investment fund managers for the management of the Institute's investment portfolio. These are accounted for on an accruals basis. Charitable expenditure comprises all expenditure directly relating to the objects of the charity and is accounted for on an accruals basis. The allocation of expenditure between governance and management, administration and support costs is reviewed on an annual basis to ensure the allocation is appropriate. Indirect costs are generally treated as falling into the latter category with the exception of a proportion of salary and related costs which have been classified as governance costs.

#### **Governance costs**

In addition to auditor's remuneration, governance costs comprise the proportion of staff costs associated with the time spent on the preparation of the statutory accounts and other governance issues together with honoraria remuneration provided to members of the Institute's Scientific Advisory Committee for their duties in selecting the Prize Fellows.

#### **Supplementary pensions and staff pensions**

An estimate of the full provision is made in the Financial Statements for the costs of future supplementary payments. The provision and charge to income are reviewed annually by the Trustees in the knowledge that the number of persons receiving the supplementary pensions will not increase. The pension costs are assessed in accordance with actuarial advice and these costs are accounted for in accordance with FRS17. Existing employees participate in a defined contribution scheme, the costs of which are expensed as incurred. These disclosures are made in accordance with FRS17.

#### **Investments**

Investments are shown at market value in the balance sheet. Changes in the market value are included in the Statement of Financial Activities as realised and unrealised investment gains or losses in the year in which they arise. Investments denominated in foreign currencies are valued at year-end rates of exchange.

#### **Cash flow statement**

The Charity has taken advantage of the exemption provided by Financial Reporting Standard No 1 for small charities from the obligation to prepare a cash flow statement.

#### **Taxation**

The organisation is a registered charity and has obtained exemptions from taxation under Part II, Chapter 3 of the Corporation Tax Act 2010. This exemption will remain as long as income is compatible with that section and expenditure is applied to charitable purposes only.

## 2 INVESTMENT INCOME

	2012	2011
	£'000	£'000
Income from fixed asset investments	333	330
Bank interest receivable	1	1
	<b>334</b>	<b>331</b>

## 3 OTHER INCOMING RESOURCES

	2012	2011
	£'000	£'000
Royalty income	9	9

## 4 COSTS OF GENERATING FUNDS

	2012	2011
	£'000	£'000
Partners Capital LLP	53	55
Schroders & Company Ltd	67	65
Total investment management fees	<b>120</b>	<b>120</b>

Investment management fees referred to here are those accrued fees relating to the management of the Institute's investment portfolios in 2012.

## 5 GOVERNING BODY AND STAFF COSTS

### Emoluments of members of the Governing Body

No member of the Governing Body received any emoluments in respect of services to the Institute during the year (2011: nil). Travel expenses of £1,512 were paid relating to the claims of seven members in connection with their attendance at meetings (2011: £1,470, six members).

Members of the Governing Body who are also members of the Scientific Advisory Committee receive remuneration in relation to their services to the committee. Remuneration of £1,875 (2011: £1,875) was paid to one of the members.

### Employee information

The average number of persons employed by the Institute during the year was three (2011: three), two of whom are part-time. All were employed in an administrative and support capacity. No employees earn over £60k p.a. (2011: nil).

### Staff costs

	2012	2011
	£'000	£'000
Gross salaries	73	71
Pension contributions	3	3
Employer's national insurance	7	7
	<b>83</b>	<b>81</b>

The salary costs are allocated under governance where related to statutory accounts preparation, the balance being reported within support costs.

**6 PRIZES & SUMMER STUDENTSHIPS**

	2012	2011
	£'000	£'000
Prize awards	600	600
Summer Studentship payments	40	42
Support costs (see Note 7)	44	60
Salaries (see Note 5)	73	71
	757	773

**7 SUPPORT COSTS**

	2012	2011
	£'000	£'000
Office expenses	7	10
Travel expenses	3	4
Professional fees	6	10
Honoraria and events	19	19
Pension costs (see Note 13)	9	17
	44	60

These costs are all considered to be costs to support resources expended on charitable activities.

**8 GOVERNANCE COSTS**

	2012	2011
	£'000	£'000
Auditors' remuneration	9	12
Staff costs	10	10
Honoraria and events	6	6
	25	28

No non-audit services were provided by the auditors during the year (2011: none).

## 9 INVESTMENTS

Listed investments are valued at middle market quotations ruling at the year-end

	2012	2011
	£'000	£'000
Market value at beginning of year	31,802	33,344
Purchases during the year at cost	985	4,109
Proceeds of sales during the year	(4,460)	(4,978)
Reinvested income for the year	161	195
Movement in un-invested cash	2,527	318
Cash withdrawn	(1,000)	(580)
Net change in market value	3,950	(606)
Market value at year-end	33,965	31,802

The portfolio's asset allocation was as follows:

	2012	2011
	£'000	£'000
<i>UK investments</i>		
Equities	7,092	6,523
Fixed interest	1,318	1,264
Other (including private equity, property, commodities and alternatives)	2,805	4,008
Cash	1,712	160
Total UK investments	12,927	11,955
<i>Non-UK investments</i>		
Equities	13,299	12,301
Fixed interest	1,081	1,484
Other (including private equity, property, commodities and alternatives)	6,135	5,715
Cash	523	347
Total non-UK investments	21,038	19,847
Total	33,965	31,802

At 31 December 2012 no single shareholding exceeded 5% of the total value of investments (2011: none). Historical cost, related to the closing position of 2012, was £26.9m (2011: £30.6m).

## 10 DEBTORS

	2012	2011
	£'000	£'000
Accrued income	14	17

## 11 CASH

	2012	2011
	£'000	£'000
Cash at bank	241	231

## 12 CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	2012	2011
	£'000	£'000
Taxation and social security	3	3
Accruals and deferred expenditure	25	230
Total creditors falling due within one year	28	233

## 13 PROVISION FOR LIABILITIES AND CHARGES

This represents a provision for future supplementary pension payments, in respect of ex-employees, based on their salary and length of service. The pensions are unfunded, with payments made out of the Institute's funds as they fall due.

Movements in the pension provision during the year were as below:

	2012	2011
	£'000	£'000
Liability at beginning of period	202	331
Plus interest cost	9	17
Plus actuarial gains and losses	4	(117)
Benefits paid	(24)	(29)
Liability at end of period	191	202

The tables below state the FRS17 actuarial assumptions used to estimate the pension provision.

### Principal actuarial assumptions

Valuation at 31 December 2012

	2012	2011
Rate of increase to pensions in payment	3.0%	2.7%
Rate used to discount scheme liabilities	5.0%	4.6%

The post-retirement mortality assumption uses the PCA00 base tables (year of birth) with improvements equal to medium cohort with a 1% minimum.

## 14 RELATED PARTY TRANSACTIONS

There were no related party transactions in the year (2011: none).







**ANNUAL REPORT AND FINANCIAL STATEMENTS**  
for the year ended 31 December

**2013**

The Institute was founded in 1891 and for the next 80 years played a vital role in the development of the laboratory aspects of preventive medicine as an independent research institute in the UK.

Financial pressures in the 1970s led to the closure of the research and production facilities and the conversion of the Lister Institute into a highly successful trust awarding prestigious Research Fellowships from 1982 which in 2003, again because of financial pressures, were revised to become Prize Fellowships.

The cover portrait of Lord Lister reproduced by courtesy of the Royal Veterinary College

## LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2013

### THE GOVERNING BODY

Professor Sir Alex Markham, DSc, FRCP, FRCPath, FMedSci, *Chairman*

Mr Michael French, BSc (Eng), FCA, *Hon Treasurer*

Professor Wendy Bickmore, BA, PhD, FMedSci, FRSE (*Appointed 6 September 2013*)

Professor Janet Darbyshire, CBE, FRCP, FFPH, FMedSci

Professor Dame Kay Davies, CBE, DBE, MA, DPhil, FMedSci, FRCP(hon), FRCPath, FRS

Hon Rory M B Guinness

Professor Douglas Higgs, MBBS, MRCPATH, DSc, FRCP, FRCPath, FRS

Mr Andrew Hutton, MA, CFA

Professor Sir Alec J Jeffreys, DPhil, FMedSci, FRS

Professor Patrick Maxwell, FRCP, FMedSci

Professor Tony Minson, PhD, FMedSci

Mr Matthew Pintus, BA

Professor Geoffrey L Smith, PhD, FMedSci, FRS (*Retired 6 September 2013*)

Professor Cheryl A Tickle, CBE, FRSE, FMedSci, FRS

### SENIOR MANAGEMENT

*Secretary and Director:* Dr Trevor A Hince, PhD

#### *Business Address*

PO Box 1083  
Bushey  
Hertfordshire WD23 9AG

#### *Registered Office*

Macfarlanes  
10 Norwich Street  
London EC4A 1BD

#### *Solicitors*

Macfarlanes  
20 Cursitor Street  
London EC4A 1LT

#### *Investment Advisors*

Schroder & Co Limited  
12 Moorgate  
London EC2R 6DA

#### *Bankers*

Messrs Coutts & Co  
St Martins Office  
440 Strand  
London WC2R 0QS

#### *Partners Capital LLP*

5 Young Street  
London W8 5EH

#### *Auditors*

Kingston Smith LLP  
Devonshire House  
60 Goswell Road  
London EC1M 7AD

*Website:* [www.lister-institute.org.uk](http://www.lister-institute.org.uk)  
*Telephone:* 01923 801886

## LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2013

### THE SCIENTIFIC ADVISORY COMMITTEE

Professor Patrick Maxwell, FRCP, FMedSci, *Chairman*

Dr Ian Adams, BSc, PhD (*Appointed 6 September 2013*)

Professor Wendy Bickmore, BA, PhD, FMedSci, FRSE (*Retired 6 September 2013*)

Professor Jon Cohen, FRCP, FMedSci

Professor Mary Collins, PhD, FMedSci

Professor William Deakin, PhD, FRCPsych, FMedSci

Professor Annette C Dolphin, PhD

Professor David Holden, FMedSci, FRS

Professor John Iredale, FRCP, FMedSci, FRSE

Professor Nick Lemoine, MD, PhD, FRCPsych, FMedSci

Professor Kate Storey, PhD, FRSE

Professor Jonathan Waltho, BSc, PhD

*Secretary:* Dr Trevor A Hince, PhD

### THE FINANCE AND INVESTMENT COMMITTEE

Mr Michael French, BSc (Eng), FCA, *Chairman*

Hon Rory M B Guinness

Mr Andrew Hutton, MA, CFA

Professor Sir Alex Markham, DSc, FRCP, FRCPsych, FMedSci

Professor Tony Minson, PhD, FMedSci

Mr Matthew Pintus, BA

*Secretary:* Dr Trevor A Hince, PhD

## CHAIRMAN'S ANNUAL REPORT

for the year ended 31 December 2013

I DESCRIBED LAST YEAR as one of 'quiet consolidation' but I am very pleased to report that the year 2013 has been one of growth and development on several fronts. The improved performance of stock markets worldwide enabled the Institute's investments to grow by over £3m and to close the year at £37.250m. This gave confidence to the Governing Body and we were able to award four Research Prize Fellowships and increase the number of Summer Studentships. The Institute's new website was launched and with it a new logo and 'strap-line'. The working relationships with our two investment advisors were further developed via a revised 'Investment Policy Statement' and our new auditors are getting to know the Institute. On the scientific front, the Institute's Fellows and former Fellows have continued to undertake excellent research and been rewarded and recognised for it both within their own institutions and nationally with many promotions and two former Fellows being elected to the Royal Society.

The Institute's philosophy of supporting research through the identification of top-quality individuals and then helping them to develop their activities is as strong today, via the Prize Fellowship scheme, as it was in 1982 when the first Senior Fellowships were awarded. Of course, the Institute is no longer able to provide the five-year personal support of the original Fellowships but we hope that the current provision of additional unrestricted funds to high quality researchers gives them the freedom to develop areas of their research in whatever way suits them best. We think that what we are trying to achieve is encapsulated in the Institute's new strap-line – 'Nurturing the future leaders in biomedical research'.

## Governing Body and Administrative Matters

### Governing Body and Administration

The Governing Body has met twice during the year and I must pay tribute to the quality and dedication of its members. It is therefore very sad when we have to say 'goodbye' to one of our colleagues and this was especially true this year when Professor Geoffrey Smith stood down. Geoffrey had been a member of the Governing Body since 2003, having been prevailed upon to stay for a second term, but his association with the Institute started in 1988 when he was awarded the Institute's Jenner Fellowship; and I think his commitment to the

Institute has never wavered since then! He was a wonderful member of the Governing Body with thoughtful advice, ideas and enthusiasm for all that the Institute does. In his place it is a pleasure to welcome Professor Wendy Bickmore, who was a Fellow from 1991 to 1996, and has just completed six years on the Institute's Scientific Advisory Committee yet was enthusiastic about joining the Governing Body! Her knowledge of assessing applications for the Prize Fellowships will be invaluable to the Governing Body as we have discussions about the future development of the scheme. Finally, it is with some relief that the Institute persuaded Mr Andrew Hutton to serve for a further term since his knowledge and expertise is vital in assessing the performance of our investments and the relationship with both Schroders and Partners Capital.

The Institute continues to be run very smoothly by Trevor Hince, Naomi King and Jacky Wilson and on behalf of the Governing Body, and members of the Scientific Advisory Committee, I thank them for making our tasks that much easier.

## Institute Membership

Six Prize Fellows, Dr Simon Bullock, Dr Vincenzo Costanzo, Professor Rebecca Fitzgerald, Dr Holger Gerhardt, Dr Juan Martin-Serrano and Dr Fiona Wardle, who completed their fellowships in 2013, have been welcomed into membership. The Institute is also very pleased that six members of the Scientific Advisory Committee, having completed one year, have accepted membership. They are: Professors Jon Cohen, William Deakin, Annette Dolphin, John Iredale, Nick Lemoine and Kate Storey.

## Financial Matters

Following the increase in the value of the Institute's portfolio last year, it is particularly pleasing to report a further rise of £3.285m this year, bringing the year-end balance of the fund to £37.250m. This steady growth gave comfort to the Governing Body who felt able to agree the award of four Prize Fellowships (£800,000) and 21 Summer Studentships (£42,000) – whilst the Institute's operational costs (excluding investment management costs) remained low at £147,000. The Institute's total expenditure in 2013 was £1.169m. Despite these pleasing figures there is still a need for caution as worldwide economic growth is very uneven and the performance of markets far from predictable such that it would be rash to plan

future expenditures on more than a three percent return in real terms.

The Institute has again met regularly with our investment advisors Partners Capital and Schroders and also took the opportunity to review its Investment Policy Statement (IPS), which both sets out our broad investment requirements and gives the detailed parameters for each of the advisors. After discussion and major input from Andrew Hutton, for which the Institute is extremely grateful, we now have in place an over-arching IPS for the Lister and two 'tailor-made' versions for Partners Capital and Schroders. As always, the Institute is indebted to Michael French and all members of the Finance and Investment Committee and I should like to thank them for all their hard work and oversight which provides tremendous reassurance to me as Chairman.

At the beginning of the year the Institute formally changed its auditors, and we look forward to our association with Nicholas Brooks and his team at Kingston Smith LLP, although because of the time-scale for production of the year-end report and accounts they did audit the 2012 figures. The change in auditors brought to a close a very long and happy relationship with PricewaterhouseCoopers, who over many years have provided great support to the Institute, yet it became clear to both parties that PwC's capabilities and expertise were no longer matched by the Institute's modest requirements.

Further details on the Institute's finances may be found on pages 19 and 20, and are summarised in the Statement of Financial Activities on page 24.

## Scientific Activities

### Scientific Advisory Committee

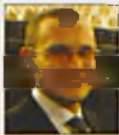



As I indicated last year, the Institute welcomed a number of new members to the Scientific Advisory Committee (SAC) in 2012 and this was the first year that they worked together, under the chairmanship of Professor Patrick Maxwell, to select the 2013 Prize Fellows and, as anticipated, did an excellent job. There were over 60 applicants and the concerns expressed last year about the number of female researchers coming forward were allayed with 40% originating from women and a similar percentage making it to the long-list. After an extensive review process, involving the acquisition of views from national and international experts, the SAC identified nine candidates for interview. Faced with young

researchers of exceptional quality and wide-ranging areas of research, selecting the actual prize-winners was a daunting task, but the SAC came up with four very worthy candidates. Recognising this, the Governing Body agreed the award of four Prize Fellowships: two to female and two to male researchers. The excellence of the winners was made clear to the whole Institute when the new Prize Fellows spoke about their research at the Fellows' meeting. Both the Institute and I are indebted to Patrick Maxwell and his 'new team' for all their hard work and excellent choices.

Finally, I should offer particular thanks to Professor Wendy Bickmore as she steps down from the SAC (to join the Governing Body) and welcome Dr Ian Adams, a former fellow and also from the University of Edinburgh, as her replacement.

## 2013 Lister Research Prize Fellowship Winners

The recipients of the 2013 Lister Research Prize Fellowships, who each received the award of £200,000, were:

<i>Prize Winner</i>	<i>Title of Research</i>
 <p><b>Dr Simon Draper</b> The Jenner Institute, Oxford</p>	Development of next-generation broadly-neutralising vaccines against the blood stage infection of human malarial parasites
 <p><b>Dr Sherif El-Khamisy</b> University of Sheffield</p>	The repair of oxidative and topoisomerase induced chromosomal strand breaks and human disease
 <p><b>Dr Tatjana Sauka-Spengler</b> Weatherall Institute of Molecular Medicine, Oxford</p>	Decoding gene regulatory circuits controlling multi-potency of neural crest
 <p><b>Dr Anne Straube</b> University of Warwick</p>	Microtubule-actin crosstalk in cell migration



## Current and Former Lister Prize Fellows

The following have been awarded Lister Research Prize Fellowships since the inception of the Prize Fellowship scheme. This is an outstanding group of scientists and represents a major contribution to the well-being of UK biomedical research:

<i>Fellow</i>	<i>Title of Research</i>	<i>Awarded</i>
<b>Dr Nina Balthasar</b> University of Bristol	Identifying the novel CREB coactivator TORC2's role in the hypothalamic pathways controlling energy homeostasis	2007
<b>Dr Oliver Billker</b> The Wellcome Trust Sanger Institute	In search of the xanthurenic acid receptor of malaria parasites – a potential target for transmission control	2004
<b>Dr Nia Bryant</b> University of York	Using yeast as a model system to understand the insulin-dependent trafficking of GLUT4 in adipocytes	2004
<b>Dr Simon Bullock</b> MRC Laboratory of Molecular Biology, Cambridge	Mechanisms and neuronal functions of motor-driven transport	2008
<b>Dr Juan Burrone</b> Kings College London	The role of neuronal activity during synapse formation	2009
<b>Dr Vincenzo Costanzo</b> Cancer Research UK Clare Hall Laboratories	The role of ATM and ATR in preventing genomic instability	2006
<b>Dr Victoria Cowling</b> University of Dundee	Regulation and function of the 7-methylguanosine cap	2011
<b>Professor Daniel Davis</b> Imperial College London	Nanotubes and synapses in immune cell communication	2005
<b>Dr Michael Eddleston</b> University of Edinburgh	Prevention of deaths from late respiratory failure in organo-phosphorus pesticide poisoning	2011
<b>Prof Rebecca Fitzgerald</b> University of Cambridge	Translational research programme for prevention of oesophageal adenocarcinoma	2008
<b>Dr Holger Gerhardt</b> Cancer Research UK London Research Institute	Endothelial guidance in vascular patterning	2008

*Continued overleaf*

<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Dr Fiona Gribble</b> University of Cambridge	Secretion of incretin hormones from the mouse intestine	2006
<b>Dr Andrew Jackson</b> University of Edinburgh	Cellular pathways determining human brain size	2009
<b>Dr Josef Kittler</b> University College London	Miro family proteins as regulators of synaptic bio-energetics and a locus for mitochondrial dysfunction in neurological disease	2010
<b>Dr Robert Klose</b> University of Oxford	Biochemical isolation and functional dissection of the CpG island proteome	2011
<b>Dr David Komander</b> MRC Laboratory of Molecular Biology Cambridge	Bacterial interference with the ubiquitin system	2012
<b>Prof Paul Lehner</b> University of Cambridge	The role of HSP70 in MHC Class 1 mediated antigen presentation in human dendritic cells	2004
<b>Dr David Lyons</b> University of Edinburgh	Elucidating mechanisms of myelinated axon formation, function and repair using zebrafish	2012
<b>Dr Juan Martin-Serrano</b> King's College London	Functional parallels between HIV-1 budding and the last step of cell division	2008
<b>Dr Robin May</b> University of Birmingham	The molecular basis of latency and dissemination during cryptococcosis	2010
<b>Dr Akhilesh Reddy</b> University of Cambridge	Peroxisomes and redox oscillations in the circadian (24 hour) clockwork	2012
<b>Prof Kenneth Smith</b> University of Cambridge	Control of infection and autoimmunity by an inhibitory Fc receptor FcγR11b	2007
<b>Dr Grant Stewart</b> University of Birmingham	Investigating the role of the RIDDLE syndrome gene in promoting repair of DNA damage	2009
<b>Prof Tomoyuki Tanaka</b> University of Dundee	Mechanisms of kinetochore-microtubule interaction	2005
<b>Dr Sarah Teichmann</b> The Wellcome Trust Sanger Institute and EMBL-EBI, Cambridge	Decoding genetic switches in T helper cell differentiation	2010

*Continued opposite*

<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Professor Chris Thompson</b> University of Manchester	Identifying and characterising genes that control cell fate choice and social behaviour	2005
<b>Professor Daan van Aalten</b> University of Dundee	Structural mechanisms and specificity of O-GlcNAc signalling in the eukaryotic cell	2006
<b>Dr Fiona Wardle</b> Kings College London	Transcriptional control of mesodermal cell differentiation in vertebrates	2007

## Fellowship Activities

The Institute's annual Fellows' meeting was held at Christ's College Cambridge and the warm September sunshine, the ambience of the location and not least the excellence of the science, combined to provide an enjoyable and stimulating day. As usual, the new Prize Fellows had their baptism of fire by giving the first talks of the day but impressed everybody by the quality of both their presentations and the underlying research. The topics ranged from Dr Draper's work on developing vaccines in malaria, via the repair of chromosomal and DNA damage from Dr El-Khamisy and Dr Straube talking about cell migration, to Dr Sauka-Spengler explaining the control of multipotency in the neural crest.

The other speakers and their titles were:

- Dr Alan Whitmarsh – Regulation of stress signalling
- Dr Nina Balthasar – Food for thought; an investigation into the brain's regulation of energy homeostasis
- Professor Dino Giussani – Heart disease link to fetal hypoxia and oxidative stress

The 2013 Special Lister Lecture was given by Professor Simon Kroll, a former Fellow and long-standing member of the Institute's Scientific Advisory Committee, with the intriguing title of 'I, Bi, HiB, HiBPF'. These turned out to be abbreviations for various strains of *Haemophilus influenzae* which when Professor Kroll held his Fellowship in 1986 was the commonest cause of life-threatening infections in children including meningitis. He explained that strains with the serotype *b* polysaccharide capsule were responsible for the

majority of infections and how his fellowship work had been concerned with the genetics of this capsulation and the particular virulence of the type *b* strains. Happily, the introduction of a vaccine in 1992 dramatically reduced the impact of the bacteria and Hib meningitis was rarely seen in the UK. However, in other parts of the world, particularly South America, the bacteria was prevalent and mutating to produce more virulent strains and Professor Kroll went on to discuss the worrying importance of this.

Traditionally, the meeting concluded with the Reception and Dinner, where the new Prize Fellows were presented with their scrolls and welcomed into the 'Lister family'.

2013 Research Prize winner Dr Tatjana Sauka-Spendler (*centre*) meeting Professor Ian Jackson (*left*) and Dr Andrew Jackson (*right*) at the annual Fellows' meeting at Christ's College Cambridge



## Conclusion

It is always pleasing to hear of the movements and successes of Fellows and former Fellows as they develop their careers. During the past year the University of York has had a particular attraction for Lister Fellows: Nia Bryant moved there to become Chair of Cell Biology, Peter McGlynn to take up the Anniversary Chair in Biology and Bob White to become Chair of Biochemistry. They join Dawn Coverley who was already established there in the Department of Biology and leading forward the Cizzle Biotechnology Company as its Chief Scientific Officer. There have also been movements to and from Institutes in Europe with Professor Kostas Tokalides coming to Glasgow from Crete and Dr Costanzo Vincenzo going to Milan. I am sure that there have been other moves and I hope that all Fellows and former Fellows will keep the Institute aware of changes of location and promotions. We already know of several career advancements and offer the Institute's congratulations to all who have gained Professorships, Readerships, Senior Lectureships, other promotions and awards. The Institute was particularly delighted when two former Fellows, Professor Judy Armitage and Dr Phill Hawkins, were elected as Fellows of the Royal Society, one of the highest accolades in UK science and to them I offer our warmest congratulations. It is also pleasing when former colleagues on the Governing Body are honoured and the Institute was delighted to see the many and significant contributions to medicine made by Professor Peter Ratcliffe recognised by a knighthood.

Trevor Hince and I have visited several universities in the past year to attend presentation ceremonies for the new Prize Fellows and it is always a great pleasure to see these young researchers in their home environment receiving the recognition that they deserve and to thank the host institutions for the hospitality that they extended to us.

The Institute continues to flourish and for this I thank all those people involved with it.

ALEX MARKHAM  
Chairman



Professor Sir Peter Ratcliffe



## The 2013 Annual Fellows' Meeting at Christ's College, Cambridge



Dr Rob Klose and Dr Victoria Cowling



Prof Mary Collins and Dr Stephen Inglis

Animated conversation at dinner on the occasion of the annual Fellows' meeting



Prof Robin Irvine and  
Dr Phill Hawkins



Dr Nina Balthasar and  
Dr Fiona Gribble



(l to r):  
Mr Matthew Pintus,  
Prof Sir Alex Markham  
and Mr Andrew Hutton

## REPORT OF THE GOVERNING BODY

for the year ended 31 December 2013

The Governing Body presents its Annual Report under the Charities Act 2011 together with the audited Financial Statements of the Charity for the year ended 31 December 2013. The Financial Statements have been prepared in accordance with the accounting policies set out in Note 1 (page 26) to the Financial Statements and comply with the Companies Act 2006, the requirements of the Statement of Recommended Practice 2005 "Accounting and Reporting by Charities", and the documents governing the constitution of the Charity.

### REFERENCE AND ADMINISTRATIVE DETAILS

Reference and administrative information is set out on pages 3 and 4 of this report.

#### *Members of the Governing Body, Directors and Trustees*

The members of the Governing Body are, for the purposes of company law, Directors of the Institute and, for the purposes of charity law, Trustees of the Institute and throughout this report are collectively referred to as the Trustees. Details of the Trustees serving throughout the year, unless otherwise stated, are set out on page 3.

### STRUCTURE, GOVERNANCE AND MANAGEMENT

#### *Constitution*

The Institute is registered with the Charity Commission for England and Wales (registration number 206271). It is incorporated and registered in England and Wales under the Companies Act 2006 as a company limited by guarantee and not having a share capital (company number 34479). It is governed by its Memorandum and Articles of Association and has charitable status. Appointment and re-appointment of Trustees

The Trustees are the fifteen members of the Governing Body of whom six are appointed by the members at the annual general meeting. A maximum of six further Trustees are appointed by the Governing Body and there are currently four such appointees. One additional member is Lord Iveagh's representative, another is Professor Sir Alec Jeffreys who was appointed to life-membership, and the final member, Professor Cheryll Tickle, is the representative of the Royal Society. Trustees, other than the two nominated representatives, Professor Sir Alec Jeffreys and exceptionally those appointed by the Governing Body, generally serve for a maximum of six years and a system of planned rotation is in place. When considering appointment or nomination for election as Trustees, the Governing Body has regard to the specialist skills needed.

#### *Induction and training of Trustees*

New Trustees undergo induction sessions with the Chairman, Treasurer and Director during which they will gain an understanding of the Institute's structure, activities, financial position and future strategies. Prior to appointment each of them will attend, as an 'observer', one meeting of the Governing Body. New Trustees will also be made aware of their legal obligations with regard to the charity and company law. In addition, new Trustees will be advised of appropriate literature and training courses.

#### *Organisation*

The Institute is governed by its Governing Body which is responsible for setting policies, authorising actions on all significant operational issues and ensuring legality and good practice. The Governing Body meets formally twice a year.

Specific authorities are delegated to two sub-Committees in particular areas. The Scientific Advisory Committee (see page 4 for membership) has responsibility for the selection of the



Lister Prize Fellows and the monitoring of their scientific activities, as well as providing scientific and medical advice to the Governing Body as required. The Finance and Investment Committee (see page 4 for membership) has responsibility for interaction with the Institute's investment advisors, ensuring implementation of the Institute's investment policy and monitoring performance. It prepares and submits to the Governing Body the annual budget, and subsequently monitors performance against it. It also advises the Governing Body, as required, on other financial and risk matters.

The routine management of the Institute's activities is undertaken by its Director, aided by the Administrator and the Accountant. All staff work from home.

### **Risk Management**

The Trustees assess the risks facing the Institute and review the effectiveness of the controls to monitor and mitigate against them. A Risk Management Register is maintained and formally reviewed annually by the Governing Body.

The key controls used by the Institute include:

- Formal agendas for all Governing Body meetings
- Strategic planning, budgeting and management accounting
- Formal written policies
- Clear authorisation and approval levels
- Regular review of Fellows' scientific reports

The specific risk of bribery associated with any of the Institute's activities has been reviewed and clear policies and procedures have been developed and communicated to all Trustees, staff and Members.

The Institute maintains a 'Register of Interests' for all Governing Body and committee members as well as principal staff and operates a clear declaration of interests policy and procedures

for all meetings.

The principal risk facing the Institute lies in its ability to maintain and protect the value in real terms of its investments and to generate from them on a long-term basis a consistently high overall return. This risk is mitigated by the Institute's appointment of experienced investment managers with a proven track record; by internal controls that allow close and regular monitoring of their performance against benchmarks; by the Institute's requirement of its investment managers to re-tender periodically and competitively for appointment – last review October 2012, and by regular meetings that formally review investment performance and policy and include one-to-one presentations by the investment managers.

### **Objectives and activities**

The statutory Object of the Institute is to further understanding and progress in preventive medicine by promoting excellence in biomedical research in the UK.

When founded in 1891, the Institute sought to achieve this objective by establishing a research institute specialising in the area of 'infections' and their prevention by immunisation and other means. It complemented the research activities by the production and supply of materials such as vaccines and toxins.

The Institute continued in this mode until the late 1970s when increasing financial and regulatory pressures caused the cessation of these activities. Proceeds from the resultant sale of land and buildings created the funds from which present day activities are financed; at 31 December 2013 these funds stood at £37.250m. From the 1980s the Institute has pursued its objective by the provision of grant funding to facilitate the research and careers of high quality individuals working in areas of biomedicine relevant to preventive medicine. It has done this because it

believes that the acquisition and advancement of knowledge is crucial to the understanding of health and disease and that research to achieve this is driven forward by high quality individuals and their supporting staff.

### **Principal activities**

In pursuance of this objective, during 2013 the Institute awarded four new Prize Fellowships. In addition, the Institute has continued its Summer Studentship scheme which enables up to twenty-five undergraduates per year to work with Lister Fellows or former Fellows in order to gain experience of biomedical research with the hope that they might consider it as a career.

### **Achievement and Performance**

The Scientific Advisory Committee has monitored the performance of the current 21 Lister Prize Fellows, through detailed review of the annual reports on their research which include details of all publications and presentations. The Scientific Advisory Committee has reported to Trustees that it is of the view that all Fellows are undertaking high quality research and producing new knowledge that will contribute significantly to our understanding of disease, its causes, treatment and prevention. The reports of the research undertaken by the Summer Students have also been reviewed and found to be very satisfactory.

Four Lister Prize Fellowships were awarded in 2013 to Drs Draper, El-Khamisy, Sauka-Spengler and Straube from a field of 63 initial applicants, following extensive scientific review of their applications and final interview by the Scientific Advisory Committee. (More details of the Prize Fellows and their research are provided on page 8). Each Prize Fellowship provides £200,000 which may be spent over five years on the recipient's research, although the funds are provided to the host institution at the commencement of

the award.

Twenty-one Summer Studentships were awarded in 2013, each is a £2,000 student bursary and is paid to the host institution at the commencement of the award for the support of the student for up to a ten-week period.

The Institute maintained its commitment to fostering scientific interchange and collaboration within the Fellowship by holding its 29th Annual Research Fellowship meeting at Christ's College, Cambridge.

### **Public Benefit**

In so far as the statutory objectives, aims and activities of The Lister Institute of Preventive Medicine are to further understanding in preventive medicine by promoting biomedical research as set out on page 17 of this Report, the Trustees are satisfied that they fully comply with the duty in section 17 of the Charities Act 2011, namely to have due regard to the public benefit guidance published by the Charity Commission.

The public benefit of the Institute's grant making is clearly identifiable in the 'Achievement and Performance' paragraphs above and in the list of Research Prize Fellows together with their areas of research on pages 8 to 11 of the Chairman's report. All Lister Fellows are actively encouraged, where appropriate, to develop their research findings for potential public benefit and the Scientific Advisory Committee has regard to this when reviewing their research reports. The Lister Institute therefore benefits the public or a sector of it without imposing any restrictions. Applications from individuals are accepted only when demonstrably consistent with the charitable objectives of the Institute.

### **Impact**

The impact of the activities of a medical research charity can be measured at many levels ranging

from the growth of knowledge to direct patient/public benefit. Often the transition from the former to the latter may take many years and the involvement of several organisations. The Institute requires that the results of the research it supports are published and disseminated; that, where appropriate, significant intellectual property is protected via patents; and that its commercial development is encouraged. Several biotechnology companies have been formed around the findings of Institute sponsored research and there are several interactions with large pharmaceutical companies. A prime example of the impact of research is DNA fingerprinting, which was discovered by Sir Alec Jeffries when a Lister Fellow and has become an indelible part of society, helping to prove innocence or guilt in criminal cases, resolving immigration arguments and clarifying paternity.

#### **Investment policy and performance**

The Institute's investment objective is to develop and maintain its financial resources through the selection of investments, consistent with an acceptable level of risk.

The Institute's investment portfolio is split between Schroder and Co Limited (Cazenove Capital Management) and Partners Capital LLP who both operate under mandates agreed in advance with the Finance and Investment Committee. These mandates set out an overall target asset allocation with allowable ranges for each category of asset

Both investment managers invest on a total returns basis through a variety of pooled funds and in accordance with the Institute's overarching "Investment Policy Statement" (IPS) which states the overall investment objective and sets the investment return objectives, the risk parameters, the performance measures and review procedures for the portfolio. The IPS was last reviewed in the autumn of 2013 with minor

adjustments made and specific versions agreed for each of the investment managers to reflect their individual investment approaches. The investment managers are informed at the beginning of the financial year of the Institute's likely cash requirements, both in terms of the amount and the timing of any draw-down, and are asked to keep in an income or cash account sufficient funds to meet them. The Institute has in place an ethical investment policy which does not permit direct investment in tobacco or tobacco-related companies.

The Institute's overall financial return objective is to preserve and if possible enhance the purchasing power of its portfolio assets, net of costs and approved withdrawals, over rolling three-year periods. This goal is synonymous with the pursuit of a time-weighted net return on portfolio assets that equals and if possible exceeds cost inflation as measured by the UK Consumer Price Index plus the Institute's long-term spending rate of 3-4% measured over corresponding three-year periods.

The performance of the investment portfolio is reviewed by the Finance and Investment Committee, which had two meetings in the year with the investment advisors to review performance, liquidity within the portfolio, and the due diligence undertaken on potential new investment vehicles. In addition the Institute receives detailed quarterly valuation and transaction reports. In a year that saw strong stock market growth the fund has risen from £33.965m to £37.250m including withdrawals of £1.000m.

More details of the Institute's activities are set out in the Chairman's Report on pages 5 to 13.

## **FINANCIAL REVIEW**

### **Allocation of resources**

The Institute, which does not seek to raise funds from the public, depends primarily on investment

returns to meet its pension provision payments, administrative expenditure and expenditure in furtherance of the Charity's objectives. The total return on investments for the year was realised/unrealised gains of £3.972m and investment income of £490,000.

The resources expended totalled £1.169m of which £964,000 were resources expended for the Institute's charitable activities.

As the Prize Fellowships are fixed sum awards, expenditure can be regulated by altering the number and/or value of prizes awarded each year. This will be done in light of the income and realised/unrealised gains generated from our investment portfolio. This will be sensitive to the performance of our investments and this will be reviewed annually before fresh commitments are made. In the year, due to the substantial increase in the value of the investment portfolio and good returns, the Trustees felt able to award four Prizes and to maintain their value at £200,000 each. The Summer Studentship scheme at a total cost of £42,000 can be reviewed each year with regard to both number and value.

### **Reserves policy**

The policy of the Trustees is to maintain adequate financial resources to provide income to meet current and future commitments as they fall due and ensure that adequate funds remain available to enable them to make awards in perpetuity.

The adequacy of the level of reserves and the continuing appropriateness of the policy are reviewed on an annual basis by the Trustees. As the current level of investments approaches the high of 2007 they feel satisfied with the policy over the long-term and the ability of the Institute to maintain appropriate levels of activity in the short-term.

### **Plans for the future**

The Institute's future policy is to continue to pursue its current objectives. It will therefore maintain the Prize Fellowship scheme which it sees as a funding priority. The Summer Studentship scheme will also be maintained together with the opportunity for schools to receive talks from the Institute's Fellowship on science and biomedical subjects as part of an 'outreach' programme.

### **Statement of Trustee responsibilities**

The Trustees (who are also directors of The Lister Institute of Preventive Medicine 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 SORP;
- make judgments and estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; 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 proper 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.

In so far as the Trustees are aware:

- there is no relevant audit information of which the charitable company's Auditor is unaware;
- 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.

By Order of the Governing Body

ALEX F MARKHAM  
Chairman

MICHAEL FRENCH  
Treasurer

18 June 2014

## INDEPENDENT AUDITORS' REPORT

to the Members of The Lister Institute of Preventive Medicine

We have audited the financial statements of The Lister Institute of Preventive Medicine for the year ended 31 December 2013 which comprise the Statement of Financial Activities, the Balance Sheet and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

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

### **Respective responsibilities of Trustees and Auditor**

As explained more fully in the Trustees' Responsibilities Statement, the Trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

### **Scope of the audit of the financial statements**

An audit involves obtaining evidence about the amounts and disclosures in the financial state-

ments sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the charitable company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Trustees; and the overall presentation of the financial statements. In addition we read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

### **Opinion on financial statements**

In our opinion the financial statements:

- give a true and fair view of the state of the charitable company's affairs as at 31 December 2013 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

### **Opinion on other matter prescribed by the Companies Act 2006**

In our opinion the information given in the Trustees' Annual Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

***Matters on which we are required to report by exception***

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

Nicholas Brooks (Senior Statutory Auditor)  
for and on behalf of Kingston Smith LLP,  
*Statutory Auditor*

Devonshire House  
60 Goswell Road  
London EC1M 7AD

18 June 2014

**STATEMENT OF FINANCIAL ACTIVITIES**

for the year ended 31 December 2013

	Notes	2013 £'000	2012 £'000
<b>Incoming resources</b>			
Incoming resource from generated funds:			
Investment income	2	490	334
Other incoming resources	3	9	9
<b>Total incoming resources</b>		<b>499</b>	<b>343</b>
<b>Resources expended</b>			
Costs of generating funds:			
Investment management costs	4	(180)	(120)
Charitable Activities:			
Prizes & Summer Studentships	6	(964)	(757)
Governance costs	8	(25)	(25)
<b>Total resources expended</b>		<b>(1,169)</b>	<b>(902)</b>
<b>Net expenditure</b>		<b>(670)</b>	<b>(559)</b>
<b>Gains/(losses) on investment assets</b>		<b>3,972</b>	<b>2,949</b>
<b>Pension actuarial (losses)/gains</b>	13	<b>(10)</b>	<b>(4)</b>
<b>Net movement in funds</b>		<b>3,292</b>	<b>2,386</b>
Total funds brought forward		34,001	31,615
<b>Total funds carried forward</b>		<b>37,293</b>	<b>34,001</b>

All items in the above Statement of Financial Activities relate to continuing operations for both years. The Institute has no other recognised gains and losses other than as stated above and hence no separate income and expenditure statement has been shown.

The notes set out on pages 26 to 30 form part of these financial statements.



**BALANCE SHEET**

as at 31 December 2013

Company no. 34479

	Notes	2013 £'000	2012 £'000
<b>Fixed assets</b>			
Investments	9	37,250	33,965
<b>Total fixed assets</b>		<b>37,250</b>	<b>33,965</b>
<b>Current assets</b>			
Debtors	10	8	14
Cash at bank and in hand	11	650	241
<b>Total current assets</b>		<b>658</b>	<b>255</b>
<b>Current liabilities</b>			
Creditors: amounts falling due within one year	12	(429)	(28)
<b>Net current assets</b>		<b>229</b>	<b>227</b>
<b>Total assets less current liabilities</b>		<b>37,479</b>	<b>34,192</b>
<b>Creditors: amounts falling due after more than one year</b>			
Pension provision	13	(186)	(191)
<b>Net assets</b>		<b>37,293</b>	<b>34,001</b>
represented by			
Unrestricted funds		37,293	34,001
<b>Total charity funds</b>		<b>37,293</b>	<b>34,001</b>

The Trustees have taken advantage of the exemptions conferred by the Companies Act 2006, on the grounds that the Institute is entitled to the benefit of those exemptions as a small company.

These financial statements were approved by the Governing Body on 18 June 2014.

ALEX F MARKHAM | Members of the  
MICHAEL FRENCH | Governing Body

The notes set out on pages 26 to 30 form part of these financial statements.

## NOTES TO THE FINANCIAL STATEMENTS

for the year ended 31 December 2013

### 1 PRINCIPAL ACCOUNTING POLICIES

#### ***Basis of preparation***

The Financial Statements have been prepared in accordance with the Statement of Recommended Practice, Accounting and Reporting by Charities (SORP 2005), applicable accounting standards and the Companies Act 2006. The Financial Statements are prepared in accordance with the historical cost convention modified by the revaluation of investments. The principal accounting policies adopted in the preparation of the Financial Statements are as follows:

#### ***Incoming resources***

All incoming resources are accounted for on a receivable basis.

#### ***Prizes and grants***

The cost of Research Prize Fellowships is charged in the year awarded.

#### ***Resources Expended***

The costs of generating funds include those fees payable to the Institute's investment fund managers for the management of the Institute's investment portfolio. These are accounted for on an accruals basis. Charitable expenditure comprises all expenditure directly relating to the objects of the charity and is accounted for on an accruals basis. The allocation of expenditure between governance and management, administration and support costs is reviewed on an annual basis to ensure the allocation is appropriate. Indirect costs are generally treated as falling into the latter category with the exception of a proportion of salary and related costs which have been classified as governance costs.

#### ***Governance costs***

In addition to auditor's remuneration, governance costs comprise the proportion of staff costs associated with the time spent on the preparation of the statutory accounts and other governance issues together with honoraria remuneration provided to members of the Institute's Scientific Advisory Committee for their duties in selecting the Prize Fellows.

#### ***Supplementary pensions and staff pensions***

An estimate of the full provision is made in the Financial Statements for the costs of future supplementary payments. The provision and charge to income are reviewed annually by the Trustees in the knowledge that the number of persons receiving the supplementary pensions will not increase. The pension costs are assessed in accordance with actuarial advice and these costs are accounted for in accordance with FRS17. Existing employees participate in a defined contribution scheme, the costs of which are expensed as incurred. These disclosures are made in accordance with FRS17.

#### ***Investments***

Investments are shown at market value in the balance sheet. Changes in the market value are included in the Statement of Financial Activities as realised and unrealised investment gains or losses in the year in which they arise. Investments denominated in foreign currencies are valued at year-end rates of exchange.

#### ***Cash flow statement***

The Charity has taken advantage of the exemption provided by Financial Reporting Standard No 1 for small charities from the obligation to prepare a cash flow statement.

#### ***Taxation***

The organisation is a registered charity and has obtained exemptions from taxation under Part II, Chapter 3 of the Corporation Tax Act 2010. This exemption will remain as long as income is compatible with that section and expenditure is applied to charitable purposes only.

## 2 INVESTMENT INCOME

	2013	2012
	£'000	£'000
Income from fixed asset investments	489	333
Bank interest receivable	1	1
	490	334

## 3 OTHER INCOMING RESOURCES

	2013	2012
	£'000	£'000
Royalty income	9	9

## 4 COSTS OF GENERATING FUNDS

	2013	2012
	£'000	£'000
Partners Capital LLP	93	53
Schroder & Company Ltd	87	67
	180	120

Investment management fees referred to here are those accrued fees relating to the management of the Institute's investment portfolios in 2013. The increases are due to: changes in the regulation of charging, an alteration to the VAT status, and the triggering of performance fees.

## 5 GOVERNING BODY AND STAFF COSTS

### Emoluments of members of the Governing Body

No member of the Governing Body received any emoluments in respect of services to the Institute during the year (2012: nil). Travel expenses of £1,366 were paid relating to the claims of seven members in connection with their attendance at meetings (2012: £1,512, seven members).

Members of the Governing Body who are also members of the Scientific Advisory Committee receive remuneration in relation to their services to the committee. An honorarium of £1,500 (2012: £1,875) was paid to one of the members, via the member's University, in 2013.

### Employee information

The average number of persons employed by the Institute during the year was three (2012: three), two of whom are part-time. All were employed in an administrative and support capacity. No employees earn over £60k p.a. (2012: nil).

### Staff costs

	2013	2012
	£'000	£'000
Gross salaries	76	73
Pension contributions	3	3
Employer's national insurance	8	7
	87	83

The salary costs are allocated under governance where related to statutory accounts preparation, the balance being reported within support costs.

**6 PRIZES & SUMMER STUDENTSHIPS**

	2013	2012
	£'000	£'000
Prize awards	800	600
Prize award – unspent element refunded	(1)	-
Summer Studentship payments	42	40
Support costs (see Note 7)	47	44
Salaries (see Note 5)	76	73
	964	757

**7 SUPPORT COSTS**

	2013	2012
	£'000	£'000
Office expenses	8	7
Travel expenses	4	3
Professional fees	5	6
Honoraria and events	20	19
Pension costs (see Note 13)	10	9
	47	44

These costs are all considered to be costs to support resources expended on charitable activities.

**8 GOVERNANCE COSTS**

	2013	2012
	£'000	£'000
Auditors' remuneration	10	9
Staff costs (see Note 5)	11	10
Honoraria and events	4	6
	25	25

No non-audit services were provided by the auditors during the year (2012: none).

## 9 INVESTMENTS

Listed investments are valued at middle market quotations ruling at the year-end

	2013	2012
	£'000	£'000
Market value at beginning of year	33,965	31,802
Purchases during the year at cost	9,095	985
Proceeds of sales during the year	(8,579)	(4,460)
Reinvested income for the year	310	161
Movement in un-invested cash	(513)	3,528
Cash withdrawn	(1,000)	(1,000)
Net change in market value	3,972	2,949
Market value at year-end	37,250	33,965

The portfolio's asset allocation was as follows:

	2013	2012
	£'000	£'000
<i>UK investments</i>		
Equities	9,042	7,092
Fixed interest	2,397	1,318
Other (including private equity, property, commodities and alternatives)	3,328	2,805
Cash	586	1,712
Total UK investments	15,353	12,927
<i>Non-UK investments</i>		
Equities	14,281	13,299
Fixed interest	–	1,081
Other (including private equity, property, commodities and alternatives)	7,182	6,135
Cash	434	523
Total non-UK investments	21,897	21,038
Total	37,250	33,965

At 31 December 2013 no single shareholding exceeded 5% of the total value of investments (2012: none).

Historical cost related to the closing position of 2013 was £27.1m (2012: £26.9m).

## 10 DEBTORS

	2013	2012
	£'000	£'000
Accrued income	8	14

**11 CASH**

	2013	2012
	£'000	£'000
Cash at bank	650	241

**12 CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR**

	2013	2012
	£'000	£'000
Taxation and social security	3	3
Accruals and deferred expenditure	426	25
Total creditors falling due within one year	429	28

**13 PROVISION FOR LIABILITIES AND CHARGES**

This represents a provision for future supplementary pension payments, in respect of ex-employees, based on their salary and length of service. The pensions are unfunded, with payments made out of the Institute's funds as they fall due.

Movements in the pension provision during the year were as below:

	2013	2012
	£'000	£'000
Liability at beginning of period	191	202
Plus interest cost	10	9
Plus actuarial gains and losses	10	4
Benefits paid	(25)	(24)
Liability at end of period	186	191

The tables below state the FRS17 actuarial assumptions used to estimate the pension provision.

*Principal actuarial assumptions*

Valuation at 31 December 2013

	2013	2012
Rate of increase to pensions in payment	3.0%	3.0%
Rate used to discount scheme liabilities	5.0%	5.0%

The post-retirement mortality assumption uses the PCA00 base tables (year of birth) with improvements equal to medium cohort with a 1% minimum.

**14 RELATED PARTY TRANSACTIONS**

There were no related party transactions in the year (2012: none).







## **ANNUAL REPORT AND FINANCIAL STATEMENTS**

for the year ended 31 December

# 2014



The Institute was founded in 1891 and for the next 80 years played a vital role in the development of the laboratory aspects of preventive medicine as an independent research institute in the UK.

Financial pressures in the 1970s led to the closure of the research and production facilities and the conversion of the Lister Institute into a highly successful trust awarding prestigious Research Fellowships from 1982 which in 2003, again because of financial pressures, were revised to become Prize Fellowships.

The cover portrait of Lord Lister reproduced by courtesy of the Royal Veterinary College

## LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2014

### THE GOVERNING BODY

Professor Sir Alex Markham, DSc, FRCP, FRCPath, FMedSci, *Chairman*

Mr Michael French, BSc(Eng), FCA, *Hon Treasurer*

Professor Wendy Bickmore, BA, PhD, FMedSci, FRSE

Professor Janet Darbyshire, CBE, FRCP, FFPH, FMedSci (*Resigned 10 February 2014*)

Professor Dame Kay Davies, CBE, DBE, MA, DPhil, FMedSci, FRCP(hon), FRCPath, FRS

Hon Rory M B Guinness

Professor Douglas Higgs, MBBS, MRCP, FRCPath, DSc, FRCP, FRCPath, FRS

Mr Andrew Hutton, MA, CFA

Professor Sir Alec J Jeffreys, DPhil, FMedSci, FRS

Professor Patrick Maxwell, FRCP, FMedSci

Professor Tony Minson, PhD, FMedSci

Mr Matthew Pintus, BA

Professor Cheryl A Tickle, CBE, FRSE, FMedSci, FRS

### SENIOR MANAGEMENT

*Secretary and Director:* Dr Trevor A Hince, PhD

#### *Business Address*

PO Box 1083  
Bushey  
Hertfordshire WD23 9AG

#### *Registered Office*

Macfarlanes  
10 Norwich Street  
London EC4A 1BD

#### *Solicitors*

Macfarlanes  
20 Cursitor Street  
London EC4A 1LT

#### *Investment Advisors*

Cazenove Capital Management  
12 Moorgate  
London EC2R 6DA

#### *Bankers*

Messrs Coutts & Co  
St Martins Office  
440 Strand  
London WC2R 0QS

Partners Capital LLP  
5 Young Street  
London W8 5EH

#### *Auditors*

Kingston Smith LLP  
Devonshire House  
60 Goswell Road  
London EC1M 7AD

*Website:* [www.lister-institute.org.uk](http://www.lister-institute.org.uk)

*Telephone:* 01923 801886

## LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2014

### THE SCIENTIFIC ADVISORY COMMITTEE

Professor Patrick Maxwell, FRCP, FMedSci, *Chairman*

Dr Ian Adams, BSc, PhD

Professor Jon Cohen, FRCP, FMedSci

Professor Mary Collins, PhD, FMedSci (*Retired 5 September 2014*)

Professor William Deakin, PhD, FRCPsych, FMedSci

Professor Annette C Dolphin, PhD

Professor David Holden, FMedSci, FRS

Professor Corinne Houart, PhD (*Appointed 5 September 2014*)

Professor John Iredale, FRCP, FMedSci, FRSE

Professor Nick Lemoine, MD, PhD, FRCPATH, FMedSci

Professor Kate Storey, PhD, FRSE (*Retired 5 September 2014*)

Professor Jonathan Waltho, BSc, PhD

Professor Colin Watts, FRS, FRSE, FMedSci (*Appointed 5 September 2014*)

*Secretary:* Dr Trevor A Hince, PhD

### THE FINANCE AND INVESTMENT COMMITTEE

Mr Michael French, BSc (Eng), FCA, *Chairman*

Hon Rory M B Guinness

Mr Andrew Hutton, MA, CFA

Professor Sir Alex Markham, DSc, FRCP, FRCPATH, FMedSci

Professor Tony Minson, PhD, FMedSci

Mr Matthew Pintus, BA

*Secretary:* Dr Trevor A Hince, PhD

## CHAIRMAN'S ANNUAL REPORT

for the year ended 31 December 2014

THE YEAR 2014 has seen some significant 'milestones' for the Institute: the year-end value of its investments at £37.296m now exceeds the pre-financial crisis level of 2007 and the number of applications for the Prize Fellowships was the highest since 2005. We were able to award four Prize Fellowships and increase the number of summer studentships to twenty-five. In addition, the Institute was able to secure the funding for activities in 2015 by banking the necessary funds in advance.

On the research front, Lister Fellows and former Fellows continued to undertake excellent research, publish high-impact papers and gain academic advancement. Of course, the Institute appreciates that it cannot take sole credit for these achievements since its Fellows will receive personal support and funding from many other agencies. However, on speaking to Fellows it is very clear that the flexibility which the Lister award of £200,000 gives them, whether to appoint new staff, buy equipment or pursue new lines of research, is worth far more than the simple cash value of the award.

## Governing Body and Administrative Matters

### Governing Body and Administration

The Governing Body has met twice during the year, once in April and then before the start of the September Fellows' meeting in Cambridge. However, the provision in the Institute's Articles that matters can be resolved and approved by e-mail has also meant that important issues can and have been dealt with rapidly. I am particularly grateful to my fellow Trustees for the speed with which they respond to Lister matters and the obvious deep consideration which they give to the Institute's business whether dealing with it electronically or at meetings. This year we were very sorry to bid farewell to Professor Janet Darbyshire from the Governing Body as she had to step down because of pressure from her other commitments. The Governing Body gave detailed thought to a potential replacement and decided that there would be great benefit in seeking somebody who had held a Lister Prize Fellowship in the recent past and would be able to bring first-hand experience of being a young researcher in today's academic environment – we are delighted that Professor Rebecca Fitzgerald, a Prize winner in 2008, will become a Trustee in 2015. I and the other Trustees were equally delighted, and relieved, that Michael French was persuaded to stay on

for a further three years as the Institute's Honorary Treasurer and re-elected at the AGM.

The Institute continues to be run very smoothly by Trevor Hince and his small team of Naomi King and Jacky Wilson. They all contribute to making the lives of Trustees and Committee Members very straightforward for which we thank them sincerely. Sadly, Trevor Hince has indicated that he wishes to retire from the post of Director next year, or soon after, so we shall begin the daunting task of finding his successor. He will be an almost impossible act to follow.

## Institute Membership

Three Prize Fellows, Dr Juan Burrone, MRC Centre for Developmental Neurobiology, King's College London, Professor Andrew Jackson, MRC Human Genetics Unit, Western General Hospital and Dr Grant Stewart, CRUK Institute for Cancer Studies, University of Birmingham, who completed their fellowships in 2014, have been welcomed into Membership.

## Financial Matters

It is very pleasing to be able to report a second year of strong financial growth, which saw further gains for the Institute's investments such that they finished the year at £37.296m. This is above the pre-financial crisis level of 2007. However, this achievement is the greater because the decision was taken during the year to 'top-slice' and bank the funds needed to cover, in full, the required 2015 expenditure (hence the high level of 'cash at bank' shown in the Balance Sheet on page 25). This decision was taken on the advice of the Finance and Investment Committee who felt that it would be prudent to capitalise on the strong market performance in 2014 and safeguard future expenditure, given the uncertainty of future market returns and the patchy nature of the economic recovery. Thus, in 2014 the Institute was not only able to support four Prize Fellows (£800,000), expand the Summer Studentship scheme to twenty-five (£50,000) but also to guarantee at least this level of funding in 2015. The Institute's operational costs remained low at £150,000, but investment management fees rose to £214,000 (a consequence of the strong performance of the portfolio). The Institute's total expenditure for 2014 was £1.214m. The one area that saw an increase in costs was investment management, driven by the strong portfolio growth and the triggering of

'performance fees' for one of our firms of advisors. However, it is a very comfortable position for the Chairman of a charity to be able to report increased expenditure on the key objectives and to know that we will be able to do so the following year; for this I am indebted to the Hon Treasurer and the Finance and Investment Committee for their wise counsel.

Michael French and his colleagues on the Finance and Investment Committee have certainly served the Institute well, not only in their regular twice-yearly meetings with our current investment advisors, Partners Capital LLP and Cazenove Capital Management (Schroders), but also in their scrutiny of the Institute's own finances and a willingness to maximise expenditure on science. I and all members of the Governing Body are extremely grateful to the 'finance team' for their diligence and efforts and particularly to Michael French for explaining it all so clearly to us!

Last year I reported that the Institute had appointed new auditors, Kingston Smith LLP, and I am delighted that their first audit was 'trouble free' and that they were able to make some very helpful suggestions – the Institute looks forward to an ongoing association with them.

Further details on the Institute's finances may be found on pages 20 and 21 and are summarised in the Statement of Financial Activities on page 24.

## Scientific Activities

### Scientific Advisory Committee





With the increase in the number of applications, the work of the Scientific Advisory Committee in selecting the eventual Prize Fellows becomes even harder and the Institute is indebted to its members for their dedication. This year we were sorry to part with two members; Professor Mary Collins, after completing her six-year term, and Professor Kate Storey who, because of the pressure of her other commitments, had to step down. In their places the Institute is pleased to welcome Professors Corrine Houart (Kings College, London) and Colin Watts (University of Dundee) and hopes that they will enjoy their time on the SAC and gain satisfaction from helping the careers of young researchers.

It was pleasing to see the Summer Studentship scheme extended to twenty-five recipients. This enables Lister Fellows and former Fellows to be able to offer places to outstanding students who then have the opportunity to experience research in a first-rate

laboratory. After the studentship is completed the Institute is sent both a scientific report and a personal statement on their experience by the student. In most cases it reinforces the student's wish to go on to do research via PhD training, but in some it identifies that a career in research is not for them; both are satisfactory outcomes!

## 2014 Lister Research Prize Fellowship Winners

The recipients of the 2014 Lister Research Prize Fellowships, who each received the award of £200,000, were:

<i>Prize Winner</i>	<i>Title of Research</i>
 <p><b>Dr M Madan Babu</b> MRC Laboratory of Molecular Biology Cambridge</p>	Dynamics of tRNA abundance and the regulation of protein expression levels
 <p><b>Dr Emmanuel Boucrot</b> University College London</p>	Mechanisms of cargo selection and vesicle formation in a novel pathway of endocytosis
 <p><b>Dr Robert Ryan</b> University of Dundee</p>	Molecular basis of chronic antibiotic-resistant biofilm infections: a potential path towards development of strategies for therapeutic intervention
 <p><b>Dr Melina Schuh</b> MRC Laboratory of Molecular Biology Cambridge</p>	Mechanisms of aneuploidy in human oocytes

## Current and Former Lister Prize Fellows

The following have been awarded Lister Research Prize Fellowships since the inception of the Prize Fellowship scheme. This is an outstanding group of scientists and represents a major contribution to the well-being of UK biomedical research:



<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Dr Nina Balthasar</b> University of Bristol	Identifying the novel CREB coactivator TORC2's role in the hypothalamic pathways controlling energy homeostasis	2007
<b>Dr Oliver Billker</b> The Wellcome Trust Sanger Institute Cambridge	In search of the xanthurenic acid receptor of malaria parasites – a potential target for transmission control	2004
<b>Dr Nia Bryant</b> University of York	Using yeast as a model system to understand the insulin-dependent trafficking of GLUT4 in adipocytes	2004
<b>Dr Simon Bullock</b> MRC Laboratory of Molecular Biology, Cambridge	Mechanisms and neuronal functions of motor-driven transport	2008
<b>Dr Juan Burrone</b> Kings College London	The role of neuronal activity during synapse formation	2009
<b>Dr Vincenzo Costanzo</b> Cancer Research UK Clare Hall Laboratories	The role of ATM and ATR in preventing genomic instability	2006
<b>Dr Victoria Cowling</b> University of Dundee	Regulation and function of the 7-methylguanosine cap	2011
<b>Professor Daniel Davis</b> Imperial College London	Nanotubes and synapses in immune cell communication	2005
<b>Professor Simon Draper</b> The Jenner Institute Oxford	Development of next-generation broadly-neutralising vaccines against the blood stage infection of human malarialias	2013
<b>Professor Michael Eddleston</b> University of Edinburgh	Prevention of deaths from late respiratory failure in organo-phosphorus pesticide poisoning	2011
<b>Professor Sherif El-Khamisy</b> University of Sheffield	The repair of oxidative and topoisomerase induced chromosomal strand breaks and human disease	2013
<b>Professor Rebecca Fitzgerald</b> University of Cambridge	Translational research programme for prevention of oesophageal adenocarcinoma	2008
<b>Dr Holger Gerhardt</b> Cancer Research UK London Research Institute	Endothelial guidance in vascular patterning	2008

*Continued overleaf*

<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Dr Fiona Gribble</b> University of Cambridge	Secretion of incretin hormones from the mouse intestine	2006
<b>Dr Andrew Jackson</b> University of Edinburgh	Cellular pathways determining human brain size	2009
<b>Dr Josef Kittler</b> University College London	Miro family proteins as regulators of synaptic bio-energetics and a locus for mitochondrial dysfunction in neurological disease	2010
<b>Dr Robert Klose</b> University of Oxford	Biochemical isolation and functional dissection of the CpG island proteome	2011
<b>Dr David Komander</b> MRC Laboratory of Molecular Biology Cambridge	Bacterial interference with the ubiquitin system	2012
<b>Professor Paul Lehner</b> University of Cambridge	The role of HSP70 in MHC Class 1 mediated antigen presentation in human dendritic cells	2004
<b>Dr David Lyons</b> University of Edinburgh	Elucidating mechanisms of myelinated axon formation, function and repair using zebrafish	2012
<b>Dr Juan Martin-Serrano</b> King's College London	Functional parallels between HIV-1 budding and the last step of cell division	2008
<b>Dr Robin May</b> University of Birmingham	The molecular basis of latency and dissemination during cryptococcosis	2010
<b>Dr Akhilesh Reddy</b> University of Cambridge	Peroxisomes and redox oscillations in the circadian (24 hour) clockwork	2012
<b>Dr Tatjana Sauka-Spengler</b> Weatherall Institute of Molecular Medicine, Oxford	Decoding gene regulatory circuits controlling multipotency of neural crest	2013
<b>Professor Kenneth Smith</b> University of Cambridge	Control of infection and autoimmunity by an inhibitory Fc receptor FcγR11b	2007
<b>Dr Grant Stewart</b> University of Birmingham	Investigating the role of the RIDDLE syndrome gene in promoting repair of DNA damage	2009
<b>Dr Anne Straube</b> University of Warwick	Microtubule-actin crosstalk in cell migration	2013
<b>Professor Tomoyuki Tanaka</b> University of Dundee	Mechanisms of kinetochore-microtubule interaction	2005

*Continued opposite*

<i>Fellow</i>	<i>Title of Research</i>	<i>Awarded</i>
<b>Dr Sarah Teichmann</b> The Wellcome Trust Sanger Institute and EMBL-EBI, Cambridge	Decoding genetic switches in T helper cell differentiation	2010
<b>Professor Chris Thompson</b> University of Manchester	Identifying and characterising genes that control cell fate choice and social behaviour	2005
<b>Professor Daan van Aalten</b> University of Dundee	Structural mechanisms and specificity of O-GlcNAc signalling in the eukaryotic cell	2006
<b>Dr Fiona Wardle</b> Kings College London	Transcriptional control of mesodermal cell differentiation in vertebrates	2007

## Fellowship Activities

Once again the location of Christ's College, Cambridge, the lovely autumn weather and most importantly the quality and enthusiasm of the speakers combined to provide a memorable Fellows' meeting. The attendance was high and the delegates were provided with an outstanding and diverse set of presentations. This year, with four new Prize Fellows and one Prize Fellow who had been unable to present in a previous year, the morning's programme belonged to the 'new blood' and they did the Institute proud! The four Prize Fellows listed on page 8 were joined by Dr Akhilesh Reddy, and between them covered topics which ranged from the dynamics of tRNA abundance; a novel pathway for endocytosis; mechanisms of aneuploidy in humans; via targets for combating bacterial antibiotic resistance to the operation of circadian clocks. Whilst the science might have been diverse, what united the programme was the quality, depth of knowledge and enthusiasm of the speakers – here were young researchers 'on top of their game'. In the afternoon former Fellows showed that they had not been idle since winning Lister Fellowships, with Ken Smith giving a 'tour de force' talk on 'Genomics, Immunity and the Biology of Clinical Outcome' and Hilary Ashe a comprehensive and clear explanation of BMP signalling and its impact on development.

The 2014 Special Lister Lecture was given by Professor Phillip Hawkins who had been a Fellow from 1988-1993 and in 2013 was elected as a Fellow of the Royal Society. Professor

Hawkins explained with incredible clarity the very complex area of signalling via PI3-kinases (PI3Ks). These kinases catalyse the phosphorylation of inositol phospholipids in the cell membrane, which then act as messengers to regulate many aspects of cellular function. Phillip Hawkins' latest research is shedding new light on the way in which the composition of the lipid backbone in the molecule might be regulated. As usual the lecture stimulated a wealth of questions and discussions.

Following a Reception in the Fellows' garden the meeting concluded with the presentation of scrolls to the new Fellows and the Institute Dinner.

## Conclusion

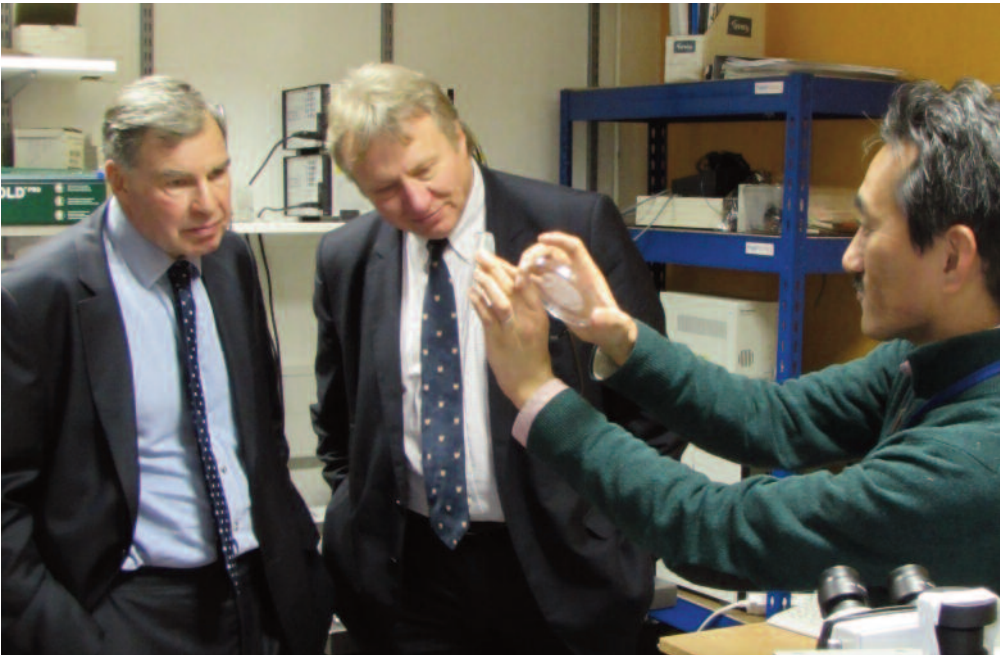
One of the most enjoyable parts of the Chairman's role is travelling to institutions to hear the Prize Fellows give seminars in their home environment. This year Trevor Hince and I visited Oxford to hear talks by Simon Draper and Tatjana Sauka Spengler, and Sheffield for a presentation by Sherif El-Khamisy plus a tour of the Department of Molecular Biology and Biotechnology and its impressive facilities. This format was repeated at Warwick with a very enjoyable day both listening to Anne Straube's talk but also touring the new Mechano-chemical Cell Biology Building and seeing demonstrations from several of Anne's colleagues. All these events are unique, reflecting both the character of the speaker and that of their departments, each with their differing aspirations and local capabilities. What is common to all is the exceptionally high quality of the presentations, the high regard in which the Lister Prize Fellows are held by their colleagues and the undoubted impact which the receipt of the prize has had on their research. What is also pleasing is that the Lister Prize more often than not results in additional support, either in terms of facilities or funding, from the host institution. It can also bring academic advancement and it is very pleasing to be able to congratulate the following recent Prize Fellows on their awards of 'Professorships' – Simon Draper (Oxford), Michael Eddleston (Edinburgh), Rebecca Fitzgerald (Cambridge), Andrew Jackson (Edinburgh), Robert Klose (Oxford), Robin May (Birmingham) and Sherif El-Khamisy (Sheffield). I should like to express my own and the Institute's thanks to the host institutions that have welcomed us to 'presentation events' this year and extend this to all the institutions that house Lister Fellows for the support which they give them. By working

with these institutions, I think it is very obvious that the Lister Institute is indeed ‘nurturing the future leaders in biomedical research’!

At this point it is fitting that I pay tribute to Professor Patrick Maxwell and all the members of the Scientific Advisory Committee since it is eminently clear that they are doing an excellent job in selecting the very best individuals for the award of Lister Prizes. I must also thank all my colleagues on the Governing Body for all their hard work and support, not least for ensuring that we are now able to award at least four prizes each year. It is, however, clear to me that the Lister Institute is a ‘family’ and its strength comes from all its members, whether they be Fellows, Trustees, Committee members, Members of the Institute or Staff – it is a pleasure to be associated with you all and to all I owe my sincere thanks.

ALEX MARKHAM  
Chairman

The Institute’s Director Dr Trevor Hince and Professor Sir Alex Markham pay close attention to a demonstration at the University of Bradford.





# The 2014 Annual Fellows' Meeting at Christ's College, Cambridge

Pictured on this page:

*Right (l-r):* Professor Sir Alec Jeffreys and Professor Chris Higgins, both Lister Fellows in the early 1980s

*Middle left:* Professor Ilan Davis, Dr David Horowicz and Professor Kate Storey

*Middle right:* Professor Paul Lehner and Dr Trevor Hince

*Bottom:* Governor Mr Andrew Hutton talks with Dr Melina Schuh (left) and Dr Anne Straube







SAC member Professor Nick Lemoine and former Fellow Professor Andrew Jackson enjoy a pre-dinner drink in the Master's Garden



Former SAC member Professor Mary Collins

Lunch and an opportunity to discuss the morning's talks



## REPORT OF THE GOVERNING BODY

for the year ended 31 December 2014

The Governing Body presents its Annual Report under the Charities Act 2011 together with the audited Financial Statements of the Charity for the year ended 31 December 2014. The Financial Statements have been prepared in accordance with the accounting policies set out in Note 1 (page 26) to the Financial Statements and comply with the Companies Act 2006, the requirements of the Statement of Recommended Practice 2005 "Accounting and Reporting by Charities", and the documents governing the constitution of the Charity.

### REFERENCE AND ADMINISTRATIVE DETAILS

Reference and administrative information is set out on pages 3 and 4 of this report.

#### ***Members of the Governing Body, Directors and Trustees***

The members of the Governing Body are, for the purposes of company law, Directors of the Institute and, for the purposes of charity law, Trustees of the Institute and throughout this report are collectively referred to as the Trustees. Details of the Trustees serving throughout the year, unless otherwise stated, are set out on page 3.

### STRUCTURE, GOVERNANCE AND MANAGEMENT

#### ***Constitution***

The Institute is registered with the Charity Commission for England and Wales (registration number 206271). It is incorporated and registered in England and Wales under the Companies Act 2006 as a company limited by guarantee and not having a share capital (company number 34479). It is governed by its Articles of Association and has charitable status.

#### ***Appointment and Re-appointment of Trustees***

The Trustees are the fifteen members of the Governing Body of whom six are appointed by the members at the annual general meeting. A maximum of six further Trustees are appointed by the Governing Body and there are currently four such appointees. One additional member is Lord Iveagh's representative, another is Professor Sir Alec Jeffreys who was appointed to life-membership, and the final member, Professor Cheryl Tickle, is the representative of the Royal Society. Trustees, other than the two nominated representatives, Professor Sir Alec Jeffreys and exceptionally those appointed by the Governing Body, generally serve for a maximum of six years and a system of planned rotation is in place. Currently two positions are deliberately being kept vacant. When considering appointment or nomination for election as Trustees, the Governing Body has regard to the specialist skills needed.

#### ***Induction and Training of Trustees***

New Trustees undergo induction sessions with the Chairman, Treasurer and Director during which they will gain an understanding of the Institute's structure, activities, financial position and future strategies. Prior to appointment they will attend, as 'observers', one meeting of the Governing Body. New Trustees will also be made aware of their legal obligations with regard to charity and company law. In addition, new Trustees will be advised of appropriate literature and training courses.

#### ***Organisation***

The Institute is governed by its Governing Body which is responsible for setting policies, authorising actions on all significant operational issues and ensuring legality and good practice. The Governing Body meets formally twice a year.

Specific authorities are delegated to two sub-



Committees in particular areas. The Scientific Advisory Committee (see page 4 for membership) has responsibility for the selection of the Lister Prize Fellows and the monitoring of their scientific activities, as well as providing scientific and medical advice to the Governing Body as required. The Finance and Investment Committee (see page 4 for membership) has responsibility for interaction with the Institute's investment advisors, ensuring implementation of the Institute's investment policy and monitoring performance. It prepares and submits to the Governing Body the annual budget, and subsequently monitors performance against it. It also advises the Governing Body, as required, on other financial and risk matters.

The routine management of the Institute's activities is undertaken by its Director, aided by the Administrator and the Accountant. All staff work from home.

### **Risk Management**

The Trustees assess the risks facing the Institute and review the effectiveness of the controls to monitor and mitigate against them. A Risk Management Register is maintained and formally reviewed annually by the Governing Body.

The key controls used by the Institute include:

- Formal agendas for all Governing Body meetings
- Strategic planning, budgeting and management accounting
- Formal written policies
- Clear authorisation and approval levels
- Regular review of Fellows' scientific reports

The specific risk of bribery associated with any of the Institute's activities has been reviewed and clear policies and procedures have been developed and communicated to all Trustees, staff and Members.

The Institute maintains a 'Register of Interests'

for all Governing Body and committee members as well as principal staff and operates a clear declaration of interests policy and procedures for all meetings.

The principal risk facing the Institute lies in its ability to maintain and protect the value in real terms of its investments and to generate from them on a long-term basis a consistently high overall return. This risk is mitigated by the Institute's appointment of experienced investment managers with a proven track record; by internal controls that allow close and regular monitoring of their performance against benchmarks; by the Institute's requirement of its investment managers to re-tender periodically and competitively for appointment – last review October 2012, and by regular meetings that formally review investment performance and policy and include one-to-one presentations by the investment managers.

### **Objectives and Activities**

The statutory Object of the Institute is to further understanding and progress in preventive medicine by promoting excellence in biomedical research in the UK.

When founded in 1891, the Institute sought to achieve this objective by establishing a research institute specialising in the area of 'infections' and their prevention by immunisation and other means. It complemented the research activities by the production and supply of materials such as vaccines and toxins.

The Institute continued in this mode until the late 1970s when increasing financial and regulatory pressures caused the cessation of these activities. Proceeds from the resultant sale of land and buildings created the investment funds from which present-day activities are financed; at 31 December 2014 these funds stood at £37.296m. From the 1980s the Institute has pursued its objective by the provision of grant

funding to facilitate the research and careers of high quality individuals working in areas of biomedicine relevant to preventive medicine. It has done this because it believes that the acquisition and advancement of knowledge is crucial to the understanding of health and disease and that research to achieve this is driven forward by high quality individuals and their supporting staff.

### ***Principal Activities***

In pursuance of this objective, during 2014 the Institute awarded four new Prize Fellowships. In addition, the Institute has continued its Summer Studentship scheme which enables up to twenty-five undergraduates per year to work with Lister Fellows or former Fellows in order to gain experience of biomedical research with the hope that they might consider it as a career.

### ***Achievement and Performance***

The Scientific Advisory Committee has monitored the performance of the current eighteen Lister Prize Fellows, through detailed review of the annual reports on their research which include details of all publications and presentations. The Scientific Advisory Committee has reported to Trustees that it is of the view that all Fellows are undertaking high quality research and producing new knowledge that will contribute significantly to our understanding of disease, its causes, treatment and prevention. The reports of the research undertaken by the Summer Students have also been reviewed and found to be very satisfactory.

Four Lister Prize Fellowships were awarded in 2014 to Drs Babu, Boucrot, Ryan and Schuh from a field of 84 initial applicants, following extensive scientific review of their applications and final interview by the Scientific Advisory Committee. (More details of the Prize Fellows and their research are provided on page 8).

Each Prize Fellowship provides £200,000 which may be spent over five years on the recipient's research, although the funds are provided to the host institution at the commencement of the award.

Twenty-five Summer Studentships were awarded in 2014, each is a £2,000 student bursary and is paid to the host institution at the commencement of the award for the support of the student for up to a ten-week period.

The Institute maintained its commitment to fostering scientific interchange and collaboration within the Fellowship by holding its 30th Annual Research Fellowship meeting at Christ's College, Cambridge.

### ***Public Benefit***

In so far as the statutory objectives, aims and activities of The Lister Institute of Preventive Medicine are to further understanding in preventive medicine by promoting biomedical research as set out on page 17 of this Report, the Trustees are satisfied that they fully comply with the duty in section 17 of the Charities Act 2011, namely to have due regard to the public benefit guidance published by the Charity Commission.

The public benefit of the Institute's grant-making is clearly identifiable in the 'Achievement and Performance' paragraphs above and in the list of Research Prize Fellows together with their areas of research on pages 8 to 11 of the Chairman's report. All Lister Fellows are actively encouraged, where appropriate, to develop their research findings for potential public benefit and the Scientific Advisory Committee has regard to this when reviewing their research reports. The Lister Institute therefore benefits the public or a sector of it without imposing any restrictions. Applications from individuals are accepted only when demonstrably consistent with the charitable objectives of the Institute.

### **Impact**

The impact of the activities of a medical research charity can be measured at many levels ranging from the growth of knowledge to direct patient/public benefit. Often the transition from the former to the latter may take many years and the involvement of several organisations. The Institute requires that the results of the research it supports are published and disseminated; that, where appropriate, significant intellectual property is protected via patents; and that its commercial development is encouraged. Several biotechnology companies have been formed around the findings of Institute-sponsored research and there are several interactions with large pharmaceutical companies. A prime example of the impact of research is DNA fingerprinting, which was discovered by Sir Alec Jeffries when a Lister Fellow and has become an indelible part of society, helping to prove innocence or guilt in criminal cases, resolving immigration arguments and clarifying paternity. This year the Institute entered into two more 'research exploitation' agreements with the host institutions of Prize Fellows; an essential first step in moving research findings towards help for patients and the public.

### **Investment Policy and Performance**

The Institute's investment objective is to develop and maintain its financial resources through the selection of investments, consistent with an acceptable level of risk.

The Institute's investment portfolio is split between Cazenove Capital Management and Partners Capital LLP who both operate under mandates agreed in advance with the Finance and Investment Committee. These mandates set out an overall target asset allocation with allowable ranges for each category of asset.

Both investment managers invest on a total returns basis through a variety of pooled funds

and in accordance with the Institute's overarching "Investment Policy Statement" (IPS) which states the overall investment objective and sets the investment return objectives, the risk parameters, the performance measures and review procedures for the portfolio. The Institute's IPS was revised in the autumn of 2013 and specific versions agreed for each of the investment managers to reflect their individual investment approaches. The Institute's IPS is reviewed annually. The investment managers are informed at the beginning of the financial year of the Institute's likely cash requirements, both in terms of the amount and the timing of any draw-down, and are asked to keep in an income or cash account sufficient funds to meet them. The Institute has in place an ethical investment policy which does not permit direct investment in tobacco or tobacco-related companies.

The Institute's overall financial return objective is to preserve and if possible enhance the purchasing power of its portfolio assets, net of costs and approved withdrawals, over rolling three-year periods. This goal is synonymous with the pursuit of a time-weighted net return on portfolio assets that equals and if possible exceeds cost inflation as measured by the UK Consumer Price Index plus the Institute's long-term spending rate of 3-4% measured over corresponding three-year periods.

The performance of the investment portfolio is reviewed by the Finance and Investment Committee, which had two meetings in the year with the investment advisors to review performance, liquidity within the portfolio, and the due diligence undertaken on potential new investment vehicles. In addition the Institute receives detailed quarterly valuation and transaction reports. In a year that saw strong stock market growth the fund has risen from £37.250m to £37.296m, despite withdrawing both the funds required for 2014 (£1.000m) and also those for

2015 (£1.000m). The decision to withdraw and bank the 2015 cash requirement was based both on the strong growth of the portfolio but also concerns about future market volatility and performance.

More details of the Institute's activities are set out in the Chairman's Report on pages 5 to 13.

## **FINANCIAL REVIEW**

### ***Allocation of Resources***

The Institute, which does not seek to raise funds from the public, depends primarily on investment returns to meet its pension provision payments, administrative expenditure and expenditure in furtherance of the Charity's objectives. The total return on investments for the year was realised/unrealised gains of £1.628m and investment income of £597,000.

The resources expended totalled £1.214m of which £973,000 were resources expended for the Institute's charitable activities.

As the Prize Fellowships are fixed sum awards, expenditure can be regulated by altering the number and/or value of prizes awarded each year. This will be done in light of the income and realised/unrealised gains generated from our investment portfolio. This will be sensitive to the performance of our investments and will be reviewed annually before fresh commitments are made. In the year, due to the substantial increase in the value of the investment portfolio and good returns, the Trustees felt able to award four Prizes and to maintain their value at £200,000 each. The Summer Studentship scheme at a total cost of £50,000 can be reviewed each year with regard to both number and value.

### ***Reserves Policy***

The policy of the Trustees is to maintain adequate financial resources to provide income to meet

current and future commitments as they fall due and ensure that adequate funds remain available to enable them to make awards in perpetuity.

The adequacy of the level of reserves and the continuing appropriateness of the policy are reviewed on an annual basis by the Trustees. As the current level of investments now just exceeds the high of 2007, they feel satisfied with the policy over the long-term and the ability of the Institute to maintain appropriate levels of activity in the short-term.

### ***Plans for the Future***

The Institute's future policy is to continue to pursue its current objectives. It will therefore maintain the Prize Fellowship scheme which it sees as a funding priority. The Summer Studentship scheme will also be maintained together with the opportunity for schools to receive talks from the Institute's Fellowship on science and biomedical subjects as part of an 'outreach' programme.

### ***Statement of Trustee Responsibilities***

The Trustees (who are also directors of The Lister Institute of Preventive Medicine 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 SORP;
- make judgments and estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; 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 proper 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.

In so far as the Trustees are aware:

- there is no relevant audit information of which the charitable company's Auditor is unaware;
- 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.

By Order of the Governing Body

ALEX F MARKHAM  
Chairman

MICHAEL FRENCH  
Treasurer

17 June 2015

## INDEPENDENT AUDITORS' REPORT

to the Members of The Lister Institute of Preventive Medicine

We have audited the financial statements of The Lister Institute of Preventive Medicine for the year ended 31 December 2014 which comprise the Statement of Financial Activities, the Balance Sheet and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

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

### **Respective responsibilities of Trustees and Auditor**

As explained more fully in the Trustees' Responsibilities Statement, the Trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

### **Scope of the audit of the financial statements**

An audit involves obtaining evidence about the amounts and disclosures in the financial state-

ments sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the charitable company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Trustees; and the overall presentation of the financial statements. In addition we read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

### **Opinion on financial statements**

In our opinion the financial statements:

- give a true and fair view of the state of the charitable company's affairs as at 31 December 2014 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

### **Opinion on other matter prescribed by the Companies Act 2006**

In our opinion the information given in the Trustees' Annual Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

***Matters on which we are required to report by exception***

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

Nicholas Brooks (Senior Statutory Auditor)  
for and on behalf of Kingston Smith LLP,  
*Statutory Auditor*

Devonshire House  
60 Goswell Road  
London EC1M 7AD

17 June 2015

## STATEMENT OF FINANCIAL ACTIVITIES

for the year ended 31 December 2014

	Notes	2014	2013
		£'000	£'000
<b>Incoming resources</b>			
Incoming resource from generated funds:			
Investment income	2	597	490
Other incoming resources	3	48	9
<b>Total incoming resources</b>		<b>645</b>	<b>499</b>
<b>Resources expended</b>			
Costs of generating funds:			
Investment management costs	4	(214)	(180)
Charitable Activities:			
Prizes & Summer Studentships	6	(973)	(964)
Governance costs	8	(27)	(25)
<b>Total resources expended</b>		<b>(1,214)</b>	<b>(1,169)</b>
<b>Net expenditure</b>		<b>(569)</b>	<b>(670)</b>
<b>Gains on investment assets</b>		<b>1,628</b>	<b>3,972</b>
<b>Pension actuarial losses</b>	13	<b>(14)</b>	<b>(10)</b>
<b>Net movement in funds</b>		<b>1,045</b>	<b>3,292</b>
Total funds brought forward		37,293	34,001
<b>Total funds carried forward</b>		<b>38,338</b>	<b>37,293</b>

All items in the above Statement of Financial Activities relate to continuing operations for both years. The Institute has no other recognised gains and losses other than as stated above and hence no separate income and expenditure statement has been shown.

The notes set out on pages 26 to 30 form part of these financial statements.



## BALANCE SHEET

as at 31 December 2014

Company no. 34479

	Notes	2014	2013
		£'000	£'000
Fixed assets			
Investments	9	37,296	37,250
<b>Total fixed assets</b>		<b>37,296</b>	<b>37,250</b>
Current assets			
Debtors	10	48	8
Cash at bank and in hand	11	1,441	650
<b>Total current assets</b>		<b>1,489</b>	<b>658</b>
Current liabilities			
Creditors: amounts falling due within one year	12	(263)	(429)
<b>Net current assets</b>		<b>1,226</b>	<b>229</b>
<b>Total assets less current liabilities</b>		<b>38,522</b>	<b>37,479</b>
Creditors: amounts falling due after more than one year			
Pension provision	13	(184)	(186)
<b>Net assets</b>		<b>38,338</b>	<b>37,293</b>
represented by			
Unrestricted funds		38,338	37,293
<b>Total charity funds</b>		<b>38,338</b>	<b>37,293</b>

The Trustees have taken advantage of the exemptions conferred by the Companies Act 2006, on the grounds that the Institute is entitled to the benefit of those exemptions as a small company.

These financial statements were approved by the Governing Body on 17 June 2015.

ALEX F MARKHAM	Members of the
MICHAEL FRENCH	Governing Body

The notes set out on pages 26 to 30 form part of these financial statements.

## NOTES TO THE FINANCIAL STATEMENTS

for the year ended 31 December 2014

### 1 PRINCIPAL ACCOUNTING POLICIES

#### ***Basis of preparation***

The Financial Statements have been prepared in accordance with the Statement of Recommended Practice, Accounting and Reporting by Charities (SORP 2005), applicable accounting standards and the Companies Act 2006. The Financial Statements are prepared in accordance with the historical cost convention modified by the revaluation of investments. The principal accounting policies adopted in the preparation of the Financial Statements are as follows:

#### ***Incoming resources***

All incoming resources are accounted for on a receivable basis.

#### ***Prizes and grants***

The cost of Research Prize Fellowships is charged in the year awarded.

#### ***Resources expended***

The costs of generating funds include those fees payable to the Institute's investment fund managers for the management of the Institute's investment portfolio. These are accounted for on an accruals basis. Charitable expenditure comprises all expenditure directly relating to the objects of the charity and is accounted for on an accruals basis. The allocation of expenditure between governance and management, administration and support costs is reviewed on an annual basis to ensure the allocation is appropriate. Indirect costs are generally treated as falling into the latter category with the exception of a proportion of salary and related costs which have been classified as governance costs.

#### ***Governance costs***

In addition to auditor's remuneration, governance costs comprise the proportion of staff costs associated with the time spent on the preparation of the statutory accounts and other governance issues together with honoraria remuneration provided to members of the Institute's Scientific Advisory Committee for their duties in selecting the Prize Fellows.

#### ***Supplementary pensions and staff pensions***

An estimate of the full provision is made in the Financial Statements for the costs of future supplementary payments. The provision and charge to income are reviewed annually by the Trustees in the knowledge that the number of persons receiving the supplementary pensions will not increase. The pension costs are assessed in accordance with actuarial advice and these costs are accounted for in accordance with FRS17. Existing employees participate in a defined contribution scheme, the costs of which are expensed as incurred. These disclosures are made in accordance with FRS17.

#### ***Investments***

Investments are shown at market value in the balance sheet. Changes in the market value are included in the Statement of Financial Activities as realised and unrealised investment gains or losses in the year in which they arise. Investments denominated in foreign currencies are valued at year-end rates of exchange.

#### ***Cash flow statement***

The Charity has taken advantage of the exemption provided by Financial Reporting Standard No 1 for small charities from the obligation to prepare a cash flow statement.

#### ***Taxation***

The organisation is a registered charity and has obtained exemptions from taxation under Part 11, Chapter 3 of the Corporation Tax Act 2010. This exemption will remain as long as income is compatible with that section and expenditure is applied to charitable purposes only.

## 2 INVESTMENT INCOME

	2014	2013
	£'000	£'000
Income from fixed asset investments	594	489
Bank interest receivable	3	1
	597	490

## 3 OTHER INCOMING RESOURCES

	2014	2013
	£'000	£'000
Royalty income	48	9

Royalty income is earned from Cancer Research Technology as a result of Revenue sharing related to Mammalian Cell research studies.

## 4 COSTS OF GENERATING FUNDS

	2014	2013
	£'000	£'000
Partners Capital LLP	122	93
Cazenove Capital Management	92	87
Total investment management fees	214	180

Investment management fees referred to here are those accrued fees relating to the management of the Institute's investment portfolios in 2014.

## 5 GOVERNING BODY AND STAFF COSTS

### Emoluments of members of the Governing Body

No member of the Governing Body received any emoluments in respect of services to the Institute during the year (2013: nil). Travel expenses of £1,287 were paid relating to the claims of six members in connection with their attendance at meetings (2013: £1,366, seven members).

Members of the Governing Body who are also members of the Scientific Advisory Committee receive remuneration in relation to their services to the committee. An honorarium of £1,500 (2013: £1,500) was paid to one of the members, via the member's University, in 2014.

### Employee information

The average number of persons employed by the Institute during the year was three (2013: three), two of whom are part-time. All were employed in an administrative and support capacity. No employees earn over £60k p.a. (2013: nil).

### Staff costs

	2014	2013
	£'000	£'000
Gross salaries	78	76
Pension contributions	3	3
Employer's national insurance	8	8
	89	87

The salary costs are allocated under governance where related to statutory accounts preparation, the balance being reported within charitable activities.

## 6 PRIZES & SUMMER STUDENTSHIPS

	2014	2013
	£'000	£'000
Prize awards	800	800
Prize award – unspent element refunded	0	(1)
Summer Studentship payments	50	42
Support costs (see Note 7)	45	47
Salaries (see Note 5)	78	76
	973	964

## 7 SUPPORT COSTS

	2014	2013
	£'000	£'000
Office expenses	9	8
Travel expenses	3	4
Professional fees	3	5
Honoraria and events	21	20
Pension costs (see Note 13)	9	10
	45	47

These costs are all considered to be costs to support resources expended on charitable activities.

## 8 GOVERNANCE COSTS

	2014	2013
	£'000	£'000
Auditors' remuneration	10	10
Staff costs (see Note 5)	11	11
Honoraria and events	6	4
	27	25

No non-audit services were provided by the auditors during the year (2013: none).

## 9 INVESTMENTS

Listed investments are valued at middle market quotations ruling at the year-end

	2014	2013
	£'000	£'000
Market value at beginning of year	37,250	33,965
Purchases during the year at cost	7,981	9,095
Proceeds of sales during the year	(9,360)	(8,579)
Reinvested income for the year	418	310
Movement in un-invested cash	1,379	(513)
Cash withdrawn	(2,000)	(1,000)
Net change in market value	1,628	3,972
Market value at year-end	37,296	37,250

The portfolio's asset allocation was as follows:

	2014	2013
	£'000	£'000
<i>UK investments</i>		
Equities	7,569	9,042
Fixed interest	2,482	2,397
Other (including private equity, property, commodities, alternatives and inflation-linked bonds)	3,862	3,328
Cash	512	586
Total UK investments	14,425	15,353
<i>Non-UK investments</i>		
Equities	15,461	14,281
Other (including private equity, property, commodities and alternatives)	6,538	7,182
Cash	872	434
Total non-UK investments	22,871	21,897
Total	37,296	37,250

At 31 December 2014 no single shareholding exceeded 5% of the total value of investments (2013: none).  
Historical cost related to the closing position of 2014 was £27.6m (2013: £27.1m).

## 10 DEBTORS

	2014	2013
	£'000	£'000
Accrued income	48	8

## 11 CASH

	2014	2013
	£'000	£'000
Cash at bank	1,441	650

## 12 CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	2014	2013
	£'000	£'000
Taxation and social security	3	3
Accruals and deferred expenditure	260	426
Total creditors falling due within one year	263	429

## 13 PROVISION FOR LIABILITIES AND CHARGES

This represents a provision for future supplementary pension payments, in respect of ex-employees, based on their salary and length of service. The pensions are unfunded, with payments made out of the Institute's funds as they fall due.

Movements in the pension provision during the year were as below:

	2014	2013
	£'000	£'000
Liability at beginning of period	186	191
Plus interest cost	9	10
Plus actuarial gains and losses	14	10
Benefits paid	(25)	(25)
Liability at end of period	184	186

The tables below state the FRS17 actuarial assumptions used to estimate the pension provision.

### *Principal actuarial assumptions*

Valuation at 31 December 2014

	2014	2013
Rate of increase to pensions in payment	3.0%	3.0%
Rate used to discount scheme liabilities	5.0%	5.0%

The post-retirement mortality assumption uses the PCA00 base tables (year of birth) with improvements equal to medium cohort with a 1% minimum.

## 14 RELATED PARTY TRANSACTIONS

There were no related party transactions in the year (2013: none).



## **ANNUAL REPORT AND FINANCIAL STATEMENTS**

for the year ended 31 December

# 2015





The Institute was founded in 1891 and for the next 80 years played a vital role in the development of the laboratory aspects of preventive medicine as an independent research institute in the UK.

Financial pressures in the 1970s led to the closure of the research and production facilities and the conversion of the Lister Institute into a highly successful trust awarding prestigious Research Fellowships from 1982 which in 2003, again because of financial pressures, were revised to become Prize Fellowships.

The cover portrait of Lord Lister reproduced by courtesy of the Royal Veterinary College

## LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2015

### THE GOVERNING BODY

Professor Sir Alex Markham, DSc, FRCP, FRCPath, FMedSci, *Chairman*

Mr Michael French, BSc(Eng), FCA, *Hon Treasurer*

Professor Judith Armitage, BSc, PhD, FRS (*Appointed 4 September 2015*)

Professor Wendy Bickmore, BA, PhD, FMedSci, FRSE

Professor Sir Adrian P Bird, CBE, FRS, FRSE (*Appointed 4 September 2015*)

Professor Dame Kay Davies, CBE, DBE, MA, DPhil, FMedSci, FRCP(hon), FRCPath, FRS (*Until 4 September 2015*)

Professor Rebecca Fitzgerald, MD, FRCP, FMedSci (*Appointed 4 September 2015*)

Hon Rory M B Guinness

Professor Douglas Higgs, MBBS, MRCPPath, DSc, FRCP, FRCPath, FRS

Mr Andrew Hutton, MA, CFA

Professor Sir Alec J Jeffreys, DPhil, FMedSci, FRS

Professor Patrick Maxwell, FRCP, FMedSci

Professor Tony Minson, PhD, FMedSci (*Until 4 September 2015*)

Mr Matthew Pintus, BA

Professor Cheryl A Tickle, CBE, FRSE, FMedSci, FRS

### SENIOR MANAGEMENT

*Secretary and Director:* Dr Trevor A Hince, PhD (*Until 4 September 2015*)

*Secretary and Director:* Ms Kate Law (*Appointed 4 September 2015*)

#### *Business Address*

PO Box 1083  
Bushey  
Hertfordshire WD23 9AG

#### *Solicitors*

Macfarlanes  
20 Cursitor Street  
London EC4A 1LT

#### *Bankers*

Messrs Coutts & Co  
St Martins Office  
440 Strand  
London WC2R 0QS

*Website:* [www.lister-institute.org.uk](http://www.lister-institute.org.uk)

*Telephone:* 01923 801886

#### *Auditors*

Kingston Smith LLP  
Devonshire House  
60 Goswell Road  
London EC1M 7AD

#### *Registered Office*

Macfarlanes  
10 Norwich Street  
London EC4A 1BD

#### *Investment Advisors*

Cazenove Capital Management  
12 Moorgate  
London EC2R 6DA  
Partners Capital LLP  
5 Young Street  
London W8 5EH

## LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2015

### THE SCIENTIFIC ADVISORY COMMITTEE

Professor Patrick Maxwell, FRCP, FMedSci, *Chairman*

Dr Ian Adams, BSc, PhD

Professor Jon Cohen, FRCP, FMedSci

Professor Cyrus Cooper, OBE, MA, DM, FRCP, FFPH, FMedSci (*Appointed 4 September 2015*)

Professor William Deakin, PhD, FRCPsych, FMedSci

Professor Annette C Dolphin, PhD

Professor David Holden, FMedSci, FRS

Professor Corinne Houart, PhD

Professor John Iredale, FRCP, FMedSci, FRSE

Professor Nick Lemoine, MD, PhD, FRCPath, FMedSci

Professor Jonathan Waltho, BSc, PhD

Professor Colin Watts, FRS, FRSE, FMedSci

*Secretary:* Dr Trevor A Hince, PhD (*Until 4 September 2015*)

*Secretary:* Ms Kate Law (*Appointed 4 September 2015*)

### THE FINANCE AND INVESTMENT COMMITTEE

Mr Michael French, BSc (Eng), FCA, *Chairman*

Professor Judith Armitage, BSc, PhD, FRS (*Appointed 4 September 2015*)

Hon Rory M B Guinness

Mr Andrew Hutton, MA, CFA

Professor Sir Alex Markham, DSc, FRCP, FRCPath, FMedSci

Professor Tony Minson, PhD, FMedSci (*Until 4 September 2015*)

Mr Matthew Pintus, BA

*Secretary:* Dr Trevor A Hince, PhD (*Until 4 September 2015*)

*Secretary:* Ms Kate Law (*Appointed 4 September 2015*)

## CHAIRMAN'S ANNUAL REPORT

for the year ended 31 December 2015

**THE YEAR 2015** saw a small but continued improvement in the Institute's finances with a rise in the value of our investment portfolio to just over £38.5m. Against a background of increasingly volatile markets, the Governing Body endorsed a proposal from the Finance and Investment Committee to set aside a secure fund of £5m, thereby ensuring that the Lister Institute can definitely award at least five prizes every year, for the next five years.

The Governing Body has met twice during the year with our new members already contributing substantially to our discussions, whilst the Charity's two sub-committees have overseen their areas of responsibility with their usual efficiency.

On the research front, the number of applications (90) for the Prize Fellowship is at its highest ever level. Lister Institute Fellows and former Fellows continued to undertake excellent research, publish high-impact papers and gain academic advancement on many fronts. Of course, the Institute appreciates that it cannot take sole credit for these achievements, since its Fellows will receive personal support and funding from many other agencies. My visits to Host Institutions and discussions with Fellows and Members of the Lister Institute give me great confidence that the Lister Institute Prize is still seen as a highly prestigious award, with the flexibility that it offers its greatest strength.

### Governing Body and Administrative Matters

The Governing Body met once in April and then before the start of the September Fellows' meeting in Cambridge. As ever, I must pay tribute to the quality and dedication of its members and the speed and clarity with which they respond to Lister Institute matters. Turnover amongst the trustees of a charity is necessary, since it brings new individuals with a fresh perspective to the oversight of the organisation. Parting company with those members who have served the Charity for many years is, however, a sad moment. This year we were sorry to bid farewell to two Governing Body members, Professors Tony Minson and Dame Kay Davies. Prof Minson had been a member of the Governing Body since 2009 and was also an invaluable member of the Finance and Investment Committee. Dame Kay joined the Governing Body in 2011 and we were very sorry to lose her services early because of pressure from other commitments. The Governing Body devoted considerable thought and discussion to potential replacements. Two individuals received universal support and I am

delighted to report that Professor Judy Armitage FRS (a previous Lister Institute Fellow and now director of the Oxford University Centre for Integrative Systems Biology) and Professor Sir Adrian Bird CBE, FRS, FRSE (Buchanan Professor of Genetics at the University of Edinburgh) agreed to join the Governing Body. Judy has also kindly agreed to serve on the Finance and Investment Committee, where her financial acumen in relation to science and research will be greatly valued.

I am extremely sad to report the death of Professor Richard Perham FRS, who was a member of the Lister Institute's Scientific Advisory Committee from 1993-98 and then its Chairman (and a member of the Governing Body) from 2000-2006. Professor Perham had an extremely distinguished career and made many significant contributions to biomedical research. He was considered one of the world's most gifted biochemists and was an early pioneer in the important field of science that is today called synthetic biology. He was a much-admired Master of St John's College Cambridge, his own *alma mater*.

For many years, the Institute has benefitted from a small administrative team ably led by Dr Trevor Hince, supported by Naomi King and Jacky Wilson. Together, they make the tasks of the Governing Body, Scientific Advisory Committee and Finance and Investment Committee that much easier and my thanks go to them on behalf of all these Committees. As I indicated in my last report, Trevor had decided that he wished to retire in 2015 and, with some reluctance on my part, the search began for a replacement. Trevor was appointed as Director of the Lister Institute in 2004 and, since that time, has ably supported the Institute and two chairmen, Dame Bridget Ogilvie and myself. He has been an outstanding leader who has effectively steered the Institute through many challenges. He has left us at a time when the Lister Institute is on a firm financial footing and has an exciting future ahead. I am delighted that Trevor has accepted an invitation to become a Member of the Lister Institute thus ensuring he will maintain his relationship with the Charity. His replacement, Kate Law, is an experienced scientific administrator, having spent a significant proportion of her career with Cancer Research UK. She retired from that organisation in 2015 after a number of years as Director of Clinical and Population Research for the Charity. She has extensive experience of peer review, management of committees and research funding, and is excited to become a part of the Lister Institute 'family'.

## Institute Membership

One former Fellow, Dr Sarah Teichmann, who completed her Fellowship in 2015 has been welcomed into the Lister Institute Membership. As I have already reported, Dr Trevor Hince has also accepted an invitation to become a Member of the Lister Institute.

## Financial Matters

2015 marked a specific change in our planning for funding of the Lister Institute Prize Fellowships. Although the Institute's finances are in a relatively strong position, our concerns about market volatility meant that this was not certain to continue. As a result, the Treasurer made a proposal to the Governing Body to withdraw £5m from the general portfolio (£2.5m each from Cazenove and Partners Capital) and establish a separate, low-risk, liquid bond account (held by Cazenove). This ensures that 5 Fellowships can be awarded each year for the next 5 years, irrespective of short term market fluctuations. This proposal was endorsed by the Governing Body at its meeting in April 2015. Thus, in 2015, the Institute was again able to fund five Prize Fellows (£1,000,000) and twenty-five Summer Studentships (£50,000).

The Institute's operational costs remained low at £174,000, with investment fees remaining steady at £238,000. At a time when investment returns have fallen and are expected to remain low for the foreseeable future, the Finance and Investment Committee has formally questioned the fee structures levied by our investment managers. To ensure that it receives value for money from the additional costs incurred as a result of using active rather than passive managers, the Institute is now requiring our two managers to report formally on the added value that they generate. The Institute's total expenditure for 2015 was £1.462m. Over the 12 months to December 2015 Cazenove returned 2.4% and Partners Capital 4.7%.

The Lister Institute continues to meet regularly with our investment advisors (Partners Capital and Cazenove), and also took the opportunity to review its Investment Policy Statement (IPS), which both sets out our broad investment requirements and gives the detailed parameters for each of the advisors. It is fitting that, periodically, we hold a more detailed review of the suitability of our investment partners and this is scheduled for 2017.

As always, the Lister Institute is indebted to our Treasurer, Michael French and all the members of the Finance and Investment Committee. I should like to thank them very much indeed for all their hard work and oversight, which provides tremendous reassurance to me as Chairman. It is pleasing to report that the auditors, Kingston Smith, raised no significant issues with respect to the accounts.

Further details on the Institute's finances may be found on pages 21-23 and are summarised in the Statement of Financial Activities on page 26.

## Scientific Activities

### Scientific Advisory Committee

The work of the Scientific Advisory Committee (SAC) in selecting the Prize Fellows is at the

heart of the Institute's activities. This year the SAC was confronted with the daunting task of selecting just five Prize Fellows from a large field of 90 strong applicants, the highest number of applications to date. The process proceeds by an initial screening and scoring by SAC members, to arrive at a long-list. These candidates were then further evaluated by the SAC, this time with the help of reviews from international experts, to arrive at a short-list of eleven candidates who were then interviewed by the Committee. As the selection process proceeds, the standards are very high and coupled with the very diverse fields of research represented, the task of selecting the 'winners' is extremely difficult—it is a tribute to SAC members and their Chairman, Professor Patrick Maxwell, that each year they identify some truly exceptional young researcher—and this year was no different. The excellence of the winners (three women and two men) was made clear to the whole Institute when the new Prize Fellows spoke about their research at the Fellows' meeting. Both the Institute and I are indebted to Patrick Maxwell and his team for all their hard work and excellent choices.

As with all Institute committees there is planned turnover in the membership of the SAC and this year we are delighted to have recruited one new member. Professor Cyrus Cooper OBE is Professor of Rheumatology, Director of the MRC Lifecourse Epidemiology Unit, Vice-Dean of the Faculty of Medicine at the University of Southampton and Professor of Epidemiology at the Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford. I very much hope that Professor Cooper will enjoy his time on the SAC and gain satisfaction from helping the careers of young researchers in this way.

It was pleasing to see the Summer Studentship scheme strongly endorsed by the Fellowship and continuing to support twenty-five recipients. The scheme enables Lister Institute Fellows and former Fellows to offer places to outstanding undergraduate students who then have the opportunity to experience research in a first-rate laboratory. After the studentship is completed the Institute is sent both a scientific report and a personal statement on their experience by the student. In most cases it reinforces the student's wish to go on to do research via PhD training, but in some it identifies that a career in research is not for them. Although both are satisfactory outcomes, we do rather prefer the former!

\* \* \*

## 2015 Lister Institute Research Prize Fellowship Winners

The recipients of the 2015 Lister Institute Research Prize Fellowships, who each received the award of £200,000, were:

<b>Prize Winner</b>	<b>Title of Research</b>
 <p><b>Dr Agnieszka Gambus</b> University of Birmingham</p>	Identification and characterisation of Mcm7 ubiquitin ligase
 <p><b>Dr Ragnhildur Karadottir</b> Wellcome Trust – MRC Cambridge Stem Cell Institute</p>	The role of neuronal activity in myelin repair
 <p><b>Dr Serge Mostowy</b> MRC Centre for Molecular Bacteriology &amp; Infection Imperial College London</p>	Bacterial autophagy and the cytoskeleton in host defence
 <p><b>Dr Erica Watson</b> University of Cambridge</p>	Mechanisms of folate metabolism during the trans-generational inheritance of disease
 <p><b>Dr Steven West</b> University of Sheffield</p>	The nature, mechanism and function of RNA polymerase II modifications in health and disease

## Current and Former Lister Institute Prize Fellows

The following have been awarded Lister Institute Research Prize Fellowships since the inception of the Prize Fellowship scheme. This is an outstanding group of scientists and represents a major contribution to the well-being of UK biomedical research:

<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<p><b>Dr M Madan Babu</b> MRC Laboratory of Molecular Biology Cambridge</p>	Dynamics of tRNA abundance and the regulation of protein expression levels	2014

*Continued overleaf*



<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Dr Nina Balthasar</b> University of Bristol	Identifying the novel CREB coactivator TORC2's role in the hypothalamic pathways controlling energy homeostasis	2007
<b>Dr Oliver Billker</b> The Wellcome Trust Sanger Institute, Cambridge	In search of the xanthurenic acid receptor of malaria parasites—a potential target for transmission control	2004
<b>Dr Emmanuel Boucrot</b> University College London	Mechanisms of cargo selection and vesicle formation in a novel pathway of endocytosis	2014
<b>Professor Nia Bryant</b> University of York	Using yeast as a model system to understand the insulin-dependent trafficking of GLUT4 in adipocytes	2004
<b>Dr Simon Bullock</b> MRC Laboratory of Molecular Biology, Cambridge	Mechanisms and neuronal functions of motor-driven transport	2008
<b>Dr Juan Burrone</b> Kings College London	The role of neuronal activity during synapse formation	2009
<b>Dr Vincenzo Costanzo</b> Cancer Research UK Clare Hall Laboratories	The role of ATM and ATR in preventing genomic instability	2006
<b>Dr Victoria Cowling</b> University of Dundee	Regulation and function of the 7-methylguanosine cap	2011
<b>Professor Daniel Davis</b> Imperial College London	Nanotubes and synapses in immune cell communication	2005
<b>Professor Simon Draper</b> The Jenner Institute Oxford	Development of next-generation broadly-neutralising vaccines against the blood stage infection of human malaras	2013
<b>Professor Michael Eddleston</b> University of Edinburgh	Prevention of deaths from late respiratory failure in organo-phosphorus pesticide poisoning	2011
<b>Professor Sherif El-Khamisy</b> University of Sheffield	The repair of oxidative and topoisomerase induced chromosomal strand breaks and human disease	2013
<b>Professor Rebecca Fitzgerald</b> University of Cambridge	Translational research programme for prevention of oesophageal adenocarcinoma	2008
<b>Dr Holger Gerhardt</b> Cancer Research UK London Research Institute	Endothelial guidance in vascular patterning	2008

<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Dr Fiona Gribble</b> University of Cambridge	Secretion of incretin hormones from the mouse intestine	2006
<b>Professor Andrew Jackson</b> University of Edinburgh	Cellular pathways determining human brain size	2009
<b>Dr Josef Kittler</b> University College London	Miro family proteins as regulators of synaptic bio-energetics and a locus for mitochondrial dysfunction in neurological disease	2010
<b>Professor Robert Klose</b> University of Oxford	Biochemical isolation and functional dissection of the CpG island proteome	2011
<b>Dr David Komander</b> MRC Laboratory of Molecular Biology Cambridge	Bacterial interference with the ubiquitin system	2012
<b>Professor Paul Lehner</b> University of Cambridge	The role of HSP70 in MHC Class 1 mediated antigen presentation in human dendritic cells	2004
<b>Dr David Lyons</b> University of Edinburgh	Elucidating mechanisms of myelinated axon formation, function and repair using zebrafish	2012
<b>Dr Juan Martin-Serrano</b> King's College London	Functional parallels between HIV-1 budding and the last step of cell division	2008
<b>Professor Robin May</b> University of Birmingham	The molecular basis of latency and dissemination during cryptococcosis	2010
<b>Dr Akhilesh Reddy</b> University of Cambridge	Peroxisomes and redox oscillations in the circadian (24 hour) clockwork	2012
<b>Dr Robert Ryan</b> University of Dundee	Molecular basis of chronic antibiotic-resistant biofilm infections: a potential path towards development of strategies for therapeutic intervention	
<b>Dr Tatjana Sauka-Spengler</b> Weatherall Institute of Molecular Medicine, Oxford	Decoding gene regulatory circuits controlling multipotency of neural crest	2013
<b>Dr Melina Schuh</b> MRC Laboratory of Molecular Biology Cambridge	Mechanisms of aneuploidy in human oocytes	2014

*Continued overleaf*

<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Professor Kenneth Smith</b> University of Cambridge	Control of infection and autoimmunity by an inhibitory Fc receptor FcγR11b	2007
<b>Dr Grant Stewart</b> University of Birmingham	Investigating the role of the RIDDLE syndrome gene in promoting repair of DNA damage	2009
<b>Dr Anne Straube</b> University of Warwick	Microtubule-actin crosstalk in cell migration	2013
<b>Dr Sarah Teichmann</b> The Wellcome Trust Sanger Institute and EMBL-EBI, Cambridge	Decoding genetic switches in T helper cell differentiation	2010
<b>Professor Chris Thompson</b> University of Manchester	Identifying and characterising genes that control cell fate choice and social behaviour	2005
<b>Professor Tomoyuki Tanaka</b> University of Dundee	Mechanisms of kinetochore-microtubule interaction	2005
<b>Professor Daan van Aalten</b> University of Dundee	Structural mechanisms and specificity of O-GlcNAc signalling in the eukaryotic cell	2006
<b>Dr Fiona Wardle</b> Kings College London	Transcriptional control of mesodermal cell differentiation in vertebrates	2007

## Fellowship Activities

Once again the location at Christ's College, Cambridge, the lovely autumn weather and most importantly the quality and enthusiasm of the speakers combined to provide a memorable Fellows' meeting. The attendance was high and the delegates were provided with an outstanding set of presentations. The morning was, as usual, taken up by excellent talks from four of the five winners of the 2015 Prize Fellowships listed on page 9, aptly illustrating the diversity of scientific topics at this meeting:

**Dr Ragnhildur Káradóttir**      *The role of neuronal activity in myelin repair*  
Wellcome Trust-MRC  
Cambridge Stem Cell Institute

**Dr Serge Mostowy**      *Bacterial autophagy and the cytoskeleton  
in host defence*  
MRC Centre for Molecular  
Bacteriology & Infection

**Dr Erica Watson**  
University of Cambridge

*Mechanisms of folate metabolism during the trans-generational inheritance of disease*

**Dr Agnieszka Gambus**  
University of Birmingham

*Poly-ubiquitylation drives replisome disassembly at the termination of eukaryotic DNA replication*

They were joined by Dr Fiona Wardle who described her research studying the networks of gene regulation that control tissue and organ formation in the early vertebrate embryo.

The quality of these talks from the latest members of the 'Lister Institute family' set the benchmark for the rest of the meeting, and in the afternoon former Fellows showed that they had been far from idle since winning their Lister Institute Fellowships. The Members and Fellowship enjoyed presentations from Juan Martin Serrano (Exploring the final events in cell division), Andrew Jackson (Ribonucleotides embedded in genomic DNA) and Josef Kittler (Mito Mitochondrial GTPases in neuronal development, maintenance and death). All gave clear and insightful talks demonstrating the importance of fundamental research in identifying the potential causes of disease.

Whilst the topics varied widely throughout the day, the high standard, depth of knowledge and enthusiasm of the speakers was a constant, confirming clearly to Members the outstanding quality of the individuals awarded Prize Fellowships. The 2015 Special Lister Institute Lecture was given by Professor Judy Armitage who was one of the first Lister Institute Fellows between 1982-1985 and who, in 2015, was appointed to the Lister Institute Governing Body. Professor Armitage's talk, entitled 'Keeping the wheels spinning: controlling the rotary motor of the bacterial flagellum', provided the audience with a fascinating glimpse of a stellar career in science, presented with her trademark humour and modesty! She described how, since her earliest days at university, she has found bacteria fascinating, in particular the clever-yet-curious behaviour of the flailing 'tails' that many bacteria use to swim in fluids or crawl on solid surfaces. Understanding these mechanisms holds the potential for significant human benefit. If flagella could be selectively controlled so might infection.

Professor Armitage gave her thanks for Lister Institute support; as she was one of very few people in the UK working on the responsive control of flagella, obtaining funding was very challenging and the Lister Institute Fellowship had played a vital role in her early career. As usual the lecture stimulated a wealth of questions and discussion.

The session ended with mixed emotions both for the speaker and the audience. Dr Trevor Hince, stepping down after more than 10 years as Director of the Lister Institute, gave a personal talk reflecting on a lifetime in the top echelons of scientific administration at the Cancer Research Campaign, Cancer Research UK and the Lister Institute. Trevor has worked with

some extremely eminent researchers in his time including two Knights of the Realm—Alex Markham and Paul Nurse (also a winner of the Nobel Prize)—and a Dame (Bridget Ogilvie).

With typical modesty, Trevor played down his role in the success of all these charities. However, I hope that in giving the Institute's thanks, I left the audience in no doubt as to Trevor's massive contribution to science over the course of his career. Trevor was presented with (among other presents), a magnificent portrait of Lord Lister—the main challenge he faces will be to find a space on the wall of his and Sarah's cottage in Sussex! The



Lister Institute will miss Trevor's wise counsel and leadership but we are delighted that he has become a Lister Institute Member and will, therefore, remain a close friend to the Charity.

The Reception and Dinner were the usual enjoyable occasions and, following presentation of 'scrolls' to the new Prize Fellows, they were welcomed into the Lister Institute family in traditional style!

## Conclusion

As always, the Cambridge Fellows' meeting was a great success, not only giving an insight into the high quality research of those who gave presentations but also the opportunity for Fellows and Members to speak informally about science and careers. We know from talking to the current Fellows how highly they value the opportunity to mix with their senior colleagues and discuss their research and the challenges of academia.

Another extremely enjoyable and informative part of the role of Chairman has been listening to the Prize Fellows give seminars in their own departments, hearing how the award has helped them develop their research groups and talking to other members of their departments about the research environment and local funding issues. We never miss the opportunity to remind our hosts for the day that applications to the Lister Institute in subsequent annual competitions are welcomed.

To all of those Fellows and their Host Institutions, Trevor Hince, Kate Law and I would like to express our thanks for their hospitality. In the past year we have visited UCL (Emmanuel Boucrot), Dundee (Robert Ryan), Cambridge twice (Erica Watson and Thóra Káradóttir),

Birmingham (Aga Gambus) and Sheffield (Steve West). All of these events are unique, reflecting both the character of the speaker and that of their departments. But what they have in common is an opportunity to underline the achievement of the Fellow in gaining the award as well as publicising our Fellowships. Often success in one year is followed by more applications from the same institution the next! What is also pleasing is that the Lister Institute Prize more often than not results in additional support to the Fellow, either in terms of facilities or funding, from the Host Institution.

It is very obvious from our travels that the Lister Institute is indeed 'nurturing the future leaders in biomedical research'!

At this point it is fitting that I again pay tribute to Professor Patrick Maxwell and all the members of the Scientific Advisory Committee, since it is abundantly clear that they are doing an excellent job in selecting the very best individuals for the award of Lister Institute Prizes. I am also indebted to my colleagues on the Financial and Investment Committee and the Governing Body, particularly in this year for their foresight in establishing a guaranteed £5m fund, ensuring that, for at least the next five years, we can award at least five new Fellowships each year.

I am delighted to remind everyone that the Lister Institute has a very special year ahead. In 2016 it will be the 125th anniversary of the foundation of the Lister Institute and we plan to celebrate this milestone in Cambridge on the 1st September with a special celebratory meeting involving invited speakers and special guests. We have also commissioned an anniversary publication that will focus on the 'modern day' achievements of the Institute including the stories of some of our current and recent Fellows and the impact that Lister Institute scientists have had on science and medicine today. Integral to these celebrations will be a reflection on the unique partnership that has existed and been enjoyed over 125 years, between the Lister Institute and the Guinness family.

Finally, it is as ever a pleasure and a privilege to be the Chairman of the Lister Institute of Preventive Medicine. The strength of the Institute is the people associated with it, whether they be Trustees, Members of the Governing Body and its sub-committees, the Membership, our Fellows or the staff, and to all I offer my sincere thanks and warmest appreciation.

ALEX MARKHAM  
Chairman





Pictured on this page:

*Top row, l-r:* Former Chairman Dame Bridget Ogilvie, current Chairman Professor Sir Alex Markham, Professor Mark Pepys and Professor Robin Irvine

*Centre:* Professor Frances Platt, Dr Fiona Wardle and Ms Kate Law, newly-appointed Lister Director

*Bottom:* Professors Ian Jackson and Corinne Houart with Dr David Lyons



## The 2015 Annual Fellows' Meeting at Christ's College, Cambridge

Pictured on this page:

*Left:* Dr Trevor Hince and Ms Jacky Wilson, Lister Accountant

*Centre:* Professor Sir Alec Jeffreys with Governor Mr Andrew Hutton, Dr Erica Watson and Dr Ragnhildur Karadottir

*Bottom left:* Dr Sally Prigent and Dr Madan Babu

*Bottom right:* Professor Annette Dolphin and Dr Agnieszka Gambus





## REPORT OF THE GOVERNING BODY

for the year ended 31 December 2015

The Governing Body presents its Annual Report under the Charities Act 2011 together with the audited Financial Statements of the Charity for the year ended 31 December 2015. The Financial Statements have been prepared in accordance with the accounting policies set out in Note 1 (pages 29-30) to the Financial Statements and comply with the Companies Act 2006, the FRS102 Charities SORP and the documents governing the constitution of the Charity.

### REFERENCE AND ADMINISTRATIVE DETAILS

Reference and administrative information is set out on pages 3 and 4 of this report.

#### ***Members of the Governing Body, Directors and Trustees***

The members of the Governing Body are, for the purposes of company law, Directors of the Institute and, for the purposes of charity law, Trustees of the Institute and throughout this report are collectively referred to as the Trustees. Details of the Trustees serving throughout the year, unless otherwise stated, are set out on page 3.

### STRUCTURE, GOVERNANCE AND MANAGEMENT

#### ***Constitution***

The Institute is registered with the Charity Commission for England and Wales (registration number 206271). It is incorporated and registered in England and Wales under the Companies Act 2006 as a company limited by guarantee and not having a share capital (company number 34479). It is governed by its Articles of Association and has charitable status.

#### ***Appointment and Re-appointment of Trustees***

The Trustees are the fifteen members of the Governing Body of whom six are appointed by the members at the annual general meeting. A maximum of six further Trustees are appointed by the Governing Body and there are currently four such appointees. One additional member is Lord Iveagh's representative, another is Professor Sir Alec Jeffreys who was appointed to life-membership, and the final member, Professor Cheryl Tickle, is the representative of the Royal Society. Trustees, other than the two nominated representatives, Professor Sir Alec Jeffreys and exceptionally those appointed by the Governing Body, generally serve for a maximum of six years and a system of planned rotation is in place. Currently two positions are deliberately being kept vacant. When considering appointment or nomination for election as Trustees, the Governing Body has regard to the specialist skills needed.

#### ***Induction and Training of Trustees***

New Trustees undergo induction sessions with the Chairman, Treasurer and Director during which they will gain an understanding of the Institute's structure, activities, financial position and future strategies. Prior to appointment they will attend, as 'observers', one meeting of the Governing Body. New Trustees will also be made aware of their legal obligations with regard to charity and company law. In addition, new Trustees will be advised of appropriate literature and training courses.

#### ***Organisation***

The Institute is governed by its Governing Body which is responsible for setting policies, authorising actions on all significant operational issues and ensuring legality and good practice. The Governing Body meets formally twice a year.

Specific authorities are delegated to two sub-

Committees in particular areas. The Scientific Advisory Committee (see page 4 for membership) has responsibility for the selection of the Lister Prize Fellows and the monitoring of their scientific activities, as well as providing scientific and medical advice to the Governing Body as required. In 2015 the peer review processes of the SAC were audited by the Association of Medical Research Charities and found to be meeting the highest standards. The Finance and Investment Committee (see page 4 for membership) has responsibility for interaction with the Institute's investment advisors, ensuring implementation of the Institute's investment policy and monitoring performance. It prepares and submits to the Governing Body the annual budget, and subsequently monitors performance against it. It also advises the Governing Body, as required, on other financial and risk matters.

The routine management of the Institute's activities is undertaken by its Director, aided by the Administrator and the Accountant. All staff work from home.

### **Risk Management**

The Trustees assess the risks facing the Institute and review the effectiveness of the controls to monitor and mitigate them. A Risk Management Register is maintained and formally reviewed annually by the Governing Body.

The key controls used by the Institute include:

- Formal agendas for all Governing Body meetings
- Strategic planning, budgeting and management accounting
- Formal written policies
- Clear authorisation and approval levels
- Regular review of Fellows' scientific reports

The specific risk of bribery associated with any of the Institute's activities has been reviewed, and clear policies and procedures have been

developed and communicated to all Trustees, staff and Members.

The Institute maintains a 'Register of Interests' for all Governing Body and committee members as well as principal staff and operates a clear declaration of interests policy and procedures for all meetings.

The principal risk facing the Institute lies in its ability to maintain and protect the value in real terms of its investments and to generate from them, on a long-term basis, a consistently high overall return. This risk is mitigated by the Institute's appointment of experienced investment managers with a proven track record; by internal controls that allow close and regular monitoring of their performance against benchmarks; by the Institute's requirement of its investment managers to re-tender periodically and competitively for appointment – the last review was in October 2012 and the next is planned for 2017, and by regular meetings that formally review investment performance and policy, and include one-to-one presentations by the investment managers.

Investment Policy Statements are in place for the Lister Institute and its investment partners. These are reviewed on an annual basis.

### **Objectives and Activities**

The statutory Object of the Institute is to further understanding and progress in preventive medicine by promoting excellence in biomedical research in the UK.

When founded in 1891, the Institute sought to achieve this objective by establishing a research institute specialising in the area of 'infections' and their prevention by immunisation and other means. It complemented these research activities by the production and supply of materials such as vaccines and anti-toxins.

The Institute continued in this mode until the late 1970s when increasing financial and regula-

tory pressures caused the cessation of these activities. Proceeds from the resultant sale of land and buildings created the investment funds from which present-day activities are financed; at 31 December 2015 these funds stood at £38.57m. From the 1980s the Institute has pursued its objective by the provision of grant funding to facilitate the research and careers of high quality individuals working in areas of bio-medicine relevant to preventive medicine. It has done this because it believes that the acquisition and advancement of knowledge is crucial to the understanding of health and disease and that research to achieve this is driven forward by high quality individuals and their supporting staff.

#### *Principal Activities*

In pursuance of this objective, during 2015 the Institute awarded five new Prize Fellowships. In addition, the Institute has continued its Summer Studentship scheme which enables up to twenty-five undergraduates per year to work with Lister Institute Fellows or former Fellows in order to gain experience of biomedical research with the hope that they might consider it as a career.

#### **Achievement and Performance**

The Scientific Advisory Committee has monitored the performance of the current twenty-one Lister Institute Prize Fellows, through detailed review of the annual reports on their research that include details of all publications and presentations. The Scientific Advisory Committee has reported to Trustees that it is of the view that all Fellows are undertaking high quality research and producing new knowledge that will contribute significantly to our understanding of disease, its causes, treatment and prevention. The reports of the research undertaken by the Summer Students have also been reviewed and found to be very satisfactory.

Five Lister Institute Prize Fellowships were awarded in 2015 to Drs Gambus, Káradóttir, Mostowy, Watson and West, from a field of 90 initial applicants, following extensive scientific review of their applications and final interview by the Scientific Advisory Committee. (More details of the Prize Fellows and their research are provided on page 8). Each Prize Fellowship provides £200,000 that may be spent over five years on the recipient's research, although the funds are provided to the host institution at the commencement of the award.

Twenty-five Summer Studentships were awarded in 2015. Each is a £2,000 student bursary and is paid to the host institution at the commencement of the award for the support of the student for up to a ten-week period.

The Institute maintained its commitment to fostering scientific interchange and collaboration within the Fellowship by holding its 31st Annual Research Fellowship meeting at Christ's College, Cambridge.

#### **Public Benefit**

Insofar as the statutory objectives, aims and activities of The Lister Institute of Preventive Medicine are to further understanding in preventive medicine by promoting biomedical research as set out on pages 19 & 20 of this Report, the Trustees have considered the Charity Commission's guidance on public benefit, including the guidance 'Public benefit: running a charity (PB2)'.

The public benefit of the Institute's grant-making is clearly identifiable in the 'Achievement and Performance' paragraphs above and in the list of Research Prize Fellows together with their areas of research on pages 9 to 12 of the Chairman's report. All Lister Institute Fellows are actively encouraged, where appropriate, to develop their research findings for potential public benefit and the Scientific Advisory

Committee has regard to this when reviewing their research reports. The Lister Institute therefore benefits the public or a sector of it without imposing any restrictions. Applications from individuals are accepted only when demonstrably consistent with the charitable objectives of the Institute.

### **Impact**

The impact of the activities of a medical research charity can be measured at many levels ranging from the growth of knowledge to direct patient/public benefit. Often the transition from the former to the latter may take many years and the involvement of several organisations. The Institute requires that the results of the research it supports are published and disseminated; that, where appropriate, significant intellectual property is protected via patents; and that its commercial development is encouraged. Several biotechnology companies have been formed around the findings of Institute-sponsored research and there are several interactions with large pharmaceutical companies. A prime example of the impact of research is DNA fingerprinting, which was discovered by Sir Alec Jeffries when a Lister Institute Fellow and has become an indelible part of society, helping to prove innocence or guilt in criminal cases, resolving immigration arguments and clarifying paternity.

### **Investment Policy and Performance**

The Institute's investment objective is to develop and maintain its financial resources through the selection of investments, consistent with an acceptable level of risk.

The Institute's investment portfolio is split between Cazenove Capital Management and Partners Capital LLP who both operate under mandates agreed in advance with the Finance and Investment Committee. These mandates set

out an overall target asset allocation with allowable ranges for each category of asset.

Both investment managers invest on a total returns basis through a variety of pooled funds and in accordance with the Institute's overarching 'Investment Policy Statement' (IPS), which states the overall investment objective and sets the investment return objectives, the risk parameters, the performance measures and review procedures for the portfolio. The Institute's IPS was revised in the autumn of 2013 and again in 2015, as a result of the establishment of the liquidity reserve. Specific versions were also agreed for each of the investment managers to reflect their individual investment approaches. The IPSs are reviewed annually. The investment managers are informed at the beginning of the financial year of the Institute's likely cash requirements, both in terms of the amount and the timing of any draw-down, and are asked to keep in an income or cash account sufficient funds to meet them. The Institute has in place an ethical investment policy which does not permit direct investment in tobacco or tobacco-related companies.

The Institute's overall financial return objective is to preserve and if possible enhance the purchasing power of its portfolio assets, net of costs and approved withdrawals, over rolling three-year periods. This goal is synonymous with the pursuit of a time-weighted net return on portfolio assets that equals and if possible exceeds cost inflation as measured by the UK Consumer Price Index plus the Institute's long-term spending rate of 3-4% measured over corresponding three-year periods. This goal has been achieved over the most recent three-year period.

The performance of the investment portfolio is reviewed by the Finance and Investment Committee, which had two meetings in the year with the investment advisors to review performance, liquidity within the portfolio, and the due

diligence undertaken on potential new investment vehicles. In addition, the Institute receives detailed quarterly valuation and transaction reports. In a year that saw moderate stock market growth the fund has risen from £37.296m to £38.568m. The decision to withdraw and place £5m in a Liquidity Account was based both on the recent strong growth of the portfolio but also concerns about future market volatility and performance. This decision will ensure that five Prize Fellowships can be awarded for five years from 2015.

More details of the Institute's activities are set out in the Chairman's Report on pages 5 to 15.

## FINANCIAL REVIEW

### *Allocation of Resources*

The Institute, which does not seek to raise funds from the public, depends primarily on investment returns to meet its pension provision payments, administrative expenditure and expenditure in furtherance of the Charity's objectives. The total return on investments for the year was realised/unrealised gains of £920,000 and investment income of £730,000. Payments are currently made to five pensioners who were employees of the Lister Institute. The Finance and Investment Committee reviews the salaries of key personnel on an annual basis.

The resources expended totalled £1.462m of which £1.193m was resources expended for the Institute's charitable activities.

The Prize Fellowships are fixed sum awards and therefore, expenditure can be regulated by altering the number and/or value of prizes awarded each year. In 2015, due to the substantial increase in the value of the investment portfolio and good returns, the Trustees felt able to award five Prizes and to maintain their value at £200,000 each. The Summer Studentship scheme

at a total cost of £50,000 can be reviewed each year with regard to both number and value. Twenty-five were funded this year. As previously described, a £5m portfolio has been established to ensure that the number and level of awards is sustainable over the next five years.

### *Reserves Policy*

The policy of the Trustees is to maintain adequate financial resources to provide income to meet current and future commitments as they fall due and ensure that adequate funds remain available to enable them to make awards in perpetuity.

The adequacy of the level of reserves (£38.6m in 2015) and the continuing appropriateness of the policy are reviewed on an annual basis by the Trustees. As the current level of investments now just exceeds that of 2015, they feel satisfied with the policy over the long-term and, given that the Institute is not formally committed to awarding any Prizes beyond the current year, are confident in the ability of the Institute to maintain appropriate levels of activity in the short-term.

### *Plans for the Future*

The Institute's future policy is to continue to pursue its current objectives. It will therefore maintain the Prize Fellowship scheme, which it sees as a funding priority. The Summer Studentship scheme will also be maintained together with the opportunity for schools to receive talks from the Institute's Fellowship on science and biomedical subjects as part of an 'outreach' programme.

### *Statement of Trustee Responsibilities*

The Trustees (who are also directors of The Lister Institute of Preventive Medicine 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 SORP;
- make judgments and estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; 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 proper 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.

In so far as the Trustees are aware:

- there is no relevant audit information of which the charitable company's Auditor is unaware;
- 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.

By Order of the Governing Body

ALEX F MARKHAM  
Chairman

MICHAEL FRENCH  
Treasurer

18 June 2016

## INDEPENDENT AUDITOR'S REPORT

to the Members of The Lister Institute of Preventive Medicine

We have audited the financial statements of The Lister Institute of Preventive Medicine for the year ended 31 December 2015 which comprise the Statement of Financial Activities, the Balance Sheet and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice including FRS102: 'The Financial Reporting Standard Applicable in the UK and Ireland').

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 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 any party 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.

### **Respective responsibilities of Trustees and Auditor**

As explained more fully in the Trustees' Responsibilities Statement, the Trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

### **Scope of the audit of the financial statements**

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the charitable company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Trustees; and the overall presentation of the financial statements. In addition we read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements, and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

### **Opinion on financial statements**

In our opinion, the financial statements:

- give a true and fair view of the state of the charitable company's affairs as at 31 December 2015 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

**Opinion on other matters prescribed by the Companies Act 2006**

In our opinion, the information given in the Trustees' Annual Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

**Matters on which we are required to report by exception**

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; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of Trustees' remuneration

specified by law are not made; or

- we have not received all the information and explanations we require for our audit; or
- the Trustees were not entitled to prepare the financial statements in accordance with the small companies regime and take advantage of the small companies exemption in preparing the Trustees' Annual Report and from preparing a Strategic Report.

Nicholas Brooks (Senior Statutory Auditor)  
for and on behalf of Kingston Smith LLP,  
*Statutory Auditor*

Devonshire House  
60 Goswell Road  
London EC1M 7AD

18 June 2016



## STATEMENT OF FINANCIAL ACTIVITIES

for the year ended 31 December 2015

	Notes	2015	2014
		£'000	£'000
<b>Income and endowments from:</b>			
Investments	2	730	597
Other incoming resources	3	9	48
<b>Total incoming resources</b>		<b>739</b>	<b>645</b>
<b>Expenditure on:</b>			
Cost of raising funds:			
Investment management costs	4	(238)	(214)
Charitable Activities:			
Prizes & Summer Studentships	6	(1,224)	(1,000)
<b>Total expenditure</b>		<b>(1,462)</b>	<b>(1,214)</b>
Net gains on investment		920	1,628
<b>Net income</b>		<b>197</b>	<b>1,059</b>
<b>Other recognised gains/(losses):</b>			
Actuarial losses on defined benefit schemes	13	(11)	(14)
<b>Net movement in funds</b>		<b>186</b>	<b>1,045</b>
<b>Reconciliation of funds:</b>			
Total funds brought forward		38,338	37,293
<b>Total funds carried forward</b>		<b>38,524</b>	<b>38,338</b>

All items in the above Statement of Financial Activities relate to continuing operations for both years. The Institute has no other recognised gains and losses other than as stated above and hence no separate income and expenditure statement has been shown.

The notes set out on pages 29 to 34 form part of these financial statements.

## BALANCE SHEET

as at 31 December 2015

Company no. 34479

	Notes	2015 £'000	2014 £'000
<b>Fixed assets</b>			
Investments	9	38,568	37,296
<b>Total fixed assets</b>		<b>38,568</b>	<b>37,296</b>
<b>Current assets</b>			
Debtors	10	10	48
Cash at bank and in hand	11	155	1,441
<b>Total current assets</b>		<b>165</b>	<b>1,489</b>
<b>Current liabilities</b>			
Creditors: amounts falling due within one year	12	(32)	(263)
<b>Net current assets</b>		<b>133</b>	<b>1,226</b>
<b>Total assets less current liabilities</b>		<b>38,701</b>	<b>38,522</b>
<b>Creditors: amounts falling due after more than one year</b>			
Pension provision	13	(177)	(184)
<b>Net assets</b>		<b>38,524</b>	<b>38,338</b>
<b>Represented by</b>			
Unrestricted funds		38,524	38,338
<b>Total charity funds</b>		<b>38,524</b>	<b>38,338</b>

The Trustees have taken advantage of the exemptions conferred by the Companies Act 2006, on the grounds that the Institute is entitled to the benefit of those exemptions as a small company.

These financial statements were approved by the Governing Body on 18 June 2016.

ALEX F MARKHAM	Members of the
MICHAEL FRENCH	Governing Body

The notes set out on pages 29 to 34 form part of these financial statements.

**CASH FLOW STATEMENT**

for the year ended 31 December 2015

	2015	2014
	£'000	£'000
<b><i>Cash flow/(outflow) from operating activities</i></b>		
Net cash (used in)/provided by operating activities	(1,664)	(1,388)
<b><i>Cash flows from investing activities</i></b>		
Investment income and interest received	730	597
Proceeds from disposal of fixed asset investments		
excluding endowment funds	14,534	9,360
Acquisition of fixed asset investments excluding endowment funds	(17,556)	(7,981)
Other movements on investments	2,670	203
	(1,286)	791
Net increase in cash and cash equivalents	(1,286)	791
Cash and cash equivalents at beginning of year	1,441	650
<b>Cash and cash equivalents at end of year</b>	<b>155</b>	<b>1,441</b>
<b><i>Reconciliation of net income/(expenditure) to net cash flow from operating activities</i></b>		
Net income including endowments	186	1,045
<b><i>Adjustments for:</i></b>		
Net (gains)/losses on investments	(920)	(1,628)
Investment income	(730)	(597)
Decrease/(increase in debtors	38	(40)
Increase/(decrease in creditors	(238)	(168)
<b>Net cash (used in)/provided by operating activities</b>	<b>(1,664)</b>	<b>(1,388)</b>

The notes set out on pages 29 to 34 form part of these financial statements.

# NOTES TO THE FINANCIAL STATEMENTS

for the year ended 31 December 2015

## 1 PRINCIPAL ACCOUNTING POLICIES

### ***Basis of preparation***

The Financial Statements have been prepared for the first time, in accordance with the Statement of Recommended Practice, Accounting and Reporting by Charities (FRS102 SORP). The transition date to FRS102 was 1 January 2014 and the last financial statements prepared under the previous financial reporting framework were prepared for the year ended 31 December 2014. The Financial Statements are prepared in accordance with the historical cost convention modified by the revaluation of investments. The charity is a Public Benefit Entity as defined by FRS102.

The principal accounting policies adopted in the preparation of the Financial Statements are as follows:

### ***Income***

All incoming resources are accounted for on a receivable basis.

### ***Prizes and summer studentships***

The cost of Research Prize Fellowships is charged in the year awarded.

### ***Expenditure***

The costs of raising funds include those fees payable to the Institute's investment fund managers for the management of the Institute's investment portfolio. These are accounted for on an accruals basis.

Charitable activities comprise all expenditure directly relating to the objects of the charity and are accounted for on an accruals basis. The allocation of expenditure between governance and management, administration and support costs is reviewed on an annual basis to ensure the allocation is appropriate. Indirect costs are generally treated as falling into the latter category with the exception of a proportion of salary and related costs, which have been classified as governance costs.

In addition to auditor's remuneration, governance costs comprise the proportion of staff costs associated with the time spent on the preparation of the statutory accounts and other governance issues, together with honoraria remuneration provided to members of the Institute's Scientific Advisory Committee for their duties in selecting the Prize Fellows.

### ***Supplementary pensions and staff pensions***

An estimate of the full provision is made in the Financial Statements for the costs of future supplementary payments. The provision and charge to income are reviewed annually by the Trustees in the knowledge that the number of persons receiving the supplementary pensions will not increase. The pension costs are assessed in accordance with actuarial advice and these costs are accounted for in accordance with FRS102 SORP.

Existing employees participate in a defined contribution scheme, the costs of which are expensed as incurred. These disclosures are made in accordance with FRS102 SORP.

### ***Investments***

Investments are shown at market value in the balance sheet. Changes in the market value are included in the Statement of Financial Activities as realised and unrealised investment gains or losses in the year in which they arise. Investments denominated in foreign currencies are valued at year-end rates of exchange.

### ***Cash flow statement***

The Charity has included a cash flow statement in accordance with FRS102 SORP.

... / continued

## 1 PRINCIPAL ACCOUNTING POLICIES (continued)

### Taxation

The organisation is a registered charity and has obtained exemptions from taxation under Part 11, Chapter 3 of the Corporation Tax Act 2010. This exemption will remain as long as income is compatible with that section and expenditure is applied to charitable purposes only.

### Critical accounting estimates and areas of judgement

In preparing financial statements it is necessary to make certain judgements, estimates and assumptions that affect the amounts recognised in the financial statements. The trustees consider the estimates involved in the valuation of investments to have most significant effect on amounts recognised in the financial statements. These are taken directly from Investment Manager's reports.

In addition the company has an obligation to pay pension benefits to certain employees. The cost of these benefits and the present value of the obligation depend on a number of factors including: life expectancy, salary increases, asset valuations and the discount rate on corporate bonds. Management estimates these factors in determining the net pension obligation in the balance sheet. The assumptions reflect historical experience and current trends. See Note 13 for the disclosures relating to the defined benefit pension scheme.

### Going Concern

The trustees have assessed whether the use of the going concern basis is appropriate and have considered possible events or conditions that might cast significant doubt on the ability of the charity to continue as a going concern. The trustees have made this assessment for a period of at least one year from the date of approval of the financial statements. After making enquiries, the trustees have concluded that there are no material uncertainties that cast significant doubt on the charity's ability to continue as a going concern. The charity therefore continues to adopt the going concern basis in preparing its financial statements.

### Adjustments arising on transition to FRS102

The following adjustments have also been made in order to comply with the new SORP/FRS102 which have had no effect on total funds or the income and expenditure account but which have affected the presentation of certain items in the statement or on the balance sheet. The main items were:

- Governance costs are no longer presented as a separate category of expenditure in the Statement of Financial Activities as they are not regarded as part of support costs, which are allocated to the cost of activities undertaken by the Charity.
- Gains/losses on investment assets are now shown within the total of net income.
- No re-statement of any figures in prior year amounts were necessary.

### Financial instruments

The company has elected to apply the provisions of Section 11 'Basic Financial Instruments' and Section 12 'Other Financial Instruments Issues' of FRS102 to all of its financial instruments. Financial instruments are recognised in the company's balance sheet when the company 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.

With the exceptions of prepayments and deferred income all other debtor and creditor balances are considered to be basic financial instruments under FRS102. See Notes 10 and 12 for the debtor and creditor notes.

## 2 INVESTMENT INCOME

	2015	2014
	£'000	£'000
Income from fixed asset investments	726	594
Bank interest receivable	4	3
	730	597

### 3 OTHER INCOME

	2015	2014
	£'000	£'000
Royalty income	9	48

Royalty income is earned from Cancer Research Technology as a result of Revenue sharing related to Mammalian Cell research studies.

### 4 INVESTMENT MANAGEMENT COSTS

	2015	2014
	£'000	£'000
Partners Capital LLP	141	122
Cazenove Capital Management	97	92
Total investment management fees	238	214

Investment management fees referred to here are those accrued fees relating to the management of the Institute's investment portfolios in 2015.

### 5 GOVERNING BODY AND STAFF COSTS

#### Emoluments of members of the Governing Body

No member of the Governing Body received any emoluments in respect of services to the Institute during the year (2014: nil). Travel expenses of £1,358 were paid relating to the claims of six members in connection with their attendance at meetings (2014: £1,287, six members).

Members of the Governing Body who are also members of the Scientific Advisory Committee receive remuneration in relation to their services to the committee. An honorarium of £1,500 (2014: £1,500) was paid to one of the members, the remainder all received £1, (2014: £1,000)

#### Employee information

The average number of persons employed by the Institute during the year was four (2014: three), three of whom are part-time (2014: two). From July-Dec 2015 Ms Law was employed as Director-designate to replace Dr Hince upon his retirement (Dec 2015), both were remunerated for that period. All were employed in an administrative and support capacity. No employees earn over £60k p.a. (2014: nil).

Key management personnel include the Trustees, the Director and in 2015 Director-designate, (in 2014 the Trustees and Director only). The total employee benefits of the charity's key management personnel were £61,880 (2014: £44,220).

#### Staff costs

	2015	2014
	£'000	£'000
Gross salaries	97	78
Pension contributions	3	3
Employer's national insurance	6	8
Total	106	89

The salary costs are allocated under governance where related to statutory accounts preparation, the balance being reported within charitable activities. A small employer's NI rebate was claimed for the tax years of 2013/14 and 2014/15, no previous claim has been available.

## 6 PRIZES & SUMMER STUDENTSHIPS

	2015	2014
	£'000	£'000
Prize awards	1,000	800
Summer Studentship payments	50	50
Support costs (see Note 7)	50	45
Salaries (see Note 5)	93	78
Governance costs (see Note 8)	31	27
	1,224	1,000

## 7 SUPPORT COSTS

	2015	2014
	£'000	£'000
Office expenses	10	9
Travel expenses	4	3
Professional fees	4	3
Honoraria and events	23	21
Pension costs (see Note 13)	9	9
	50	45

These costs are all considered to be costs to support resources expended on charitable activities.

## 8 GOVERNANCE COSTS

	2015	2014
	£'000	£'000
Auditors' remuneration	10	10
Staff costs (see Note 5)	13	11
Honoraria and events	8	6
	31	27

No non-audit services were provided by the auditors during the year (2014: none).

## 9 INVESTMENTS

Listed investments are valued at middle market quotations ruling at the year-end

	2015	2014
	£'000	£'000
Market value at beginning of year	37,296	37,250
Purchases during the year at cost	17,556	7,981
Proceeds of sales during the year	(14,534)	(9,360)
Reinvested income for the year	557	418
Movement in un-invested cash	(3,127)	1,379
Cash withdrawn	(100)	(2,000)
Net change in market value	920	1,628
Market value at year-end	38,568	37,296

The portfolio's asset allocation was as follows:

	2015	2014
	£'000	£'000
<i>UK investments</i>		
Equities	6,584	7,569
Fixed interest	4,977	2,482
Other (including private equity, property, commodities, alternatives and inflation-linked bonds)	7,191	3,862
Cash	681	512
Total UK investments	19,433	14,425
<i>Non-UK investments</i>		
Equities	8,323	15,461
Other (including private equity, property, commodities and alternatives)	10,639	6,538
Cash	173	872
Total non-UK investments	19,135	22,871
Total	38,568	37,296

At 31 December 2015 no single shareholding exceeded 5% of the total value of investments (2014: none).

Historical cost related to the closing position of 2015 was £30.7m (2014: £27.6m).

## 10 DEBTORS

	2015	2014
	£'000	£'000
Prepayments	1	0
Accrued income	9	48
Total	10	48



## 11 CASH

	2015	2014
	£'000	£'000
Cash at bank	155	1,441

## 12 CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	2015	2014
	£'000	£'000
Taxation and social security	4	3
Accruals and deferred expenditure	28	260
<b>Total creditors falling due within one year</b>	<b>32</b>	<b>263</b>

## 13 PROVISION FOR LIABILITIES AND CHARGES

This represents a provision for future supplementary pension payments, in respect of ex-employees, based on their salary and length of service. The pensions are unfunded, with payments made out of the Institute's funds as they fall due.

Movements in the pension provision during the year were as below:

	2015	2014
	£'000	£'000
Liability at beginning of period	184	186
Plus interest cost	9	9
Plus actuarial gains and losses	11	14
Benefits paid	(27)	(25)
<b>Liability at end of period</b>	<b>177</b>	<b>184</b>

The tables below state the FRS102 actuarial assumptions used to estimate the pension provision.

### *Principal actuarial assumptions*

Valuation at 31 December 2015	2015	2014
Rate of increase to pensions in payment	3.0%	3.0%
Rate used to discount scheme liabilities	5.0%	5.0%

The post-retirement mortality assumption uses the PCA00 base tables (year of birth) with improvements equal to medium cohort with a 1% minimum.

## 14 RELATED PARTY TRANSACTIONS

There were no related party transactions in the year (2014: none).



**ANNUAL REPORT AND FINANCIAL STATEMENTS**  
for the year ended 31 December

**2016**



The Institute was founded in 1891 and for the next 80 years played a vital role in the development of the laboratory aspects of preventive medicine as an independent research institute in the UK.

Financial pressures in the 1970s led to the closure of the research and production facilities and the conversion of the Lister Institute into a highly successful trust awarding prestigious Research Fellowships from 1982 which in 2003, again because of financial pressures, were revised to become Prize Fellowships.

The cover portrait of Lord Lister reproduced by courtesy of the Royal Veterinary College

# LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2016

## THE GOVERNING BODY

Professor Sir Alex Markham, DSc, FRCP, FRCPath, FMedSci, *Chairman*

Mr Michael French, BSc(Eng), FCA, *Hon Treasurer*

Professor Judith Armitage, BSc, PhD, FRS

Professor Wendy Bickmore, BA, PhD, FMedSci, FRSE

Professor Sir Adrian P Bird, CBE, FRS, FRSE

Professor Rebecca Fitzgerald, MD, FRCP, FMedSci

Hon Rory M B Guinness

Professor Douglas Higgs, MBBS, MRCPPath, DSc, FRCP, FRCPath, FRS

Mr Andrew Hutton, MA, CFA

Professor Sir Alec J Jeffreys, CH, DPhil, FMedSci, FRS

Professor Patrick Maxwell, FRCP, FMedSci

Mr Matthew Pintus, BA

Professor Cheryl A Tickle, CBE, FRSE, FMedSci, FRS

## SENIOR MANAGEMENT

*Secretary and Director:* Ms Kate Law

### *Business Address*

PO Box 2502  
Watford  
WD18 1AE

### *Solicitors*

Macfarlanes  
20 Cursitor Street  
London EC4A 1LT

### *Bankers*

Messrs Coutts & Co  
St Martins Office  
440 Strand  
London WC2R 0QS

### *Auditors*

Kingston Smith LLP  
Devonshire House  
60 Goswell Road  
London EC1M 7AD

### *Registered Office*

Macfarlanes  
10 Norwich Street  
London EC4A 1BD

### *Investment Advisors*

Cazenove Capital Management  
12 Moorgate  
London EC2R 6DA

### *Partners Capital LLP*

5 Young Street  
London W8 5EH

*Website:* [www.lister-institute.org.uk](http://www.lister-institute.org.uk)

*Telephone:* 01923 801886

# LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2016

## THE SCIENTIFIC ADVISORY COMMITTEE

Professor Patrick Maxwell, FRCP, FMedSci, *Chairman*

Dr Ian Adams, BSc, PhD

Professor Jon Cohen, FRCP, FMedSci

Professor Cyrus Cooper, OBE, MA, DM, FRCP, FFPH, FMedSci

Professor William Deakin, PhD, FRCPsych, FMedSci

Professor Annette C Dolphin, PhD, FRS

Professor Margaret C Frame, PhD, FRSE, FMedSci (*Appointed 2 September 2016*)

Professor David Holden, FMedSci, FRS (*Retired 2 September 2016*)

Professor Corinne Houart, PhD

Professor John Iredale, FRCP, FMedSci, FRSE

Professor Nick Lemoine, MD, PhD, FRCPath, FMedSci

Professor Christoph M Tang, MB, ChB, PhD, FMedSci (*Appointed 2 September 2016*)

Professor Jonathan Waltho, BSc, PhD

Professor Colin Watts, FRS, FRSE, FMedSci

*Secretary:* Ms Kate Law

## THE FINANCE AND INVESTMENT COMMITTEE

Mr Michael French, BSc(Eng), FCA, *Chairman*

Professor Judith Armitage, BSc, PhD, FRS

Hon Rory M B Guinness

Mr Andrew Hutton, MA, CFA

Professor Sir Alex Markham, DSc, FRCP, FRCPath, FMedSci

Mr Matthew Pintus, BA

*Secretary:* Ms Kate Law

# CHAIRMAN'S ANNUAL REPORT

for the year ended 31 December 2016

**THE YEAR 2016** was a very special year for the Lister Institute, marking the 125th anniversary of its inauguration in July 1891. We celebrated this occasion with record attendance at an extremely successful two-day meeting in Cambridge and also commissioned an anniversary publication. We were delighted to receive support for these activities in the form of generous donations from the Wellcome Trust and the Lauchentilly Charitable Foundation.

We have, encouragingly, seen a continued improvement in the Institute's finances with a rise in the value of our investment portfolio to just over £41.5m. Against a background of BREXIT and increasingly volatile markets, the Governing Body ratified a recommendation by the Finance and Investment Committee to maintain, on a rolling basis, a secure account of £5m, thereby ensuring that the Lister Institute is able to award at least five prizes every year, for a minimum of five years.

On the research front, we received a record number of applications (99) for the Prize Fellowship. Lister Institute Fellows and former Fellows continued to undertake excellent research, publish high-impact papers and gain academic advancement on many fronts. The Institute's philosophy of supporting research through the identification of top-quality individuals and then helping them to develop their activities is as strong and relevant today, via the Prize Fellowship scheme, as it was in 1982 when the first Senior Fellowships were awarded. My visits to Host Institutions and discussions with Fellows and Members of the Lister Institute give me great confidence that the Lister Institute Prize is still seen as a highly prestigious award, with the flexibility that it offers being its greatest strength.

I am delighted to report that two people closely associated with the Lister Institute were deservedly recognised in the New Year's Honour's list; Professor Sir Alec Jeffreys (former Fellow and now a member of the Governing Body) was made a Companion of Honour and Professor Stephen Inglis, former member of the Governing Body, was awarded a CBE.

## Governing Body and Administrative Matters

The Governing Body met twice during the year, once in April at the Royal Society and again before the start of the extended September Fellows' meeting in Cambridge.

I should like to thank all members of the Governing Body for the time which they

spend on the Institute's business and the thought which they give to its affairs. The Institute runs very effectively with only these two formal Governing Body meetings a year; one in Spring and the Autumn meeting, combined with the AGM and Fellows' meeting, in Cambridge. I am exceedingly grateful to my fellow Trustees for the speed with which they respond to Lister matters in the interim and the consideration they give to the Institute's business. The work of the Governing Body is made easier by the knowledge that two key areas, science and finance/investment, are so ably looked after by the relevant sub-Committees and I thank their members for all their efforts and dedication.

It is important that there is planned turnover of Trustees and this year it was my turn, as longest-serving elected member of the Governing Body, to stand for re-election. I am proud and humbled to be invited to serve such a prestigious body for another five years.

On a less positive note, I have to report an unfortunate and, in the history of the Lister, an unprecedented occurrence. We were informed that one of the current Lister Fellows was under investigation for scientific misconduct and, following a rigorous and independent review by the university concerned, the case was found to be proven. The Fellow left the university immediately and all unspent Lister funding (£182k) has been returned to the Institute and will appear in the 2017 accounts.

The Governing Body spent a considerable time discussing this situation and also the actions taken by the Chairman and Director to mitigate any potential reputational or financial risks to the Lister Institute. Members recommended some minor changes to the risk log and concluded that, given the circumstances, all appropriate actions had been taken.

I am extremely sad to report the death of Professor Sir Patrick Sissons, who served on the Governing Body from 1999 to 2004 during a very difficult time for the Institute. His wise counsel was of tremendous value. Professor Sissons will be remembered both for his groundbreaking research in nephrology and infectious disease, and for his leadership of the University of Cambridge's Clinical School, where he was Regius Professor of Physic. He focused on cytomegalovirus, a virus that is latent in the majority of humans but which can easily kill patients with suppressed immunity. His pioneering work in this field coincided with the emergence of the AIDS epidemic, caused by human immunodeficiency virus. He will be remembered as a brilliant clinical scientist, academic strategist and administrator;



wise, scrupulously fair and unstinting in support of others—especially younger academics and trainees.

Finally, a major contributor to the smooth running of the Institute is the efficiency of Kate Law and a small administrative team of Naomi King and Jacky Wilson and I thank them yet again on behalf of all Trustees.

## Institute Membership

Five Fellows, who completed their fellowship in 2016, have been welcomed into membership of the Institute. They are: Professor Victoria Cowling, University of Dundee; Professor Michael Eddleston, University of Edinburgh; Professor Josef Kittler, University College London; Professor Rob Klose, University of Oxford; and Professor Robin May, University of Birmingham.

## Financial Matters

During a period of global instability, including BREXIT and the US election, the Lister portfolio has out-performed our expectations at the beginning of the year. The overall value of the portfolio has increased by £2.92m in the previous twelve months resulting in reserves of just over £41.6m once £1m had been withdrawn to pay for this year's Fellowships. Both investment managers have performed well in challenging circumstances. The implications of BREXIT are, however, complex and long-lasting and, whilst the Lister benefitted from the diversity of its portfolio and from holding many of its investments overseas, the world economic picture is still very volatile; so prudence remains the 'watchword'.

The healthy level of reserves meant that, in 2016, the Institute was again able to fund five Prize Fellows (£1m) and twenty-five Summer Studentships (£50k). The level of reserves also informed a discussion by the Finance Committee on our ability to maintain £5m in a separate low volatility portfolio (established in 2015), for a rolling period of 5 years. This account enables the Institute to provide protection against market instability and make a clear statement about the intention to fund at least five awards for each of the next five years. The Governing Body endorsed this policy, on a rolling basis to be reviewed annually, as it demonstrates a commitment to human capital and gives a strong signal to the university sector that the Lister finances are in good order.

Another way of protecting the Lister portfolio against future instability is to

increase the proportion of illiquid funds from the current 20% to 30% or higher. A higher level of illiquid funds is standard practice in the charity sector and the Finance and Investment Committee agreed that Partners Capital should provide the Committee with a paper laying out the implications of such a change. These proposals will be considered at its first meeting in 2017.

All usual expenditures are in line with the agreed 2016 budget. Included in the 2016 budget is a one-off allocation of £20k to cater for the 125th Anniversary activities—largely accounted for by the additional meeting on Thursday and the costs of the publication. We were pleased to receive two donations (from the Wellcome Trust and the Lauchentilly Charitable Foundation) amounting to £9k to partially offset these costs. In addition to royalties of £9k from Cancer Research Technology we also received £85k from sales of shares in TauRX, a company established by an ex-Clinical Fellow Professor Claude Wischik, to develop drugs that have the potential to treat dementia.

The Institute's operational costs remained low at £193k, with investment management charges slightly lower than 2015, at £231k. The Lister Institute's total expenditure for 2016 was £1.291m.

As required by recent pension legislation, the three current employees of the Lister Institute have received formal letters from the Treasurer explaining the implications of the new legislation and the options available to them. All formalities have been concluded to the satisfaction of HMRC and there are no financial implications for the Institute.

It is good financial practice periodically to review the performance of investment managers and, as five years have passed since the last formal review, the Treasurer with the Finance and Investment Committee has, since the year-end, carried out a further review. In addition to Partners Capital and Cazenove four other firms were considered as alternatives. After listening to detailed presentations and considering alternative approaches however, the Committee decided that it was satisfied with the performance of its current investment managers and, with the agreement of the Governing Body, Partners Capital and Cazenove have been reappointed.

## **Scientific Activities**

### **Scientific Advisory Committee**

The work of the Scientific Advisory Committee in selecting the Prize Fellows is at


the heart of the Institute's activities. In 2016 we received the highest number of applications to date and the SAC was faced with the daunting task of selecting just five Prize Fellows from 99 proposals. The process proceeds with an initial screening and scoring by SAC members to arrive at a long-list. These candidates are then further evaluated by the SAC with the help of reviews from international researchers, to arrive at a short-list of eleven candidates who were then interviewed. Towards the end of the selection process the standards are very high and, coupled with the very diverse fields of research represented, the task of selecting the 'winners' is extremely difficult—it is a tribute to SAC members and their chairman that each year they identify some truly exceptional young researchers—and this year was no different. I'm also delighted to report an extremely encouraging gender balance amongst this year's winners—three of the five Fellows are women!

As with all Institute committees there is planned turn-over in the membership of the SAC and this year we were sorry to lose the services of Professor David Holden. The Institute owes him, and those who remain on the Committee, a debt of gratitude for their magnificent efforts in selecting the Prize Fellows and maintaining such high standards. When members step down and after each application round we review the SAC membership to ensure that we have the right mix of expertise and seek to recruit new members appropriately. I am delighted to report that Professor Christoph Tang, Professor of Cellular Pathology at the University of Oxford and Professor Margaret Frame, Science Director, CRUK Edinburgh Centre and Director, MRC Institute of Genetics and Molecular Medicine (IGMM) have agreed to join the Committee. I very much hope that they will enjoy their time on the Committee and gain satisfaction from promoting the careers of young researchers.

It was pleasing to see the Summer Studentship scheme strongly endorsed again by the Fellowship and we will continue to support twenty-five recipients. The scheme enables Lister Institute Fellows and former Fellows to offer places to outstanding undergraduate students who then have the opportunity to experience research in a first-rate laboratory. After the studentship is completed the Institute is sent both a scientific report and a personal statement on their experience by the student. In most cases it reinforces the student's wish to go on to do research via PhD training, but in a few it identifies that a career in research is not for them. The former is clearly preferable, although both are satisfactory outcomes.

## 2016 Lister Institute Research Prize Fellowship Winners

The recipients of the 2016 Lister Research Prize Fellowships, who each received the amount of £200k, were:

<b>Prize Winner</b>	<b>Title of Research</b>
 <b>Dr Cynthia Andoniadou</b> King's College London	Regulation of stem cell potential in the mammalian pituitary gland
 <b>Dr Susana Godinho</b> Queen Mary University of London	Regulation of paracrine signalling by centrosome amplification
 <b>Dr Muzlifah Haniffa</b> Newcastle University	<i>In vivo</i> kinetics and functional response of human mononuclear phagocytes during acute tissue inflammation
 <b>Dr Jan Rehwinkel</b> University of Oxford	Z-RNA and Z-DNA: Novel inducers of antiviral immunity
 <b>Prof Daniel Smith</b> University of Glasgow	Investigating the overlap between hypertension and bipolar disorder to identify new and repurposed medications for bipolar disorder

**Note:** The academic rank of each Prize winner is shown as at the date of the award.

## Current and Former Lister Institute Prize Fellows

The following have been awarded Lister Institute Research Prize Fellowships since the inception of the Prize Fellowship scheme. This is an outstanding group of scientists and represents a major contribution to the well-being of UK biomedical research:

<i>Fellow</i>	<i>Title of Research</i>	<i>Awarded</i>
<b>Dr M Madan Babu</b> MRC Laboratory of Molecular Biology, Cambridge	Dynamics of tRNA abundance and the regulation of protein expression levels	2014
<b>Dr Nina Balthasar</b> University of Bristol	Identifying the novel CREB coactivator TORC2's role in the hypothalamic pathways controlling energy homeostasis	2007
<b>Dr Oliver Billker</b> The Wellcome Trust Sanger Institute, Cambridge	In search of the xanthurenic acid receptor of malaria parasites – a potential target for transmission control	2004
<b>Dr Emmanuel Boucrot</b> University College, London	Mechanisms of cargo selection and vesicle formation in a novel pathway of endocytosis	2014
<b>Professor Nia Bryant</b> University of York	Using yeast as a model system to understand the insulin-dependent trafficking of GLUT4 in adipocytes	2004
<b>Dr Simon Bullock</b> MRC Laboratory of Molecular Biology, Cambridge	Mechanisms and neuronal functions of motor-driven transport	2008
<b>Professor Juan Burrone</b> Kings College London	The role of neuronal activity during synapse formation	2009
<b>Dr Vincenzo Costanzo</b> Cancer Research UK Clare Hall Laboratories	The role of ATM and ATR in preventing genomic instability	2006
<b>Professor Victoria Cowling</b> University of Dundee	Regulation and function of the 7-methylguanosine cap	2011
<b>Professor Daniel Davis</b> Imperial College, London	Nanotubes and synapses in immune cell communication	2005
<b>Professor Simon Draper</b> The Jenner Institute Oxford	Development of next-generation broadly-neutralising vaccines against the blood stage infection of human malarias	2013

*Continued overleaf*

<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Professor Michael Eddleston</b> University of Edinburgh	Prevention of deaths from late respiratory failure in organo-phosphorus pesticide poisoning	2011
<b>Professor Sherif El-Khamisy</b> University of Sheffield	The repair of oxidative and topoisomerase induced chromosomal strand breaks and human disease	2013
<b>Professor Rebecca Fitzgerald</b> University of Cambridge	Translational research programme for prevention of oesophageal adenocarcinoma	2008
<b>Dr Agnieszka Gambus</b> University of Birmingham	Identification and characterisation of Mcm7 ubiquitin ligase	2015
<b>Dr Holger Gerhardt</b> VIB Vesalius Research Centre KU Germany	Endothelial guidance in vascular patterning	2008
<b>Professor Fiona Gribble</b> University of Cambridge	Secretion of incretin hormones from the mouse intestine	2006
<b>Professor Andrew Jackson</b> University of Edinburgh	Cellular pathways determining human brain size	2009
<b>Dr Ragnhildur Karadottir</b> Welcome Trust-MRC Cambridge Stem Cell Institute	The role of neuronal activity in myelin repair	2015
<b>Professor Josef Kittler</b> University College London	Miro family proteins as regulators of synaptic bio-energetics and a locus for mitochondrial dysfunction in neurological disease	2010
<b>Professor Robert Klose</b> University of Oxford	Biochemical isolation and functional dissection of the CpG island proteome	2011
<b>Dr David Komander</b> MRC Laboratory of Molecular Biology, Cambridge	Bacterial interference with the ubiquitin system	2012
<b>Professor Paul Lehner</b> University of Cambridge	The role of HSP70 in MHC Class 1 mediated antigen presentation in human dendritic cells	2004
<b>Professor David Lyons</b> University of Edinburgh	Elucidating mechanisms of myelinated axon formation, function and repair using zebrafish	2012
<b>Professor Juan Martin-Serrano</b> King's College London	Functional parallels between HIV-1 budding and the last step of cell division	2008
<b>Professor Robin May</b> University of Birmingham	The molecular basis of latency and dissemination during cryptococcosis	2010
<b>Dr Serge Mostowy</b> Imperial College London	Bacterial autophagy and the cytoskeleton in host defence	2015

<i>Fellow</i>	<i>Title of Research</i>	<i>Awarded</i>
<b>Dr Akhilesh Reddy</b> University of Cambridge	Peroxiredoxins and redox oscillations in the circadian (24 hour) clockwork	2012
<b>Professor Tatjana Sauka-Spengler</b> Weatherall Institute of Molecular Medicine, Oxford	Decoding gene regulatory circuits controlling multipotency of neural crest	2013
<b>Dr Melina Schuh</b> Max Planck Institute for Biophysical Chemistry, Germany	Mechanisms of aneuploidy in human oocytes	2014
<b>Professor Kenneth Smith</b> University of Cambridge	Control of infection and autoimmunity by an inhibitory Fc receptor FcγR11b	2007
<b>Professor Grant Stewart</b> University of Birmingham	Investigating the role of the RIDDLE syndrome gene in promoting repair of DNA damage	2009
<b>Dr Anne Straube</b> University of Warwick	Microtubule-actin crosstalk in cell migration	2013
<b>Professor Tomoyuki Tanaka</b> University of Dundee	Mechanisms of kinetochore-microtubule interaction	2005
<b>Dr Sarah Teichmann</b> The Wellcome Trust Sanger Institute and EMBL-EBI, Cambridge	Decoding genetic switches in T helper cell differentiation	2010
<b>Professor Chris Thompson</b> University of Manchester	Identifying and characterising genes that control cell fate choice and social behaviour	2005
<b>Professor Daan van Aalten</b> University of Dundee	Structural mechanisms and specificity of O-GlcNAc signalling in the eukaryotic cell	2006
<b>Dr Fiona Wardle</b> Kings College London	Transcriptional control of mesodermal cell differentiation in vertebrates	2007
<b>Dr Erica Watson</b> University of Cambridge	Mechanisms of folate metabolism during the trans-generational inheritance of disease	2015
<b>Professor Steven West</b> University of Exeter	The nature, mechanism and function of RNA polymerase II modifications in health and disease	2015

## Fellowship Activities

The annual meetings at Christ's College in Cambridge are always exceptionally enjoyable events and 2016, being the 125th Anniversary of Lister, more than lived up to expectations with record attendance and a real sense of 'occasion'.

As part of the 125th celebrations the meeting started on Thursday afternoon with tea followed by a series of informative and interesting talks by ex-Fellows: Professor Geoffrey L Smith, Professor Rebecca Fitzgerald, Professor David Rice and Professor Michael Eddleston. We very much missed Thursday's keynote speaker, Professor Sir Alec Jeffreys who, at the last minute, was unable to attend as a result of a surfing accident—the audience, although disappointed, could not help but be impressed by the reason for his absence!

*Professor Sir Alex Markham visited Oxford to congratulate 2016 Research Prize winner Dr Jan Rehwinkel.*





The Guinness family has supported the Institute since its inception and it made the occasion even more memorable to have three members of that family present for the meeting and private dinner on Thursday. They were: Lord Iveagh, the Hon Rory Guinness (a current Governing Body member) and Mr Edward Guinness (a Governing Body member from 1968 to 2001).

Thursday's events concluded with a poster session, which provided current Fellows with an excellent opportunity to discuss their research and any concerns with the Institute's senior scientists. The feedback from the Fellows, both past and current, was extremely positive and we will consider repeating this session in future years.

Friday's meeting followed the usual pattern with the new Prize Fellows having their baptism of fire by giving the first talks of the day. As ever, they impressed everybody by the quality of their presentations and the underlying research. The diversity of science funded by the Lister can be clearly illustrated by the titles of the talks:

<b>Dr Cynthia Andoniadou</b>	<i>Functions of pituitary stem cells in turnover and disease</i>
<b>Dr Susana Godinho</b>	<i>Paracrine mediated cell invasion by centrosome amplification</i>
<b>Prof Muzlifah Haniffa</b>	<i>Existential revolution within human mononuclear phagocytes: a case of lost identities</i>
<b>Prof Jan Rehwinkel</b>	<i>Nucleic acid sensing by innate immune receptors</i>
<b>Prof Daniel Smith</b>	<i>Investigating the overlap between mood disorders and cardiovascular disease in UK Biobank</i>
<b>Dr Steven West</b>	<i>Making and breaking RNA in human cells</i>

The standard of these talks from the latest members of the 'Lister Institute family' set the benchmark for the rest of the meeting and delegates enjoyed excellent presentations from Dr Oliver Bilker (Functional analysis of a Plasmodium genome) and Professor Christopher Thompson, (Microbial game theory: multicoloured green-beards and investment games). Both gave clear and insightful talks demonstrating the importance of fundamental research in identifying the potential causes and treatment of disease.

The 2016 Special Lister institute Lecture (Throwing some light on our genome)



Professor Muzlifah Haniffa (*front row, third from left*) with her research colleagues on the occasion of the visit to Newcastle University by Professor Sir Alex Markham and the Director, Kate Law (*both top right*)

was given by Professor Wendy Bickmore, Director of the MRC Human Genetics Unit in Edinburgh. Professor Bickmore was a Lister Fellow between 1991 and 1996 when she became fascinated by the structure and organization of chromosomes in the nucleus and went on to show that different human chromosomes have preferred positions in the nucleus, related to their gene content. She described how, despite its immense length, the linear sequence map of the human genome is an incomplete description of our genetic information. This is because information on genome function and gene regulation is also encoded in the way that the DNA sequence is folded up with proteins within chromosomes and within the nucleus. Her team's work, using a multi-disciplinary approach, tries to understand the three-dimensional folding of the genome, how this controls how our genome functions in normal development and how this may be perturbed in disease.

In accordance with tradition, delegates convened for pre-dinner drinks on the Christ's lawn with, to mark the 125th anniversary, Guinness generously provided by the Hon Rory Guinness—even the drizzle couldn't dampen the mood! The usual excellent dinner followed, with the new Prize Fellows presented with their scrolls and welcomed into the 'Lister family'.

## Conclusion

It was a pleasure and a privilege to be 'at the helm' for the 125th anniversary of the Lister Institute. The two-day meeting in Cambridge was a huge success with the additional meeting on Thursday allowing plenty of time for old and new friends and colleagues the chance to catch up on news in an informal setting. The anniversary publication, while in no way competing with the Lesley Collier book on the Lister, offers a colourful and interesting update on the history and achievements of the Institute.

As ever, one of the highlights of the year for me has been listening to the Prize Fellows giving seminars in their own departments, hearing how the award has helped them develop their research groups and talking to other members of their departments about the research environment and funding issues. To all of those Fellows and their host institutions, Kate Law and I would like to express our thanks for their hospitality and ongoing support of the Fellows.

It is clear that the flexibility which the Fellowship gives to young group leaders to bridge positions, bring in particular expertise or obtain essential items of equipment can often be a lifeline for their laboratory whilst they battle for ever more competitive and restrictive grant funding from other agencies. We will, in future, be monitoring the impact of BREXIT on the Fellowships and on the university sector in general.

The strength of the Institute lies in the people associated with it, whether they be Trustees, Members of the Governing Body and its sub-committees, the Membership, our Fellows or the staff. To all I offer my sincere thanks.

ALEX MARKHAM  
Chairman

Prof Sir Alex Markham (*right*) with Prof Doug Higgs (*centre*) and Prof Jan Rehwinkel by the Isis at Oxford





# The 2016 Annual Fellows' Meeting at Christ's College, Cambridge



*Above:* The Hon. Rory Guinness serves a welcome glass to Professor Daniel Smith.



**Dr Madan Babu**



**Professor Darren Monckton**



**Dr Anne Straube**



**Dr Ragnhildur Karradottir**



*Left:* Lunch provided an opportunity to discuss Friday morning's talks.



*Above:* The Hon. Rory Guinness enjoys a refreshing drink with Professors Daniel Smith and David Lyons.



*Left (l-r):* 2016 Research Prize winners Dr Cynthia Andoniadou and Dr Susana Godinho receive their scrolls from Professor Sir Alex Markham at the Cambridge meeting, flanked by Professors Robin May and Jeremy Derrick.



Prof Tatjana Sauka-Spengler

Professor Muzlifah Haniffa

Mr Michael French, Treasurer

Dr Stephen Inglis



# REPORT OF THE GOVERNING BODY

for the year ended 31 December 2016

The Governing Body presents its Annual Report under the Charities Act 2011 together with the audited Financial Statements of the Charity for the year ended 31 December 2016. The Financial Statements have been prepared in accordance with the accounting policies set out in Note 1 (page 31) to the Financial Statements and comply with the Companies Act 2006, the FRS102 Charities SORP and the documents governing the constitution of the Charity.

## LEGAL AND ADMINISTRATIVE DETAILS

Legal and administrative information is set out on pages 3 and 4 of this report.

### ***Members of the Governing Body, Directors and Trustees***

The members of the Governing Body are, for the purposes of company law, Directors of the Institute and, for the purposes of charity law, Trustees of the Institute and throughout this report are collectively referred to as the Trustees. Details of the Trustees serving throughout the year, unless otherwise stated, are set out on page 3.

## STRUCTURE, GOVERNANCE AND MANAGEMENT

### ***Constitution***

The Institute is registered with the Charity Commission for England and Wales (registration number 206271). It is incorporated and registered in England and Wales under the Companies Act 2006 as a company limited by guarantee and not having a share capital (company number 34479). It is governed by its Articles of Association and has charitable status.

### ***Appointment and re-appointment of Trustees***

The Trustees are the fifteen members of the Governing Body of whom six are appointed by the members at the annual general meeting. A maximum of six further Trustees are appointed

by the Governing Body and there are currently four such appointees. One additional member is Lord Iveagh's representative, another is Professor Sir Alec Jeffreys who was appointed to life-membership, and the final member, Professor Cheryl Tickle, is the representative of the Royal Society. Trustees, other than the two nominated representatives, Professor Sir Alec Jeffreys and exceptionally those appointed by the Governing Body, generally serve for a maximum of six years and a system of planned rotation is in place. Currently two positions are deliberately being kept vacant. When considering appointment or nomination for election as Trustees, the Governing Body has regard to the specialist skills needed.

### ***Induction and training of Trustees***

New Trustees undergo induction sessions with the Chairman, Treasurer and Director during which they will gain an understanding of the Institute's structure, activities, financial position and future strategies. Prior to appointment they will attend, as 'observers', one meeting of the Governing Body. New Trustees will also be made aware of their legal obligations with regard to charity and company law. In addition, new Trustees will be advised of appropriate literature and training courses.

### ***Organisation***

The Institute is governed by its Governing Body which is responsible for setting policies, authorising actions on all significant operational issues and ensuring legality and good practice. The Governing Body meets formally twice a year.

Specific authorities are delegated to two sub-Committees in particular areas. The Scientific Advisory Committee (see page 4 for membership) has responsibility for the selection of the Lister Institute Prize Fellows and the monitoring of their scientific activities, as well as providing scientific and medical advice to the Governing

Body as required. In 2015 the peer review processes of the SAC were audited by the Association of Medical Research Charities and found to be meeting the highest standards. The Finance and Investment Committee (see page 4 for membership) has responsibility for interaction with the Institute's investment advisors, ensuring implementation of the Institute's investment policy and monitoring performance. It prepares and submits to the Governing Body the annual budget, and subsequently monitors performance against it. It also advises the Governing Body, as required, on other financial and risk matters.

The routine management of the Institute's activities is undertaken by its Director, aided by the Administrator and the Accountant. All staff work from home.

In the year ending 2016 none of the Charity's Trustees have received any remuneration or any other benefits in relation to their dealings with the Charity.

The Chairman and the Treasurer of the Charity agree the Director's remuneration that, along with other Lister Institute staff, is normally increased in line with RPI. Salaries are also compared to similar organisations and adjusted where appropriate. In 2016, the Director, instead of an increase based on RPI, received a bonus payment in recognition of the additional workload associated with the 125th anniversary activities.

### **Risk Management**

The Trustees assess the risks facing the Institute and review the effectiveness of the controls to monitor and mitigate them. A Risk Management Register is maintained and formally reviewed annually by the Governing Body. The key controls used by the Institute include:

- Formal agendas for all Governing Body meetings
- Strategic planning, budgeting and management accounting

- Formal written policies
- Clear authorisation and approval levels
- Regular review of Fellows' scientific reports

The specific risk of bribery associated with any of the Institute's activities has been reviewed, and clear policies and procedures have been developed and communicated to all Trustees, staff and Members.

The specific risk of scientific misconduct by Lister Fellows has been reviewed by the Trustees and, as a result, minor amendments have been made to the risk log.

The Institute maintains a 'Register of Interests' for all Governing Body and committee members as well as principal staff and operates a clear 'declaration of interests' policy and procedures for all meetings.

The principal risk facing the Institute lies in its ability to maintain and protect the value in real terms of its investments and to generate from them, on a long-term basis, a consistently high overall return. This risk is mitigated by the Institute's appointment of experienced investment managers with a proven track record; by internal controls that allow close and regular monitoring of their performance against benchmarks; by the Institute's requirement of its investment managers to re-tender periodically and competitively for appointment—the last review was in October 2012 and the next is planned for 2017, and by regular meetings that formally review investment performance and policy, and include one-to-one presentations by the investment managers.

Investment Policy Statements are in place for the Lister Institute and its investment partners. These are reviewed on an annual basis.

### **Objectives and activities**

The statutory Object of the Institute is to further understanding and progress in preventive medicine by promoting excellence in biomedical research in the UK.

When founded in 1891, the Institute sought

to achieve this objective by establishing a research institute specialising in the area of 'infections' and their prevention by immunisation and other means. It complemented these research activities by the production and supply of materials such as vaccines and anti-toxins.

The Institute continued in this mode until the late 1970s when increasing financial and regulatory pressures caused the cessation of these activities. Proceeds from the resultant sale of land and buildings created the investment funds from which present-day activities are financed; at 31 December 2016 these funds stood at £41.49m.

From the 1980s the Institute has pursued its objective by the provision of grant funding to facilitate the research and careers of high quality individuals working in areas of biomedicine relevant to preventive medicine. It has done this because it believes that the acquisition and advancement of knowledge is crucial to the understanding of health and disease and that research to achieve this is driven forward by high quality individuals and their supporting staff.

### ***Principal activities***

In pursuance of this objective, during 2016 the Institute awarded five new Prize Fellowships. In addition, the Institute has continued its Summer Studentship scheme that enables up to twenty-five undergraduates per year to work with Lister Institute Fellows or former Fellows in order to gain experience of biomedical research with the hope that they might consider it as a career.

### ***Achievement and Performance***

The Scientific Advisory Committee has monitored the performance of the current 20 Lister Institute Prize Fellows, through detailed review of the annual reports on their research that include details of all publications and presentations. The Scientific Advisory Committee has reported to Trustees that it is of the view that all

Fellows are undertaking high quality research and producing new knowledge that will contribute significantly to our understanding of disease, its causes, treatment and prevention. The reports of the research undertaken by the Summer Students have also been reviewed and found to be very satisfactory.

Five Lister Institute Prize Fellowships were awarded in 2016 to Drs Cynthia Andoniadou, Susana Godinho, Muzlifah Haniffa, Jan Rehwinkel and Daniel Smith, from an initial field of 99 applicants, following extensive scientific review of their applications and final interview by the Scientific Advisory Committee. (More details of the Prize Fellows and their research are provided on page 10). Each Prize Fellowship provides £200k that may be spent over five years on the recipient's research, although the funds are provided to the host institution at the commencement of the award.

Twenty-five Summer Studentships were awarded in 2015. Each is a £2k student bursary and is paid to the host institution at the commencement of the award for the support of the student for up to a ten-week period.

The Institute maintained its commitment to fostering scientific interchange and collaboration within the Fellowship by holding its 32nd Annual Research Fellowship meeting at Christ's College, Cambridge. This meeting was also used to celebrate the 125th anniversary of the Lister Institute.

### ***Public Benefit***

In so far as the statutory objectives, aims and activities of the Lister Institute of Preventive Medicine are to further understanding in preventive medicine by promoting biomedical research as set out on page 21 of this Report, the Trustees have considered the Charity Commission's guidance on public benefit, including the guidance 'Public benefit: running a charity (PB2)'.

The public benefit of the Institute's grant-making is clearly identifiable in the 'Achieve-



ment and Performance' paragraphs above and in the list of Research Prize Fellows, together with their areas of research, on pages 10 to 13 of the Chairman's report. All Lister Institute Fellows are actively encouraged, where appropriate, to develop their research findings for potential public benefit and the Scientific Advisory Committee has regard to this when reviewing their research reports. The Lister Institute therefore benefits the public or a sector of it without imposing any restrictions. Applications from individuals are accepted only when demonstrably consistent with the charitable objectives of the Institute.

### **Impact**

The impact of the activities of a medical research charity can be measured at many levels ranging from the growth of knowledge to direct patient/public benefit.

Often the transition from the former to the latter may take many years and the involvement of several organisations. The Institute requires that the results of the research it supports are published and disseminated; that, where appropriate, significant intellectual property is protected via patents; and that its commercial development is encouraged. Several biotechnology companies have been formed around the findings of Institute-sponsored research and there are several interactions with large pharmaceutical companies.

A prime example of the impact of research is DNA fingerprinting, which was discovered by Sir Alec Jeffreys when a Lister Institute Fellow and has become an integral part of society, helping to prove innocence or guilt in criminal cases, resolving immigration arguments and clarifying paternity.

In 2016 the Lister Institute benefitted from a share in the commercialisation of research it funded many years ago, via sales of shares in a spin-out company, TauRX, established by Professor Claude Wischik, a former Fellow (see page 8).

### **Investment policy and performance**

The Institute's investment objective is to develop and maintain its financial resources through the selection of investments, consistent with an acceptable level of risk.

The Institute's investment portfolio is split between Cazenove Capital Management and Partners Capital LLP who both operate under mandates agreed in advance with the Finance and Investment Committee. These mandates set out an overall target asset allocation with allowable ranges for each category of asset.

Both investment managers invest on a total returns basis through a variety of pooled funds and in accordance with the Institute's overarching 'Investment Policy Statement' (IPS), which states the overall investment objective and sets the investment return objectives, the risk parameters, the performance measures and review procedures for the portfolio. The Institute's IPS was revised in the autumn of 2013 and again in 2015, as a result of the establishment of the liquidity reserve. Specific versions were also agreed for each of the investment managers to reflect their individual investment approaches. The IPSs are reviewed annually. The investment managers are informed at the beginning of the financial year of the Institute's likely cash requirements, both in terms of the amount and the timing of any draw-down, and are asked to keep in an income or cash account sufficient funds to meet them. The Institute has in place an ethical investment policy which does not permit direct investment in tobacco or tobacco-related companies.

The Institute's overall financial return objective is to preserve and if possible enhance the purchasing power of its portfolio assets, net of costs and approved withdrawals, over rolling three-year periods. This goal is synonymous with the pursuit of a time-weighted net return on portfolio assets that equals and if possible exceeds cost inflation as measured by the UK Consumer Price Index plus the Institute's long-

term spending rate of 3-4% measured over corresponding three-year periods. This goal has been achieved over the most recent three-year period.

The performance of the investment portfolio is reviewed by the Finance and Investment Committee, which had two meetings in the year with the investment advisors to review performance, liquidity within the portfolio, and the due diligence undertaken on potential new investment vehicles. In addition the Institute receives detailed quarterly valuation and transaction reports. In a year that saw moderate stock market growth the fund has risen from £38.57m to £41.49m. A decision, taken in 2015, to withdraw and place £5m in a Liquidity Account was based both on the recent strong growth of the portfolio but also concerns about future market volatility and performance. A further decision was taken this year to maintain £5m in this Account, on a rolling basis, to be reviewed annually. This decision will ensure that five Prize fellowships can be awarded for at least five years from 2016.

More details of the Institute's activities are set out in the Chairman's Report on pages 5 to 17.

## FINANCIAL REVIEW

### *Allocation of resources*

The Institute, which does not seek to raise funds from the public, depends primarily on investment returns to meet its pension provision payments, administrative expenditure and expenditure in furtherance of the Charity's objectives. The total return on investments for the year was realised/unrealised gains of £3.633m and investment income of £686k.

The resources expended totalled £1.291m of which £1.060m were resources expended for the Institute's charitable activities.

The Prize Fellowships are fixed sum awards and therefore, expenditure can be regulated by altering the number and/or value of prizes

awarded each year. In 2016, due to the substantial increase in the value of the investment portfolio and good returns, the Trustees felt able to, once again, award five Prizes and to maintain their value at £200k each. The Summer Studentship scheme at a total cost of £50k can be reviewed each year with regard to both number and value. Twenty-five were funded this year. As previously described, a £5m portfolio has been established to ensure that the number and level of awards is sustainable over a minimum of five years.

Payments are currently made to five pensioners who are previous employees of the Lister Institute.

### *Reserves policy*

The policy of the Trustees is to maintain adequate financial resources to provide income to meet current and future commitments as they fall due and ensure that adequate funds remain available to enable them to make awards in perpetuity.

The adequacy of the level of reserves (£41.49m in 2016) and the continuing appropriateness of the policy are reviewed on an annual basis by the Trustees. As the current level of investments now exceeds that of 2015, they feel satisfied with the policy over the long-term and, given that the Institute is not formally committed to awarding any Prizes beyond the current year, are confident in the ability of the Institute to maintain appropriate levels of activity in the short-term.

### *Plans for the future*

The Institute's future policy is to continue to pursue its current objectives. It will therefore maintain the Prize Fellowship scheme, which it sees as a funding priority. The Summer Studentship scheme will also be maintained together with the opportunity for schools to receive talks from the Institute's Fellowship on science and biomedical subjects as part of an 'outreach' programme.

**Trustee Responsibilities Statement**

The Trustees (who are also directors of The Lister Institute of Preventive Medicine 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 SORP;
- make judgments and estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; 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 proper 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.

In so far 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.

By Order of the Governing Body

SIR ALEX F MARKHAM	MR MICHAEL FRENCH
Chairman	Treasurer

28 April 2017

# INDEPENDENT AUDITOR'S REPORT

to the members of the Lister Institute of Preventive Medicine

We have audited the financial statements of The Lister Institute of Preventive Medicine for the year ended 31 December 2016 which comprise the Statement of Financial Activities, the Balance Sheet, the Cash Flow Statement and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice) including FRS102: 'The Financial Reporting Standard Applicable in the UK and Ireland'.

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 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 any party other than the charitable company and, charitable company's members as a body, for our audit work, for this report, or for the opinions we have formed.

## **Respective responsibilities of Trustees and Auditor**

As explained more fully in the Trustees' Responsibilities Statement, the Trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

## **Scope of the audit of the financial statements**

An audit involves obtaining evidence about

the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material mis-statement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the charitable company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Trustees; and the overall presentation of the financial statements. In addition we read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements, and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material mis-statements or inconsistencies we consider the implications for our report.

## **Opinion on financial statements**

In our opinion, the financial statements:

- give a true and fair view of the state of the charitable company's affairs as at 31 December 2016 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

## **Opinion on other matters prescribed by the Companies Act 2006**

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

- the information given in the Trustees' Annual Report for the financial year for which the financial statements are prepared is consistent

- with the financial statements; and
- the Trustees' Annual 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 mis-statements in the Trustees' Annual 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; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of Trustees' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit; or
- the Trustees were not entitled to prepare the financial statements in accordance with the small companies regime and take advantage of the small companies exemption in preparing the Trustees' Annual Report and from preparing a Strategic Report.

Nicholas Brooks (Senior Statutory Auditor)  
for and on behalf of Kingston Smith LLP,  
*Statutory Auditor*

Devonshire House  
60 Goswell Road  
London  
EC1M 7AD

28 April 2017

# STATEMENT OF FINANCIAL ACTIVITIES

for the year ended 31 December 2016

	Notes	2016	2015
		£'000	£'000
<b>Income from</b>			
Investments	2	686	730
Other	3	103	9
<b>Total income</b>		<b>789</b>	<b>739</b>
<b>Expenditure on</b>			
Costs of raising funds:			
Investment management costs	4	(231)	(238)
Charitable Activities:			
Prizes & Summer Studentships	6	(1,060)	(1,224)
<b>Total expenditure</b>		<b>(1,291)</b>	<b>(1,462)</b>
Net gains on investment	9	3,633	920
<b>Net income</b>		<b>3,131</b>	<b>197</b>
Other recognised gains/(losses) :			
Actuarial losses on defined benefit schemes	13	(9)	(11)
Net movement in funds		3,122	186
Reconciliation of funds:			
Total funds brought forward		38,524	38,338
<b>Total funds carried forward</b>		<b>41,646</b>	<b>38,524</b>
<p>All items in the above Statement of Financial Activities relate to continuing operations for both years. The Institute has no other recognised gains and losses other than as stated above and hence no separate income and expenditure statement has been shown.</p>			
<p>The Notes set out on pages 31 to 38 form part of these financial statements.</p>			

# BALANCE SHEET

as at 31 December 2016

Company no. 34479

	Notes	2016 £'000	2015 £'000
<i>Fixed assets</i>			
Investments	9	41,492	38,568
<b>Total fixed assets</b>		<b>41,492</b>	<b>38,568</b>
<i>Current assets</i>			
Debtors	10	193	10
Cash at bank and in hand	11	193	155
<b>Total current assets</b>		<b>386</b>	<b>165</b>
<i>Current liabilities</i>			
Creditors: amounts falling due within one year	12	(64)	(32)
<b>Net current assets</b>		<b>322</b>	<b>133</b>
<b>Total assets less current liabilities</b>		<b>41,814</b>	<b>38,701</b>
Creditors: amounts falling due after more than one year			
Pension provision	13	(168)	(177)
<b>Net assets</b>		<b>41,646</b>	<b>38,524</b>
<i>Represented by</i>			
Restricted funds		-	-
Unrestricted funds	14	41,646	38,524
<b>Total charity funds</b>		<b>41,646</b>	<b>38,524</b>

The Trustees have taken advantage of the exemptions conferred by the Companies Act 2006, on the grounds that the Institute is entitled to the benefit of those exemptions as a small company.

These financial statements were approved by the Governing Body on 28 April 2017.

ALEX F MARKHAM | Members of the  
MICHAEL FRENCH | Governing Body

The Notes set out on pages 31 to 38 form part of these financial statements.

# CASH FLOW STATEMENT

as at 31 December 2016

	2016	2015
	£'000	£'000
<b><i>Cash flow/(outflow) from operating activities</i></b>		
Net cash (used in)/provided by operating activities	(1,348)	(1,653)
<b><i>Cash flows from investing activities</i></b>		
Investment income	686	730
Interest paid	(9)	(11)
Proceeds from disposal of fixed asset investments excluding endowment funds	7,165	14,534
Acquisition of fixed asset investments excluding endowment funds	(6,154)	(17,556)
Other movements on investments	(302)	2,670
	38	(1,286)
Net increase/(decrease) in cash and cash equivalents	38	(1,286)
Cash and cash equivalents at beginning of year	155	1,441
<b>Cash and cash equivalents at end of year</b>	<b>193</b>	<b>155</b>
	2016	2015
	£'000	£'000
<b><i>Reconciliation of net income/(expenditure) to net cash flow from operating activities</i></b>		
<b>Net income</b>	<b>3,131</b>	<b>197</b>
<b><i>Adjustments for:</i></b>		
Net (gains)/losses on investments	(3,633)	(920)
Investment income	(686)	(730)
(Increase)/decrease in debtors	(183)	38
Increase/(decrease) in creditors	32	(231)
(Decrease)/increase in pensions	(9)	(7)
<b>Net cash (used in)/provided by operating activities</b>	<b>(1,348)</b>	<b>(1,653)</b>
The Notes set out on pages 31 to 38 form part of these financial statements.		



# NOTES TO THE FINANCIAL STATEMENTS

for the year ended 31 December 2016

## 1 PRINCIPAL ACCOUNTING POLICIES

### ***Basis of preparation***

The Financial Statements have been prepared in accordance with the Statement of Recommended Practice, Accounting and Reporting by Charities (FRS102 SORP). The Financial Statements are prepared in accordance with the historical cost convention modified by the revaluation of investments. The charity is a Public Benefit Entity as defined by FRS102.

The principal accounting policies adopted in the preparation of the Financial Statements are as follows:

### ***Income***

All incoming resources are accounted for on a receivable basis.

### ***Prizes and summer studentships***

The cost of Research Prize Fellowships is charged in the year awarded.

### ***Expenditure***

The costs of raising funds include those fees payable to the Institute's investment fund managers for the management of the Institute's investment portfolio. These are accounted for on an accruals basis.

Charitable activities comprise all expenditure directly relating to the objects of the charity and are accounted for on an accruals basis. The allocation of expenditure between governance and management, administration and support costs is reviewed on an annual basis to ensure the allocation is appropriate. Indirect costs are generally treated as falling into the latter category with the exception of a proportion of salary and related costs, which have been classified as governance costs.

In addition to auditor's remuneration, governance costs comprise the proportion of staff costs associated with the time spent on the preparation of the statutory accounts and other governance issues, together with honoraria remuneration provided to members of the Institute's Scientific Advisory Committee for their duties in selecting the Prize Fellows.

### ***Supplementary pensions and staff pensions***

An estimate of the full provision is made in the Financial Statements for the costs of future supplementary payments. The provision and charge to income are reviewed annually by the Trustees in the knowledge that the number of persons receiving the supplementary pensions will not increase. The pension costs are assessed in accordance with actuarial advice and these costs are accounted for in accordance with FRS102 SORP.

Existing employees participate in a defined contribution scheme, the costs of which are expensed as incurred. These disclosures are made in accordance with FRS102 SORP.

### ***Investments***

Investments are shown at market value in the balance sheet. Changes in the market value are included in the Statement of Financial Activities as realised and unrealised investment gains or losses in the year in which they arise. Investments denominated in foreign currencies are valued at year-end rates of exchange.

### ***Cash flow statement***

The Charity has included a cash flow statement in accordance with FRS102 SORP.

*Note 1 continues overleaf*

## 1 PRINCIPAL ACCOUNTING POLICIES continued

### **Taxation**

The organisation is a registered charity and has obtained exemptions from taxation under Part 11, Chapter 3 of the Corporation Tax Act 2010. This exemption will remain as long as income is compatible with that section and expenditure is applied to charitable purposes only.

### **Critical accounting estimates and areas of judgement**

In preparing financial statements it is necessary to make certain judgements, estimates and assumptions that affect the amounts recognised in the financial statements. The Trustees consider the estimates involved in the valuation of investments to have most significant effect on amounts recognised in the financial statements. These are taken directly from Investment Managers' reports.

In addition the company has an obligation to pay pension benefits to certain employees. The cost of these benefits and the present value of the obligation depend on a number of factors including: life expectancy, salary increases, asset valuations and the discount rate on corporate bonds. Management estimates these factors in determining the net pension obligation in the balance sheet. The assumptions reflect historical experience and current trends. See Note 13 for the disclosures relating to the defined benefit pension scheme.

### **Going Concern**

The Trustees have assessed whether the use of the going concern basis is appropriate and have considered possible events or conditions that might cast significant doubt on the ability of the charity to continue as a going concern. The Trustees have made this assessment for a period of at least one year from the date of approval of the financial statements. After making enquiries, the Trustees have concluded that there are no material uncertainties that cast significant doubt on the charity's ability to continue as a going concern. The charity therefore continues to adopt the going concern basis in preparing its financial statements.

### **Financial instruments**

The company has elected to apply the provisions of Section 11 'Basic Financial Instruments' and Section 12 'Other Financial Instruments Issues' of FRS102 to all of its financial instruments. Financial instruments are recognised in the company's balance sheet when the company 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.

With the exceptions of prepayments and deferred income all other debtor and creditor balances are considered to be basic financial instruments under FRS 102. See Notes 10 and 12 for the debtor and creditor notes.

### **Fund accounting**

Restricted funds are funds available subject to specific restrictions imposed by donors. Unrestricted funds are available for use at the discretion of the Trustees in furtherance of the general objectives of the Foundation.

**2 INVESTMENT INCOME**

	2016	2015
	£'000	£'000
Income from fixed asset investments	686	726
Bank interest receivable	-	4
	<b>686</b>	<b>730</b>

**3 OTHER INCOME**

	2016	2015
	£'000	£'000
Royalty income	94	9
Donations	9	-
	<b>103</b>	<b>9</b>

Royalty income is earned from Cancer Research Technology as a result of Revenue sharing related to Mammalian Cell research studies £9k (2015: £9k) and MRC from sale of shares in TauRX £85k (2015: nil).

Donations were received in the year from The Wellcome Foundation £8k (2015:nil) and The Launchtillly Charitable Foundation £1k (2015: nil) the use of which was restricted to supporting the costs of the 125th anniversary event in Cambridge, (Note 14).

Immaterial restricted income, as noted above, is not shown separately on the Statement of Financial Activities on page 28.

**4 INVESTMENT MANAGEMENT COSTS**

	2016	2015
	£'000	£'000
Partners Capital LLP	121	141
Cazenove Capital Management	110	97
Total investment management fees	<b>231</b>	<b>238</b>

Investment management fees referred to here are those accrued fees relating to the management of the Institute's investment portfolios in 2016.

## 5 GOVERNING BODY AND STAFF COSTS

### Emoluments of members of the Governing Body

No member of the Governing Body received any emoluments in respect of services to the Institute during the year (2015: nil). Travel expenses of £1,897 were paid relating to the claims of nine members in connection with their attendance at meetings (2015: £1,358, six members).

Members of the Governing Body who are also members of the Scientific Advisory Committee receive remuneration in relation to their services to the committee. An honorarium of £1,500 (2015: £1,500) was paid to one of the members, the remainder all received £1,000 (2015: £1,000)

### Employee information

The average number of persons employed by the Institute during the year was three (2015: four), two of whom are part-time (2015: three). All staff were employed in an administrative and support capacity. No employees earn over £60k p.a. (2015: nil).

Key management personnel include the Trustees and the Director. In 2015 the Director-designate was also included. The total employee benefits of the charity's key management personnel were £46,500 (2015: £61,880).

### Staff costs

	2016	2015
	£'000	£'000
Gross salaries	85	97
Pension contributions	3	3
Employer's national insurance	6	6
	94	106

The salary costs are allocated under governance where related to statutory accounts preparation, the balance being reported within charitable activities.

## 6 PRIZES & SUMMER STUDENTSHIPS

	2016	2015
	£'000	£'000
Prize awards	817	1,000
Summer Studentship payments	50	50
Support costs (see Note 7)	79	50
Salaries (see Note 5)	82	93
Governance costs (see Note 8)	32	31
	1,060	1,224

**7 SUPPORT COSTS**

	2016	2015
	£'000	£'000
Office expenses	12	10
Travel expenses	4	4
Professional fees	4	4
Honoraria and events	50	23
Pension costs (see Note 13)	9	9
	79	50

These costs are all considered to be costs to support resources expended on charitable activities. For 2016 Honoraria and events includes gross expenditure for the 125th anniversary in Cambridge which is partly expenditure relating to restricted funds as disclosed in Note 14. Immaterial restricted expenditure as stated above is not shown separately on the Statement of Financial Activities on page 28.

**8 GOVERNANCE COSTS**

	2016	2015
	£'000	£'000
Auditors' remuneration	11	10
Staff costs (see Note 5)	13	13
Honoraria and events	8	8
	32	31

No non-audit services were provided by the auditors during the year (2015: none). Auditor's remuneration includes irrecoverable VAT.

**9 INVESTMENTS**

Listed investments are valued at middle market quotations ruling at the year-end

	2016	2015
	£'000	£'000
Market value at beginning of year	38,568	37,296
Purchases during the year at cost	6,151	17,556
Proceeds of sales during the year	(7,162)	(14,534)
Reinvested income for the year	550	557
Movement in un-invested cash	952	(3,127)
Cash withdrawn	(1,200)	(100)
Net change in market value	3,633	920
Market value at year-end	41,492	38,568

*Note 9 continues overleaf*

**9 INVESTMENTS continued**

The portfolio's asset allocation was as follows:

	2016	2015
	£'000	£'000
<i>UK investments</i>		
Equities	8,200	6,584
Fixed interest	5,043	4,977
Other (including private equity, property, commodities, alternatives and inflation-linked bonds)	7,723	7,191
Cash	813	681
<b>Total UK investments</b>	<b>21,779</b>	<b>19,433</b>
<i>Non-UK investments</i>		
Equities	8,322	8,323
Other (including private equity, property, commodities and alternatives)	11,017	10,639
Cash	374	173
<b>Total non-UK investments</b>	<b>19,713</b>	<b>19,135</b>
<b>Total</b>	<b>41,492</b>	<b>38,568</b>

At 31 December 2016 no single shareholding exceeded 5% of the total value of investments (2015: none). Historical cost related to the closing position of 2016 was £31.1m (2015: £30.7m).

**10 DEBTORS**

	2016	2015
	£'000	£'000
Prepayments	1	1
Accrued income	9	9
Other debtors	183	-
<b>Total</b>	<b>193</b>	<b>10</b>

**11 CASH**

	2016	2015
	£'000	£'000
Cash at bank	193	155

**12 CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR**

	2016	2015
	£'000	£'000
Taxation and social security	4	4
Accruals	60	28
<b>Total creditors falling due within one year</b>	<b>64</b>	<b>32</b>

**13 PROVISION FOR LIABILITIES AND CHARGES**

This represents a provision for future supplementary pension payments, in respect of ex-employees, based on their salary and length of service. The pensions are unfunded, with payments made out of the Institute's funds as they fall due.

Movements in the pension provision during the year were as below:

	2016	2015
	£'000	£'000
Liability at beginning of period	177	184
Plus interest cost	9	9
Plus actuarial gains and losses	9	11
Benefits paid	(27)	(27)
<b>Liability at end of period</b>	<b>168</b>	<b>177</b>

The tables below state the FRS102 actuarial assumptions used to estimate the pension provision.

*Principal actuarial assumptions*

Valuation at 31 December 2016

	2016	2015
Rate of increase to pensions in payment	3.0%	3.0%
Rate used to discount scheme liabilities	5.0%	5.0%

The post-retirement mortality assumption uses the PCA00 base tables (year of birth) with improvements equal to medium cohort with a 1% minimum.

<b>14 RESTRICTED FUNDS</b>				
	At 01.01.16	Income	Expenditure	At 31.12.16
	£'000	£'000	£'000	£'000
Restricted Funds	-			
The Wellcome Foundation	-	8	8	-
The Lauchentilly Charitable Foundation	-	1	1	-
	-	9	9	-

These restrictive funds were in respect of 2 donations detailed in Note 3 that were specifically given as contributions towards the Lister Institute’s 125th anniversary event in Cambridge in September 2016 (2015: nil).

**15 RELATED PARTY TRANSACTIONS**

There were no related party transactions in the year (2015: none) other than disclosed.





## **ANNUAL REPORT AND FINANCIAL STATEMENTS**

for the year ended 31 December

# 2017



The Lister Institute of Preventive Medicine  
is a company limited by guarantee (England 34479)  
and a registered charity (206271)

The Institute was founded in 1891 and for the next 80 years played a vital role in the development of the laboratory aspects of preventive medicine as an independent research institute in the UK.

Financial pressures in the 1970s led to the closure of the research and production facilities and the conversion of the Lister Institute into a highly successful trust awarding prestigious Research Fellowships from 1982 which in 2003, again because of financial pressures, were revised to become Prize Fellowships.

The cover portrait of Lord Lister reproduced by courtesy of the Royal Veterinary College

# LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2017

## THE GOVERNING BODY

Professor Sir Alex Markham, DSc, FRCP, FRCPath, FMedSci, *Chairman*

Mr Michael French, BSc(Eng), FCA, *Hon Treasurer*

Professor Judith Armitage, BSc, PhD, FRS

Professor Wendy Bickmore, BA, PhD, FMedSci, FRS, FRSE

Professor Sir Adrian P Bird, CBE, FRS, FRSE

Professor Rebecca Fitzgerald, MD, FRCP, FMedSci

Hon Rory M B Guinness, BA, FCIM

Professor Douglas Higgs, MBBS, MRCPPath, DSc, FRCP, FRCPath, FRS

Mr Andrew Hutton, MA, CFA

Professor John Iredale, FRCP, FMedSci, FRSE (*appointed 8 September 2017*)

Professor Sir Alec J Jeffreys, CH, DPhil, FMedSci, FRS

Professor Patrick Maxwell, FRCP, FMedSci (*retired 8 September 2017*)

Mr Matthew Pintus, BA

Professor Cheryll A Tickle, CBE, FRSE, FMedSci, FRS (*retired 8 September 2017*)

## SENIOR MANAGEMENT

*Secretary and Director:* Ms Kate Law

### *Business Address*

PO Box 2502  
Watford  
WD18 1AE

### *Solicitors*

Macfarlanes  
20 Cursitor Street  
London EC4A 1LT

### *Bankers*

Messrs Coutts & Co  
St Martins Office  
440 Strand  
London WC2R 0QS

### *Auditor*

Kingston Smith LLP  
Devonshire House  
60 Goswell Road  
London EC1M 7AD

### *Registered Office*

Macfarlanes  
10 Norwich Street  
London EC4A 1BD

### *Investment Advisors*

Cazenove Capital Management  
12 Moorgate  
London EC2R 6DA

Partners Capital LLP  
5 Young Street  
London W8 5EH

*Website:* [www.lister-institute.org.uk](http://www.lister-institute.org.uk)

*Telephone:* 01923 801886

# LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2017

## THE SCIENTIFIC ADVISORY COMMITTEE

Professor John Iredale, FRCP, FMedSci, FRSE (*appointed Chairman 8 September 2017*)

Professor Patrick Maxwell, FRCP, FMedSci, *chairman (retired 8 September 2017)*

Dr Ian Adams, BSc, PhD

Professor Judi Allen, MPH, PhD, FRSE, FRSB, FMedSci (*appointed 8 September 2017*)

Professor Jon Cohen, FRCP, FMedSci

Professor Cyrus Cooper, OBE, MA, DM, FRCP, FFPH, FMedSci

Professor William Deakin, PhD, FRCPsych, FMedSci

Professor Annette C Dolphin, PhD, FMedSci, FRS

Professor Margaret C Frame, PhD, FRSE, FMedSci

Professor Corinne Houart, PhD

Professor Nick Lemoine, MD, PhD, FRCPath, FMedSci

Professor Catherine Nobes, BSc, PhD (*appointed 8 September 2017*)

Professor Sir Mike Owen, PhD, FRCPsych, FMedSci, FLSW (*appointed 8 September 2017*)

Professor Barry V L Potter, MA, DPhil, DSc, CSci, FRSC, FMedSci (*appointed 8 September 2017*)

Professor Fiona Powrie (*appointed 8 September 2017*)

Professor Christoph M Tang, MB, ChB, PhD, FMedSci

Professor Josef Vormoor (*appointed 8 September 2017*)

Professor Jonathan Waltho, BSc, PhD (*retired 8 September 2017*)

Professor Colin Watts, FRS, FRSE, FMedSci (*retired 8 September 2017*)

*Secretary: Ms Kate Law*

## THE FINANCE AND INVESTMENT COMMITTEE

Mr Michael French, BSc(Eng), FCA, *Chairman*

Professor Judith Armitage, BSc, PhD, FRS

Hon Rory M B Guinness, BA, FCIM

Mr Andrew Hutton, MA, CFA

Professor Sir Alex Markham, DSc, FRCP, FRCPath, FMedSci

Mr Matthew Pintus, BA

*Secretary: Ms Kate Law*

# CHAIRMAN'S ANNUAL REPORT

for the year ended 31 December 2017

**THE YEAR 2017** saw a small but continued improvement in the Institute's finances with a rise in the value of our investment portfolio to £43.58m. Continuing market uncertainty relating to BREXIT and general global instability led to a decision to maintain the secure account of £5m, set aside to ensure that the Lister Institute is able to award a minimum of five prizes each year at £200k each over a five-year period.

The Governing Body met, as usual, twice during the year, whilst the Charity's two sub-committees have overseen their areas of responsibility with their usual efficiency.

On the research front, Lister Fellows and former Fellows continue to undertake excellent research, publish high impact papers and gain academic advancement and recognition on many fronts. The Institute does, of course, appreciate that it cannot take sole credit for these achievements, since its Fellows will receive personal support and funding from many other agencies. However, on speaking to Fellows it is very clear that the flexibility which the Lister award provides, allowing them to appoint new staff, buy equipment or pursue new lines of research, is worth far more than the cash value of the award.

## Governing Body and Administrative Matters

The Governing Body met once in April and then before the start of the September Fellows' meeting in Cambridge. As ever, I remain indebted to Members for the speed with which they respond to Lister matters and the obvious thought that they give to the Institute's business, whether dealing with it electronically or at meetings.

The Institute has a long history of having a representative from the Royal Society serving as a Trustee and, in 2017, we were sorry to bid farewell to the current representative, Professor Cheryll Tickle, who has been a member of the Governing Body since 2005. Considerable thought was given to a suitable replacement for Professor Tickle with unanimous agreement that Professor Douglas Higgs, a valued member of the Governing Body and a Fellow of the Royal Society, should be invited to take over this role. I am delighted to report that Professor Higgs has graciously accepted this position, with the enthusiastic support of the Royal Society president.

Professor Patrick Maxwell, having served firstly as a member and then as chairman of the Scientific Advisory Committee, completed his term in the role and therefore also stepped down from the Governing Body. In 2018 his place will be taken over by Professor John Iredale, the new Scientific Advisory Committee chairman.

The Articles of the Lister Institute require that one elected member of the Governing Body steps down each year. I am pleased to report that Mr Michael French, our treasurer, agreed to continue in his role and, having stepped down, was duly re-elected at the AGM in September.

The Institute continues to operate smoothly thanks to a small administrative team consisting of the Director, Kate Law, the administrator, Naomi King and accountant, Jacky Wilson. My thanks go to all of them on behalf of the Trustees.

### Institute Membership

Three Fellows, having completed five years of their fellowship, were welcomed into membership of the Institute. They are: Dr David Komander, MRC Laboratory of Molecular Biology; Dr David Lyons, University of Edinburgh and Dr Akhilesh Reddy, the Francis Crick Institute.

Professor Judi Allen, University of Manchester; Professor Sir Mike Owen, Cardiff University; Professor Fiona Powrie, University of Oxford and Professor Josef Vormoor, Newcastle University – all newly appointed members of the Scientific Advisory Committee – have accepted an invitation to membership of the Institute.

### Financial Matters

During a continuing period of global instability including the lack of clarity regarding the impact of BREXIT, the Lister portfolio has once again out-performed expectations at the beginning of the year. The overall value of the portfolio has increased by just over £2m since 31st December 2016 resulting in reserves of £43.5m once the £1m had been withdrawn to pay for this year's Fellowships. Both investment managers have performed well and, as described in the 2016 Annual Report, both Cazenove and Partners Capital were re-appointed as the Institute's investment managers following a rigorous review process and consideration of alternative providers.

The continuing uncertainty in financial markets resulted in the Finance Committee approving a proposal from Partners Capital to increase the proportion of illiquid funds from 20% to 30% and this process is now in train.

The Trustees' confidence in the investment managers continuing performance led to a decision at the Governing Body meeting in September to increase the number of Fellowships in 2018 from five to six and the level of funding from £200k to £250k. This will clearly have an impact on the longevity of the low volatility portfolio (currently standing at £5m thereby ensuring that five Fellowships at £200k were secured for five years). There will be further discussions by the Trustees in 2018. A decision was also taken to increase the number of studentships each year from 25 to 35.

All expenditures are in line with the agreed 2017 budget. The Institute's operational costs remain low at £183k, with investment fees remaining steady at £289k. The Lister Institute's total expenditure for 2017 was £1.520m. It is worth mentioning that, as a result of much needed updates of the Lister Institute's information systems, there will be ongoing annual

costs to ensure compliance with data security requirements under pending EU legislation.

As always, the Lister Institute is indebted to our Treasurer, Michael French and all the members of the Finance and Investment Committee. I should like to thank them all for their diligence and oversight, which provides enormous reassurance to me, as chairman. It is pleasing to report that the auditors, Kingston Smith, raised no significant issues with respect to the accounts.

Further details on the Institute's finances can be found on page 22 and are summarised in the Statement of Financial Activities on page 27.

## Scientific Activities

With a growing number of applications, the work of the Scientific Advisory Committee in selecting Prize Fellows becomes more challenging and the Institute is indebted to its members for their dedication and enthusiasm for the task. This year we were sorry to part with the chairman of the SAC, Professor Patrick Maxwell who has, over many years, both as a member and latterly as chairman of the SAC provided exemplary leadership to the Committee. We will miss his calm authority but, equally, are delighted to welcome Professor John Iredale as the new chairman of the Committee.

As with all Institute committees, there is planned turnover in the membership. In 2017 we were sorry to lose Professor Jon Waltho, University of Sheffield and Professor Colin Watts, University of Dundee. Given the high turnover of members in 2017 and 2018, Professor Iredale, in discussions with the Director, agreed to have a single major recruitment round in 2017. Consequently, I am delighted to welcome six new SAC members: Professors Judi Allen, Kate Nobes, Mike Owen, Barry Potter, Fiona Powrie and Josef Vormoor.



Prof Judi Allen



Prof Kate Nobes



Prof Sir Mike Owen



Prof Barry Potter



Prof Fiona Powrie



Prof Josef Vormoor






In 2017 we received 96 applications, only three fewer than in 2016, and the SAC was faced with the challenging task of selecting just five Fellows from these. The process follows a standard pattern with initial screening and scoring by SAC members to arrive at a long-list. The candidates are then further evaluated with the help of comments from independent international reviewers, arriving at a short-list of eleven candidates who were then interviewed. As the selection process proceeds, the standards are very high and, coupled with the diverse fields of research represented, the task of selecting the 'winners' is extremely



difficult. It is a tribute to SAC members and their chairman that each year they identify some truly exceptional young researchers. This year was no different.

It is a pleasure to report the Fellows' continuing endorsement of the Summer Studentship scheme. The scheme enables Lister Fellows and Former Fellows to offer places to outstanding students who then have the opportunity to experience research in a first-rate laboratory and make better informed decisions about their career pathways. Given the success of the scheme, the Trustees have agreed (as I have already mentioned) to increase the number of Studentships from 25 to 35 each year.

## 2017 Lister Research Prize Fellowship Winners

<i>Prize Winner</i>	<i>Title of Research</i>
 <b>Dr Sebastian Guettler</b> The Institute of Cancer Research	Structural basis and mechanism of telomere maintenance by poly(ADP-ribosyl)ation
 <b>Dr Sophie Helaine</b> Imperial College London	Salmonella Persister formation at the single cell level
 <b>Dr Yogesh Kulathu</b> University of Dundee	Regulation and function of protein FUBylation
 <b>Dr James Nathan</b> Cambridge Institute for Medical Research	The interplay between metabolism and oxygen sensing
 <b>Dr Rahul Roychoudhuri</b> The Babraham Institute	Resolving mechanisms of gene regulation within the immune system using forward genetics

**Note:** *The academic rank of each Prize winner is shown as at the date of the award.*

## Current and Former Lister Institute Prize Fellows

<i>Fellow</i>	<i>Title of Research</i>	<i>Awarded</i>
<b>Dr Cynthia Andoniadou</b> King's College London	Regulation of stem cell potential in the mammalian pituitary gland	2016
<b>Dr M Madan Babu</b> MRC Laboratory of Molecular Biology, Cambridge	Dynamics of tRNA abundance and the regulation of protein expression levels	2014
<b>Dr Nina Balthasar</b> University of Bristol	Identifying the novel CREB coactivator TORC2's role in the hypothalamic pathways controlling energy homeostasis	2007
<b>Dr Oliver Billker</b> The Wellcome Trust Sanger Institute, Cambridge	In search of the xanthurenic acid receptor of malaria parasites – a potential target for transmission control	2004
<b>Dr Emmanuel Boucrot</b> University College, London	Mechanisms of cargo selection and vesicle formation in a novel pathway of endocytosis	2014
<b>Professor Nia Bryant</b> University of York	Using yeast as a model system to understand the insulin-dependent trafficking of GLUT4 in adipocytes	2004
<b>Dr Simon Bullock</b> MRC Laboratory of Molecular Biology, Cambridge	Mechanisms and neuronal functions of motor-driven transport	2008
<b>Professor Juan Burrone</b> Kings College London	The role of neuronal activity during synapse formation	2009
<b>Dr Vincenzo Costanzo</b> Cancer Research UK Clare Hall Laboratories	The role of ATM and ATR in preventing genomic instability	2006
<b>Professor Victoria Cowling</b> University of Dundee	Regulation and function of the 7-methylguanosine cap	2011
<b>Professor Daniel Davis</b> Imperial College, London	Nanotubes and synapses in immune cell communication	2005
<b>Professor Simon Draper</b> The Jenner Institute Oxford	Development of next-generation broadly-neutralising vaccines against the blood stage infection of human malarial	2013

<i>Fellow</i>	<i>Title of Research</i>	<i>Awarded</i>
<b>Professor Michael Eddleston</b> University of Edinburgh	Prevention of deaths from late respiratory failure in organo-phosphorus pesticide poisoning	2011
<b>Professor Sherif El-Khamisy</b> University of Sheffield	The repair of oxidative and topoisomerase induced chromosomal strand breaks and human disease	2013
<b>Professor Rebecca Fitzgerald</b> University of Cambridge	Translational research programme for prevention of oesophageal adenocarcinoma	2008
<b>Dr Agnieszka Gambus</b> University of Birmingham	Identification and characterisation of Mcm7 ubiquitin ligase	2015
<b>Dr Holger Gerhardt</b> VIB Vesalius Research Centre KU Germany	Endothelial guidance in vascular patterning	2008
<b>Dr Susana Godinho</b> Queen Mary University of London	Regulation of paracrine signalling by centrosome amplification	2016
<b>Professor Fiona Gribble</b> University of Cambridge	Secretion of incretin hormones from the mouse intestine	2006
<b>Professor Muzlifah Haniffa</b> Newcastle University	In vivo kinetics and functional response of human mononuclear phagocytes during acute tissue inflammation	2016
<b>Professor Andrew Jackson</b> University of Edinburgh	Cellular pathways determining human brain size	2009
<b>Dr Ragnhildur Karadottir</b> Wellcome Trust-MRC Cambridge Stem Cell Institute	The role of neuronal activity in myelin repair	2015
<b>Professor Josef Kittler</b> University College London	Miro family proteins as regulators of synaptic bioenergetics and a locus for mitochondrial dysfunction in neurological disease	2010
<b>Professor Robert Klose</b> University of Oxford	Biochemical isolation and functional dissection of the CpG island proteome	2011
<b>Dr David Komander</b> MRC Laboratory of Molecular Biology, Cambridge	Bacterial interference with the ubiquitin system	2012

<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Professor Paul Lehner</b> University of Cambridge	The role of HSP70 in MHC Class 1 mediated antigen presentation in human dendritic cells	2004
<b>Professor David Lyons</b> University of Edinburgh	Elucidating mechanisms of myelinated axon formation, function and repair using zebrafish	2012
<b>Professor Juan Martin-Serrano</b> King's College London	Functional parallels between HIV-1 budding and the last step of cell division	2008
<b>Professor Robin May</b> University of Birmingham	The molecular basis of latency and dissemination during cryptococcosis	2010
<b>Dr Serge Mostowy</b> Imperial College London	Bacterial autophagy and the cytoskeleton in host defence	2015
<b>Dr Akhilesh Reddy</b> University of Cambridge	Peroxiredoxins and redox oscillations in the circadian (24 hour) clockwork	2012
<b>Professor Jan Rehwinkel</b> University of Oxford	Z-RNA and Z-DNA: Novel inducers of antiviral immunity	2016
<b>Professor Tatjana Sauka-Spengler</b> Weatherall Institute of Molecular Medicine, Oxford	Decoding gene regulatory circuits controlling multipotency of neural crest	2013
<b>Dr Melina Schuh</b> Max Planck Institute for Biophysical Chemistry, Germany	Mechanisms of aneuploidy in human oocytes	2014
<b>Professor Daniel Smith</b> University of Glasgow	Investigating the overlap between hypertension and bipolar disorder to identify new and repurposed medications for bipolar disorder	2016
<b>Professor Kenneth Smith</b> University of Cambridge	Control of infection and autoimmunity by an inhibitory Fc receptor FcγR11b	2007
<b>Professor Grant Stewart</b> University of Birmingham	Investigating the role of the RIDDLE syndrome gene in promoting repair of DNA damage	2009
<b>Dr Anne Straube</b> University of Warwick	Microtubule-actin crosstalk in cell migration	2013
<b>Professor Tomoyuki Tanaka</b> University of Dundee	Mechanisms of kinetochore-microtubule interaction	2005

*Continued overleaf*

<i>Fellow</i>	<i>Title of Research</i>	<i>Awarded</i>
<b>Dr Sarah Teichmann</b> The Wellcome Trust Sanger Institute and EMBL-EBI, Cambridge	Decoding genetic switches in T helper cell differentiation	2010
<b>Professor Chris Thompson</b> University of Manchester	Identifying and characterising genes that control cell fate choice and social behaviour	2005
<b>Professor Daan van Aalten</b> University of Dundee	Structural mechanisms and specificity of O-GlcNAc signalling in the eukaryotic cell	2006
<b>Dr Fiona Wardle</b> Kings College London	Transcriptional control of mesodermal cell differentiation in vertebrates	2007
<b>Dr Erica Watson</b> University of Cambridge	Mechanisms of folate metabolism during the trans- generational inheritance of disease	2015
<b>Professor Steven West</b> University of Exeter	The nature, mechanism and function of RNA polymerase II modifications in health and disease	2015

## Fellowship Activities

The annual meeting in the beautiful setting of Christ's College, Cambridge was the usual success, although made slightly poignant by being the last meeting in Cambridge for the foreseeable future.

Positive feedback on the extended meeting held over two days in 2016 (celebrating the 125th anniversary of the Institute) encouraged the Trustees to endorse a similar meeting this year. We began on Thursday afternoon with excellent and informative talks by Professor Sir Alec Jeffreys (having fully recovered from the surfing accident that prevented him from speaking in 2016!), Professors Cheryll Tickle and Stephen Inglis (both previous members of the Institute's Governing Body) and Professor Muzlifa Haniffa, a current Lister Fellow. The delegates then moved on to a more informal setting for the poster session which, once again, provided current Fellows with an excellent opportunity to discuss their research and any concerns they may have with senior members of the Institute.

Friday's meeting provided, as ever, a series of outstanding presentations across a diverse range of topics. The morning was, as usual, taken up by excellent talks from four of the five winners of the 2017 Prize Fellowships listed on page 8, aptly illustrating the diversity of scientific research funded by the Institute.

- Dr Sebastian Guettler**  
The Institute of Cancer  
Research  
*Structural basis and mechanism of telomere maintenance by poly(ADP-ribosyl)ation*
- Dr Sophie Helaine**  
Imperial College London  
*Salmonella Persister formation at the single cell level*
- Dr James Nathan**  
Cambridge Institute for  
Medical Research  
*The interplay between metabolism and oxygen sensing*
- Dr Rahul Roychoudhuri**  
The Babraham Institute  
*Resolving mechanisms of gene regulation within the immune system using forward genetics*

The quality of these talks from the most recent members of the 'Lister Institute family' set the standard for the rest of the meeting and in the afternoon former Fellows showed that they had been far from idle since winning their Fellowships! Delegates enjoyed excellent presentations from Dawn Coverley, (*CIZ1 and the inactive X chromosome*), Paul Lehner, (*Silencing incoming lentiviruses – identification of HUSH, a novel epigenetic repressor complex*) and Jon Waltho, (*Kinases, phosphatases, phosphomutases and G-proteins*).

Delegates at the Cambridge Fellowship Meeting awaiting the lecture given by Professor Sir Alec Jeffreys





## Chairman's Report

The 2017 Special Lister Institute Lecture was given by Professor Sir Leszek Borysiewicz who was one of the first Lister Institute Fellows between 1983 and 1987. Professor Borysiewicz's talk entitled: *From micro to macro; challenge and opportunity* provided a compelling insight into a varied and stellar career in science and national research leadership. Professor Borysiewicz explained how his initial focus, supported by the Lister fellowship, had been on the immunity to persistent virus infections in relation to HIV and Human Cytomegalovirus, leading to the identification and development of immunotherapeutic vaccine-based approaches to human cervical cancer targeting human papillomavirus E6 and E7 proteins. That effort led him to consider the wider, strategic question, of how best to develop opportunities to deliver effective treatment through basic and clinically applied translational research and better delivery of healthcare. This strategic focus resulted in leadership of several major institutions including CEO of the Medical Research Council, vice-chancellor of the University of Cambridge and, most recently, as chairman of Cancer Research UK.

Whilst the topics varied widely throughout the day, the depth of knowledge and enthusiasm of the speakers was a constant, confirming the outstanding quality of the individuals awarded Lister Prize Fellowships.

The reception and dinner were the usual lively and enjoyable occasions and, following presentation of scrolls, four of the five new Prize Fellows were welcomed into the 'Lister Institute family' in traditional style. A fitting end to our time in Cambridge!

*Right: (l-r) Professor Corinne Houart, Dr Cynthia Adoniadou and Professor Wendy Bickmore*



*Left: An appreciative embrace from Professor Sir Alec Jeffreys at the Fellowship Meeting for Naomi King, the long-serving Lister administrator.*

## Conclusion

As always, the meeting in Cambridge was a huge success, not only providing the opportunity to gain insight into the high-quality research of those who gave presentations but also the opportunity for Fellows and Members to speak informally about science and careers. We know from speaking to the current Fellows how much they value the opportunity to mix with their senior colleagues and discuss their research and the general challenges of academia.

One of the most enjoyable roles of the chairman is travelling to institutions to hear the Prize Fellows give seminars in their home environment. All these events are unique, reflecting both the character and research of the speaker and that of their departments, each with their differing aspirations and local capabilities. Common to all, however, is the high regard in which Lister Fellows are held by their colleagues and the undoubted impact which the receipt of the Prize has had on their research. It is also pleasing to hear that the Lister prize almost always results in additional support, either in terms of facilities or funding from the host institution. I should like to express my own and the Institute's thanks to the host institutions that have welcomed us throughout the year. By working with these organisations, it is very clear to me that the Lister Institute is fulfilling its stated aim of 'nurturing the future leaders in biomedical research'.

At this point I must thank Patrick Maxwell for his chairmanship of the Scientific Advisory Committee over the past six years. Aply supported by the SAC members, Patrick's leadership has ensured that the very best individuals have been selected for the Lister Prizes. My thanks also go to Professor John Iredale who has kindly agreed to take on the role of SAC chairman. I must also thank all of my colleagues on the Governing Body for their hard work and support, not least for ensuring that we were able to fund five Fellowships this year and even discuss the potential for increasing this number in 2018.

Finally, it is a pleasure and privilege to be the chairman of the Lister Institute of Preventive Medicine. The strength of the Institute is the people associated with it, whether they be Trustees, members of the Governing Body and its sub-committees, the Membership, our Fellows or the staff, and to all I offer my sincere thanks and warmest appreciation.

We very much look forward to seeing you all at Corpus Christi, Oxford in September 2018!



Professor Sir Alex Markham congratulates Dr James Nathan following a seminar given at Cambridge on his research topic.

ALEX MARKHAM, Chairman



# More pictures from the 2017 Annual Fellows' Meeting at Christ's College Cambridge







***Inset photos, clockwise from top left:***

1. Professor Simon Kroll in conversation with Professor Judy Armitage
2. Professor Andrew Fry and Dr Anne Straube in earnest discussion.
3. Professor Ken Smith, Dr Madan Babu and Professor Paul Lehner in lively conversation
4. The Hon Rory Guinness engaging with Professor John Iredale
5. Professor Nick Lemoine has an amiable chat with Dr Muzlifah Haniffa.
6. Professors David Rice and Barry Potter share the latest news.
7. 2017 Prize Award winners Dr Sophie Helaine and Dr Rahul Roychoudhuri talk with Professor Stephen Perkins.

# REPORT OF THE GOVERNING BODY

for the year ended 31 December 2017

The Governing Body presents its Annual Report under the Charities Act 2011 together with the audited Financial Statements of the Charity for the year ended 31 December 2017. The Financial Statements have been prepared in accordance with the accounting policies set out in Note 1 (page 31) comply with the Companies Act 2006, the FRS102 Charities SORP and the documents governing the constitution of the Charity.

## LEGAL AND ADMINISTRATIVE DETAILS

Legal and administrative information is set out on pages 3 and 4 of this report.

### *Members of the Governing Body, Directors and Trustees*

The members of the Governing Body are, for the purposes of company law, directors of the Institute and, for the purposes of charity law, Trustees of the Institute and throughout this report are collectively referred to as the Trustees. Details of the Trustees serving throughout the year, unless otherwise stated, are set out on page 3.

## STRUCTURE, GOVERNANCE AND MANAGEMENT

### *Constitution*

The Institute is registered with the Charity Commission for England and Wales (registration number 206271). It is incorporated and registered in England and Wales under the Companies Act 2006 as a company limited by guarantee and not having a share capital (company number 34479). It is governed by its Articles of Association and has charitable status.

### *Appointment and re-appointment of Trustees*

The Trustees are the fifteen members of the Governing Body of whom six are appointed by the members at the annual general meeting. A maximum of six further Trustees are appointed

by the Governing Body and there are currently four such appointees. One additional member is Lord Iveagh's representative, another is Professor Sir Alec Jeffreys who was appointed to life-membership, and the final member, Professor Cheryl Tickle, is the representative of the Royal Society. Professor Tickle's term of office ended in 2017 and she has been replaced by a current Governing Body member who is also a Fellow of the Royal Society, Professor Douglas Higgs. Trustees, other than the two nominated representatives, Professor Sir Alec Jeffreys and exceptionally those appointed by the Governing Body, generally serve for a maximum of six years and a system of planned rotation is in place. Currently two positions are deliberately being kept vacant. When considering appointment or nomination for election as Trustees, the Governing Body has regard to the specialist skills needed.

### *Induction and training of Trustees*

New Trustees undergo induction sessions with the Chairman, Treasurer and Director during which they will gain an understanding of the Institute's structure, activities, financial position and future strategies. Prior to appointment they will attend, as 'observers', one meeting of the Governing Body. New Trustees will also be made aware of their legal obligations with regard to charity and company law. In addition, new Trustees will be advised of appropriate literature and training courses.

### *Organisation*

The Institute is governed by its Governing Body which is responsible for setting policies, authorising actions on all significant operational issues and ensuring legality and good practice. The Governing Body meets formally twice a year. The Treasurer and Chairman review the remuneration of all staff once a year, this includes the remuneration of those individuals considered to be key management personnel.

Specific authorities are delegated to two sub-Committees in particular areas. The Scientific Advisory Committee (see page 4 for membership) has responsibility for the selection of the Lister Institute Prize Fellows and the monitoring of their scientific activities, as well as providing scientific and medical advice to the Governing Body as required. In 2015 the peer review processes of the SAC were audited by the Association of Medical Research Charities and found to be meeting the highest standards. The Finance and Investment Committee (see page 4 for membership) has responsibility for interaction with the Institute's investment advisors, ensuring implementation of the Institute's investment policy and monitoring performance. It prepares and submits to the Governing Body the annual budget, and subsequently monitors performance against it. It also advises the Governing Body, as required, on other financial and risk matters.

The routine management of the Institute's activities is undertaken by its Director, aided by the administrator and the accountant. All staff work from home.

In the year ending 2017 none of the charity's Trustees received any remuneration or any other benefits in relation to their dealings with the charity.

The Chairman and the Treasurer of the charity agree the Director's remuneration that, along with other Lister Institute staff, is normally increased in line with RPI. Salaries are also compared to similar organisations and adjusted periodically where appropriate.

### ***Risk Management***

The Trustees assess the risks facing the Institute and review the effectiveness of the controls to monitor and mitigate them. A Risk Management Register is maintained and formally reviewed annually by the Governing Body.

The key controls used by the Institute include:

- Formal agendas for all Governing Body meetings
- Strategic planning, budgeting and management accounting
- Formal written policies
- Clear authorisation and approval levels
- Regular review of Fellows' scientific reports

The specific risk of bribery associated with any of the Institute's activities has been reviewed, and clear policies and procedures have been developed and communicated to all Trustees, staff and Members.

The specific risk of scientific misconduct by Lister Fellows has been reviewed by the Trustees and, as a result, minor amendments have been made to the risk log.

The Institute maintains a 'Register of Interests' for all Governing Body and committee members as well as principal staff and operates a clear 'declaration of interests' policy and procedures for all meetings.

The principal risk facing the Institute lies in its ability to maintain and protect the value in real terms of its investments and to generate from them, on a long-term basis, a consistently high overall return. This risk is mitigated by the Institute's appointment of experienced investment managers with a proven track record; by internal controls that allow close and regular monitoring of their performance against benchmarks; by the Institute's requirement of its investment managers to re-tender periodically and competitively for appointment – as happened in 2017, and by regular meetings that formally review investment performance and policy, and include one-to-one presentations by the investment managers.

Investment Policy Statements are in place for the Lister Institute and its investment partners. These are reviewed on an annual basis.

### **Objectives and activities**

The statutory object of the Institute is to further understanding and progress in preventive medicine by promoting excellence in biomedical research in the UK and Ireland.

When founded in 1891, the Institute sought to achieve this objective by establishing a research institute specialising in the area of 'infections' and their prevention by immunisation and other means. It complemented these research activities by the production and supply of materials such as vaccines and anti-toxins.

The Institute continued in this mode until the late 1970s when increasing financial and regulatory pressures caused the cessation of these activities. Proceeds from the resultant sale of land and buildings created the investment funds from which present-day activities are financed; at 31 December 2017 these funds stood at £43.58m.

From the 1980s the Institute has pursued its objective of nurturing future leaders by the provision of grant funding to facilitate the research and careers of high quality individuals working in areas of biomedicine relevant to preventive medicine. It has done this because it believes that the acquisition and advancement of knowledge is crucial to the understanding of health and disease and that research to achieve this is driven forward by high quality individuals and their supporting staff.

### **Principal activities**

In pursuance of this objective, during 2017 the Institute awarded five new Prize Fellowships. In addition, the Institute has continued its Summer Studentship scheme that enables up to twenty-five undergraduates per year to work with Lister Institute Fellows or former Fellows in order to gain experience of biomedical research with the hope that they might consider it as a career.

### **Achievement and Performance**

The Scientific Advisory Committee has monitored the performance of the current 26 Lister Institute Prize Fellows, through detailed review of the annual reports on their research that include details of all publications and presentations. The Scientific Advisory Committee has reported to Trustees that it is of the view that all Fellows are undertaking high quality research and producing new knowledge that will contribute significantly to our understanding of disease, its causes, treatment and prevention. The reports of the research undertaken by the Summer Students have also been reviewed and found to be very satisfactory.

Five Lister Institute Prize Fellowships were awarded in 2017 to Dr Sebastian Guettler, Dr Sophie Helaine, Dr Yogesh Kulathu, Dr James Nathan and Dr Rahul Roychoudhuri from an initial field of 96 applicants, following extensive scientific review of their applications and final interview by the Scientific Advisory Committee. (More details of the Prize Fellows and their research are provided on page 8). Each Prize Fellowship provides £200k that may be spent over five years on the recipient's research, although the funds are provided to the host institution at the commencement of the award.

Twenty-four Summer Studentships were awarded in 2017. Each is a £2k student bursary and is paid to the host institution at the commencement of the award for the support of the student for up to a ten-week period.

The Institute maintained its commitment to fostering scientific interchange and collaboration within the Fellowship by holding its 33rd Annual Research Fellowship meeting at Christ's College, Cambridge.

### **Public Benefit**

In so far as the statutory objectives, aims and activities of the Lister Institute of Preventive Medicine are to further understanding in preventive medicine by promoting biomedical research



as set out on page 20 of this Report, the Trustees have considered the Charity Commission's guidance on public benefit, including the guidance 'Public benefit: running a charity (PB2)'.

The public benefit provided through the Institute's grant-making is clearly identifiable in the 'Achievement and Performance' paragraphs above and in the list of Research Prize Fellows, together with their areas of research, set out on pages 9 to 12 of the Chairman's report. All Lister Institute Fellows are actively encouraged, where appropriate, to develop their research findings for potential public benefit and the Scientific Advisory Committee has regard to this when reviewing their research reports. The Lister Institute therefore benefits the public or a sector of it without imposing any restrictions. Applications from individuals are accepted only when demonstrably consistent with the charitable objectives of the Institute.

### **Impact**

The impact of the activities of a medical research charity can be measured at many levels ranging from the growth of knowledge to direct patient/public benefit. Often the transition from the former to the latter may take many years and the involvement of several organisations. The Institute requires that the results of the research it supports are published and disseminated; that, where appropriate, significant intellectual property is protected via patents; and that its commercial development is encouraged. Several biotechnology companies have been formed around the findings of Institute-sponsored research and there are several interactions with large pharmaceutical companies.

A prime example of the impact of research is DNA fingerprinting, which was discovered by Sir Alec Jeffreys when a Lister Institute Fellow and has become an integral part of society, helping to prove innocence or guilt in criminal cases, resolving immigration arguments and clarifying paternity.

### **Investment policy and performance**

The Institute's investment objective is to develop and maintain its financial resources through the selection of investments, consistent with an acceptable level of risk.

The Institute's investment portfolio is split between Cazenove Capital Management and Partners Capital LLP who both operate under mandates agreed in advance with the Finance and Investment Committee. These mandates set out an overall target asset allocation with allowable ranges for each category of asset.

Both investment managers invest on a total returns basis through a variety of pooled funds and in accordance with the Institute's overarching 'Investment Policy Statement' (IPS), which states the overall investment objective and sets the investment return objectives, the risk parameters, the performance measures and review procedures for the portfolio. The Institute's IPS was revised in the autumn of 2013 and again in 2015, as a result of the establishment of the liquidity reserve. Specific versions were also agreed for each of the investment managers to reflect their individual investment approaches. The IPSs are reviewed annually. The investment managers are informed at the beginning of the financial year of the Institute's likely cash requirements, both in terms of the amount and the timing of any draw-down, and are asked to keep in an income or cash account sufficient funds to meet them. The Institute has in place an ethical investment policy which does not permit direct investment in tobacco or tobacco-related companies.

The Institute's overall financial return objective is to preserve and if possible enhance the purchasing power of its portfolio assets, net of costs and approved withdrawals, over rolling five-year periods. This goal is synonymous with the pursuit of a time-weighted net return on portfolio assets that equals and if possible exceeds cost inflation as measured by the UK Consumer Price Index plus the Institute's long-

term spending rate of 3-4% measured over corresponding five-year periods. This goal has been achieved over the most recent five-year period.

The performance of the investment portfolio is reviewed by the Finance and Investment Committee, which had two meetings in the year with the investment advisors to review performance, liquidity within the portfolio, and the due diligence undertaken on potential new investment vehicles. In addition, the Institute receives detailed quarterly valuation and transaction reports. In a year that saw moderate stock market growth the fund has risen from £41.49m to £43.58m. A decision, taken in 2015, to withdraw and place £5m in a Liquidity Account was based both on the recent strong growth of the portfolio but also concerns about future market volatility and performance. A further decision was taken in 2016 to maintain £5m in this account, on a rolling basis, to be reviewed annually. This decision will ensure that five Prize fellowships can be awarded for at least five years from 2017.

More details of the Institute's activities are set out in the Chairman's Report on pages 5 to 15.

## FINANCIAL REVIEW

### *Allocation of resources*

The Institute, which does not seek to raise funds from the public, depends primarily on investment returns to meet its pension provision payments, administrative expenditure and expenditure in furtherance of the Charity's objectives. The total return on investments for the year was realised/unrealised gains of £2.632m and investment income of £714k.

The resources expended totalled £1,520m of which £1,231m were resources expended for the Institute's charitable activities.

The Prize Fellowships are fixed sum awards and therefore, expenditure can be regulated by altering the number and/or value of prizes awarded each year. In 2016, due to the substan-

tial increase in the value of the investment portfolio and good returns, the Trustees felt able to, once again, award five Prizes in 2017 and to maintain their value at £200k each. From 2018 the number of Fellowships will increase to six at £250k each. As previously described, a £5m portfolio has been established to ensure that the number and level of awards is sustainable over a minimum of five years. The Summer Studentship scheme at a total cost of £50k can be reviewed each year with regard to both number and value. Twenty-four were funded this year as one student was unable to take up the award. A decision was taken this year to increase the number of studentships to 35, effective from 2018.

Payments are currently made to five pensioners who are previous employees of the Lister Institute.

### *Reserves policy*

The policy of the Trustees is to maintain adequate financial resources to provide income to meet current and future commitments as they fall due and ensure that adequate funds remain available to enable them to make awards in perpetuity.

The adequacy of the level of reserves (£43.58m in 2017) and the continuing appropriateness of the policy are reviewed on an annual basis by the Trustees. As the current level of investments now exceeds that of 2016, they feel satisfied with the policy over the long-term and, given that the Institute is not formally committed to awarding any Prizes beyond the current year, are confident in the ability of the Institute to maintain appropriate levels of activity in the short-term.

### *Plans for the future*

The Institute's future policy is to continue to pursue its current objectives. It will therefore maintain and look to increase the Prize Fellowship scheme, which it sees as a funding priority. The Summer Studentship scheme will also be increased.

**Trustee Responsibilities Statement**

The Trustees (who are also directors of The Lister Institute of Preventive Medicine 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 SORP;
- make judgments and estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; 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 proper 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.

In so far 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.

By Order of the Governing Body

SIR ALEX F MARKHAM  
Chairman

MR MICHAEL FRENCH  
Treasurer

8 May 2018



# INDEPENDENT AUDITOR'S REPORT

to the members of the Lister Institute of Preventive Medicine

## **Opinion**

We have audited the financial statements of The Lister Institute of Preventive Medicine ('the company') for the year ended 31 December 2017 which comprise the Statement of Financial Activities, the Balance Sheet, the Cash Flow Statement and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including FRS102 'The Financial Reporting Standard Applicable in the UK and Ireland' (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the charitable company's affairs as at 31 December 2017 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

## **Basis for opinion**

We conducted our audit in accordance with International Standards on Auditing (UK) (ISA (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the audit of 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.

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 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 any party other than the charitable company and charitable company's members as a body, for our audit work, for this report, or for the opinions we have formed.

## **Conclusions relating to going concern**

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

- the Trustees' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the Trustees have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

## **Other information**

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

In connection with our audit of the financial statements, our responsibility is to read the

other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

#### ***Opinions on other matters prescribed by the Companies Act 2006***

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

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

#### ***Matters on which we are required to report by exception***

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; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of Trustees' remuneration specified by law are not made; or

- we have not received all the information and explanations we require for our audit; or
- the Trustees were not entitled to prepare the financial statements in accordance with the small companies regime and take advantage of the small companies exemption in preparing the Trustees' annual report and from preparing a Strategic Report.

#### ***Responsibilities of Trustees***

As explained more fully in the Trustees' responsibilities statement set out on page 23, the Trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

#### ***Auditor's responsibilities for the audit of the financial statements***

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

## Independent Auditor's Report

error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs (UK) we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purposes of expressing an opinion on the effectiveness of the charitable company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Trustees.
- Conclude on the appropriateness of the Trustees' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may

cast significant doubt on the charitable company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the charitable company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Luke Holt (Senior Statutory Auditor)  
for and on behalf of Kingston Smith LLP,  
*Statutory Auditor*

Devonshire House  
60 Goswell Road  
London  
EC1M 7AD  
6 June 2018

# STATEMENT OF FINANCIAL ACTIVITIES

for the year ended 31 December 2017

	Notes	2017	2016
		£'000	£'000
<b>Income from</b>			
Investments	2	714	686
Other	3	20	103
<b>Total income</b>		<b>734</b>	<b>789</b>
<b>Expenditure on</b>			
Costs of raising funds:			
Investment management costs	4	(289)	(231)
Charitable activities:			
Prizes & Summer Studentships	6	(1,231)	(1,060)
<b>Total expenditure</b>		<b>(1,520)</b>	<b>(1,291)</b>
Net gains on investment	9	2,632	3,633
<b>Net income</b>		<b>1,846</b>	<b>3,131</b>
Other recognised gains/(losses) :			
Actuarial losses on defined benefit schemes	13	(11)	(9)
Net movement in funds		1,835	3,122
Reconciliation of funds:			
Total funds brought forward		41,646	38,524
<b>Total funds carried forward</b>		<b>43,481</b>	<b>41,646</b>

All items in the above Statement of Financial Activities relate to continuing operations for both years. The Institute has no other recognised gains and losses other than as stated above and hence no separate income and expenditure statement has been shown.

The Notes set out on pages 30 to 37 form part of these financial statements.

# BALANCE SHEET

as at 31 December 2017

Company no. 34479

	Notes	2017 £'000	2016 £'000
<i>Fixed assets</i>			
Investments	9	43,583	41,492
<b>Total fixed assets</b>		<b>43,583</b>	<b>41,492</b>
<i>Current assets</i>			
Debtors	10	23	193
Cash at bank and in hand	11	133	193
<b>Total current assets</b>		<b>156</b>	<b>386</b>
<i>Current liabilities</i>			
Creditors: amounts falling due within one year	12	(98)	(64)
<b>Net current assets</b>		<b>58</b>	<b>322</b>
<b>Total assets less current liabilities</b>		<b>43,641</b>	<b>41,814</b>
<i>Creditors: amounts falling due after more than one year</i>			
Pension provision	13	(160)	(168)
<b>Net assets</b>		<b>43,481</b>	<b>41,646</b>
<i>Represented by</i>			
Unrestricted funds		43,481	41,646
<b>Total charity funds</b>		<b>43,481</b>	<b>41,646</b>
<p>The Trustees have taken advantage of the exemptions conferred by the Companies Act 2006, on the grounds that the Institute is entitled to the benefit of those exemptions as a small company.</p> <p>These financial statements were approved by the Governing Body on 8 May 2018.</p> <p style="text-align: right;">ALEX F MARKHAM   Members of the MICHAEL FRENCH   Governing Body</p> <p>The Notes set out on pages 30 to 37 form part of these financial statements.</p>			

# CASH FLOW STATEMENT

as at 31 December 2017

	2017	2016
	£'000	£'000
<b><i>Cash flow/(outflow) from operating activities</i></b>		
Net cash (used in)/provided by operating activities	(1,304)	(1,348)
<b><i>Cash flows from investing activities</i></b>		
Investment income	714	686
Interest paid	(8)	(9)
Proceeds from disposal of fixed asset investments excluding endowment funds	13,744	7,165
Acquisition of fixed asset investments excluding endowment funds	(13,719)	(6,154)
Other movements on investments	513	(302)
	(60)	38
Net (decrease)/increase in cash and cash equivalents	(60)	38
Cash and cash equivalents at beginning of year	193	155
<b>Cash and cash equivalents at end of year</b>	<b>133</b>	<b>193</b>
<b><i>Reconciliation of net income/(expenditure) to net cash flow from operating activities</i></b>		
	2017	2016
	£'000	£'000
<b>Net income</b>	<b>1,846</b>	<b>3,131</b>
<b><i>Adjustments for:</i></b>		
Net (gains)/losses on investments	(2,632)	(3,633)
Investment income	(714)	(686)
Decrease/(increase) in debtors	170	(183)
Increase/(decrease) in creditors	34	32
(Decrease)/increase in pensions	(8)	(9)
<b>Net cash (used in)/provided by operating activities</b>	<b>(1,304)</b>	<b>(1,348)</b>

# NOTES TO THE FINANCIAL STATEMENTS

for the year ended 31 December 2017

## 1 PRINCIPAL ACCOUNTING POLICIES

### ***Basis of preparation***

The Financial Statements have been prepared in accordance with the Statement of Recommended Practice, Accounting and Reporting by Charities (FRS102 SORP). The Financial Statements are prepared in accordance with the historical cost convention modified by the revaluation of investments. The charity is a Public Benefit Entity as defined by FRS102.

The principal accounting policies adopted in the preparation of the Financial Statements are as follows:

### ***Income***

All incoming resources are accounted for on a receivable basis.

### ***Prizes and summer studentships***

The cost of Research Prize Fellowships is charged in the year awarded.

### ***Expenditure***

The costs of raising funds include those fees payable to the Institute's investment fund managers for the management of the Institute's investment portfolio. These are accounted for on an accruals basis.

Charitable activities comprise all expenditure directly relating to the objects of the charity and are accounted for on an accruals basis. The allocation of expenditure between governance and management, administration and support costs is reviewed on an annual basis to ensure the allocation is appropriate. Indirect costs are generally treated as falling into the latter category with the exception of a proportion of salary and related costs, which has been classified as governance costs.

In addition to auditor's remuneration, governance costs comprise the proportion of staff costs associated with the time spent on the preparation of the statutory accounts and other governance issues, together with honoraria remuneration provided to members of the Institute's Scientific Advisory Committee for their duties in selecting the Prize Fellows.

### ***Supplementary pensions and staff pensions***

An estimate of the full provision is made in the Financial Statements for the costs of future supplementary payments. The provision and charge to income are reviewed annually by the Trustees in the knowledge that the number of persons receiving the supplementary pensions will not increase. The pension costs are assessed in accordance with actuarial advice and these costs are accounted for in accordance with FRS102 SORP.

Existing employees participate in a defined contribution scheme, the costs of which are expensed as incurred. These disclosures are made in accordance with FRS102 SORP.

### ***Fixed Assets***

Any capital items purchased under £1k in value are expensed in the accounts in full as incurred. The Charity has no fixed assets.

### ***Investments***

Investments are shown at market value in the balance sheet. Changes in the market value are included in the Statement of Financial Activities as realised and unrealised investment gains or losses in the year in which they arise. Investments denominated in foreign currencies are valued at year-end rates of exchange.

### ***Cash flow statement***

The Charity has included a cash flow statement in accordance with FRS102 SORP.

*Note 1 continues opposite*

## 1 PRINCIPAL ACCOUNTING POLICIES continued

### **Taxation**

The organisation is a registered charity and has obtained exemptions from taxation under Part 11, Chapter 3 of the Corporation Tax Act 2010. This exemption will remain as long as income is compatible with that section and expenditure is applied to charitable purposes only.

### **Critical accounting estimates and areas of judgement**

In preparing financial statements it is necessary to make certain judgements, estimates and assumptions that affect the amounts recognised in the financial statements. The Trustees consider the estimates involved in the valuation of investments to have most significant effect on amounts recognised in the financial statements. These are taken directly from Investment Managers' reports.

In addition the company has an obligation to pay pension benefits to certain employees. The cost of these benefits and the present value of the obligation depend on a number of factors including: life expectancy, salary increases, asset valuations and the discount rate on corporate bonds. Management estimates these factors in determining the net pension obligation in the balance sheet. The assumptions reflect historical experience and current trends. See Note 13 for the disclosures relating to the defined benefit pension scheme.

### **Going Concern**

The Trustees have assessed whether the use of the going concern basis is appropriate and have considered possible events or conditions that might cast significant doubt on the ability of the charity to continue as a going concern. The Trustees have made this assessment for a period of at least one year from the date of approval of the financial statements. After making enquiries, the Trustees have concluded that there are no material uncertainties that cast significant doubt on the charity's ability to continue as a going concern. The charity therefore continues to adopt the going concern basis in preparing its financial statements.

### **Financial instruments**

The company has elected to apply the provisions of Section 11 'Basic Financial Instruments' and Section 12 'Other Financial Instruments Issues' of FRS102 to all of its financial instruments. Financial instruments are recognised in the company's balance sheet when the company 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.

With the exceptions of prepayments and deferred income all other debtor and creditor balances are considered to be basic financial instruments under FRS 102. See Notes 10 and 12 for the debtor and creditor notes.

### **Fund accounting**

Restricted funds are funds available subject to specific restrictions imposed by donors. Unrestricted funds are available for use at the discretion of the Trustees in furtherance of the general objectives of the Institute.



<b>2 INVESTMENT INCOME</b>		
	2017	2016
	£'000	£'000
Income from fixed asset investments	714	686
Bank interest receivable	-	-
	714	686

<b>3 OTHER INCOME</b>		
	2017	2016
	£'000	£'000
Royalty income CRT Ltd	20	9
TauRX	-	85
Donations	-	9
	20	103

Royalty income is earned from Cancer Research Technology as a result of revenue sharing related to Glover research studies £20k (2016: £9k). There is no income in 2017 against the MRC TauRX share sale (2016: £85k). No donations were received in the year (2016: £9k).

<b>4 INVESTMENT MANAGEMENT COSTS</b>		
	2017	2016
	£'000	£'000
Partners Capital LLP	165	121
Cazenove Capital Management	124	110
Total investment management fees	289	231

Investment management fees referred to here are those accrued fees relating to the management of the Institute's investment portfolios in 2017.

**5 GOVERNING BODY AND STAFF COSTS****Emoluments of members of the Governing Body**

No member of the Governing Body received any emoluments in respect of services to the Institute during the year (2016: nil). Travel expenses of £2,297 were paid relating to the claims of nine members in connection with their attendance at meetings (2016: £1,897, nine members).

Members of the Governing Body who are also members of the Scientific Advisory Committee receive remuneration in relation to their services to the committee. An honorarium of £1,500 (2016: £1,500) was paid to one of the members, the remainder all received £1,000 (2016: £1,000).

**Employee information**

The average number of persons employed by the Institute during the year was three (2016: three), two of whom are part-time (2016: two). All staff were employed in an administrative and support capacity. No employees earn over £60k p.a. (2016: none).

Key management personnel include the Trustees and the Director. The total employee benefits of the charity's key management personnel were £51,540 (2016: £50,070).

**Staff costs**

	2017	2016
	£'000	£'000
Gross salaries	87	85
Pension contributions	3	3
Employer's national insurance	6	6
	96	94

The salary costs are allocated under governance where related to statutory accounts preparation, the balance being reported within charitable activities.

**6 PRIZES & SUMMER STUDENTSHIPS**

	2017	2016
	£'000	£'000
Prize awards	1,000	817
Summer Studentship payments	48	50
Support costs (see Note 7)	67	79
Salaries (see Note 5)	84	82
Governance costs (see Note 8)	32	32
	1,231	1,060

**7 SUPPORT COSTS**

	2017	2016
	£'000	£'000
Office expenses	22	12
Travel expenses	4	4
Professional fees	5	4
Honoraria and events	28	50
Pension costs (see Note 13)	8	9
	67	79

These costs are all considered to be costs to support resources expended on charitable activities.

**8 GOVERNANCE COSTS**

	2017	2016
	£'000	£'000
Auditors' remuneration	11	11
Staff costs (see Note 5)	12	13
Honoraria and events	9	8
	32	32

No non-audit services were provided by the auditors during the year (2016: none). Auditors' remuneration includes irrecoverable VAT.

**9 INVESTMENTS**

Listed investments are valued at middle market quotations ruling at the year-end

	2017	2016
	£'000	£'000
Market value at beginning of year	41,492	38,568
Purchases during the year at cost	13,719	6,151
Proceeds of sales during the year	(13,747)	(7,162)
Reinvested income for the year	570	550
Movement in un-invested cash	(83)	952
Cash withdrawn	(1,000)	(1,200)
Net change in market value	2,632	3,633
Market value at year-end	43,583	41,492

*Note 9 continues opposite*

**9 INVESTMENTS continued**

The portfolio's asset allocation was as follows:

	2017	2016
	£'000	£'000
<i>UK investments</i>		
Equities	7,917	8,200
Fixed interest	5,655	5,043
Other (including private equity, property, commodities, alternatives and inflation-linked bonds)	5,868	7,723
Cash	1,616	813
<b>Total UK investments</b>	<b>21,056</b>	<b>21,779</b>
<i>Non-UK investments</i>		
Equities	15,895	8,322
Other (including private equity, property, commodities and alternatives)	5,716	11,017
Cash	916	374
<b>Total non-UK investments</b>	<b>22,527</b>	<b>19,713</b>
<b>Total</b>	<b>43,583</b>	<b>41,492</b>

At 31 December 2017 no single shareholding exceeded 5% of the total value of investments (2016: none).  
Historical cost related to the closing position of 2017 was £33.7m (2016: £31.1m).

**10 DEBTORS**

	2017	2016
	£'000	£'000
Prepayments	3	1
Accrued income	20	9
Other debtors	-	183
<b>Total</b>	<b>23</b>	<b>193</b>

**11 CASH**

	2017	2016
	£'000	£'000
Cash at bank	133	193

**12 CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR**

	2017	2016
	£'000	£'000
Taxation and social security	3	4
Accruals	95	60
<b>Total creditors falling due within one year</b>	<b>98</b>	<b>64</b>

**13 PROVISION FOR LIABILITIES AND CHARGES**

This represents a provision for future supplementary pension payments, in respect of ex-employees, based on their salary and length of service. The pensions are unfunded, with payments made out of the Institute's funds as they fall due.

Movements in the pension provision during the year were as below:

	2017	2016
	£'000	£'000
Liability at beginning of period	168	177
Plus interest cost	8	9
Plus actuarial gains and losses	11	9
Benefits paid	(27)	(27)
<b>Liability at end of period</b>	<b>160</b>	<b>168</b>

The tables below state the FRS102 actuarial assumptions used to estimate the pension provision.

*Principal actuarial assumptions*

Valuation at 31 December 2017

	2017	2016
Rate of increase to pensions in payment	3.0%	3.0%
Rate used to discount scheme liabilities	5.0%	5.0%

The post-retirement mortality assumption uses the PCA00 base tables (year of birth) with improvements equal to medium cohort with a 1% minimum.

**14 RELATED PARTY TRANSACTIONS**

There were no related party transactions in the year (2016: none).

**15 FINANCIAL INSTRUMENTS**

	2017	2016
	£'000	£'000
Carrying amount of financial asset debt instrument at amortised cost	20	192
Carrying amount of financial liabilities measured at amortised cost	95	60

**16 MEMBERS' LIABILITY**

The liability of the Members of the Institute is limited to 50p. At the date of the financial statements, there were 197 members (2016: 190 members), each with a guarantee potential of 50p.

## **ANNUAL REPORT AND FINANCIAL STATEMENTS**

for the year ended 31 December

# 2018

## LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2018

### THE GOVERNING BODY

Professor Sir Alex Markham, DSc, FRCP, FRCPath, FMedSci, Chairman  
Mr Michael French, BSc(Eng), FCA, Hon Treasurer  
Professor Judith Armitage, BSc, PhD, FRS  
Professor Wendy Bickmore, BA, PhD, FMedSci, FRS, FRSE  
Professor Sir Adrian P Bird, CBE, FRS, FRSE  
Professor Rebecca Fitzgerald, MD, FRCP, FMedSci  
Hon Rory M B Guinness, BA, FCIM  
Professor Douglas Higgs, MBBS, MRCP, FRCPath, DSc, FRCP, FRCPath, FRS  
Mr Andrew Hutton, MA, CFA  
Professor John Iredale, FRCP, FMedSci, FRSE  
Professor Sir Alec J Jeffreys, CH, DPhil, FMedSci, FRS  
Mr Matthew Pintus, BA  
Professor Dame Pamela Shaw, DBE, FRCP, FMedSci (*appointed 7 September 2018*)

### SENIOR MANAGEMENT

*Secretary and Director:* Ms Kate Law

#### *Business Address*

PO Box 2502  
Watford  
WD18 1AE

#### *Registered Office*

Macfarlanes  
10 Norwich Street  
London EC4A 1BD

#### *Solicitors*

Macfarlanes  
20 Cursitor Street  
London EC4A 1LT

#### *Investment Advisors*

Cazenove Capital Management  
1 London Wall Place  
London EC2Y 5AU

#### *Bankers*

Messrs Coutts & Co  
St Martins Office  
440 Strand  
London WC2R 0QS

#### *Partners Capital LLP*

5 Young Street  
London W8 5EH

*Website:* [www.lister-institute.org.uk](http://www.lister-institute.org.uk)

*Telephone:* 01923 801886

#### *Auditor*

Kingston Smith LLP  
Devonshire House  
60 Goswell Road  
London EC1M 7AD

The Institute was founded in 1891 and for the next 85 years played a vital role in the development of the laboratory aspects of preventive medicine as an independent research institute in the UK.

Financial pressures in the 1970s led to the closure of the research and production facilities and the conversion of the Lister Institute into a highly successful Trust awarding prestigious Research Fellowships from 1982, which in 2003, were revised to become Prize Fellowships. The Fellowships continue to deliver on the Lister Institute's strategic aim of nurturing the future leaders in biomedical research.



## LEGAL AND ADMINISTRATIVE INFORMATION

for the year ended 31 December 2018

### THE SCIENTIFIC ADVISORY COMMITTEE

Professor John Iredale, FRCP, FMedSci, FRSE, *Chairman*

Dr Ian Adams, BSc, PhD

Professor Judi Allen, MPH, PhD, FRSE, FRSB, FMedSci

Professor Jon Cohen, FRCP, FMedSci (*retired 7 September 2018*)

Professor Cyrus Cooper, OBE, MA, DM, FRCP, FFPH, FMedSci

Professor William Deakin, PhD, FRCPsych, FMedSci (*retired 7 September 2018*)

Professor Annette C Dolphin, PhD, FMedSci, FRS (*retired 7 September 2018*)

Professor Margaret C Frame, PhD FRSE FMedSci

Professor Corinne Houart, PhD

Professor Nick Lemoine, MD, PhD, FRCPath, FMedSci (*retired 7 September 2018*)

Professor Catherine Nobes, BSc, PhD

Professor Sir Mike Owen, PhD, FRCPsych, FMedSci, FLSW

Professor Barry V L Potter, MA, DPhil, DSc, CSci, FRSC, FMedSci

Professor Fiona Powrie, FRS FMedSci

Professor Christoph M Tang, MBChB, PhD, FMedSci

Professor Josef Vormoor

*Secretary: Ms Kate Law, BSc*

### THE FINANCE AND INVESTMENT COMMITTEE

Mr Michael French, BSc (Eng), FCA, *Chairman*

Professor Judith Armitage, BSc, PhD, FRS

Hon Rory M B Guinness, BA, FCIM

Mr Andrew Hutton, MA, CFA

Professor Sir Alex Markham, DSc, FRCP, FRCPath, FMedSci

Mr Matthew Pintus, BA

*Secretary: Ms Kate Law, BSc*

## CHAIRMAN'S ANNUAL REPORT

for the year ended 31 December 2018

**THE YEAR 2018** saw considerable volatility in global markets resulting, for the first time in a number of years, a small fall in the Institute's reserves, with a final valuation of £40.8m (from £43.6m at the end of 2018). Continuing market uncertainty relating to BREXIT and general global instability led to a decision to maintain the liquidity account of £5m, set aside to ensure that the Lister Institute is able to award a minimum of six prizes each year at £250k each over a three-year period.

The Governing Body has met, as usual, twice during the year, whilst the Charity's two sub-committees, the Finance and Investment Committee and the Scientific Advisory Committee have overseen their areas of responsibility with their usual efficiency.

On the research front the number of applications (103) is at its highest ever level and, given the quality of the applications and with the approval of the Trustees, I'm delighted to report that we were able to fund seven Fellowships at £250k each. The Lister Fellows and former Fellows continue to undertake excellent research, publish high impact papers and gain academic advancement and recognition on many fronts with congratulations going to former Lister Fellow, Professor Andrew King who, in 2018, was elected as a Fellow of the Royal Society. The Institute does, of course, appreciate that it cannot take sole credit for its Fellows and Members achievements, since they will receive personal support and funding from many other agencies. However, visits to Host Institutions and discussions with Fellows and Members of the Lister institute give me great confidence that the Lister Institute Prize is still seen as a highly prestigious and valued award, with the flexibility that it offers its greatest strength.

### Governing Body and Administrative Matters

The Governing Body met once in April and then before the start of the September Fellows' meeting in Oxford (of which more later). As ever, I must pay tribute to the quality and dedication of its members and the speed and clarity with which they respond to Lister matters. Turnover amongst Trustees of a charity is a necessity, since it brings new individuals with a fresh perspective to the oversight of the organisation. This year I am delighted to report that Professor Dame Pamela Shaw, DBE, FRCP, FMedSci (Vice President and Head of the Faculty of Medicine and Dentistry and Professor of Neurology at the University of Sheffield) has agreed to join the Governing Body and was formally appointed to this position at the AGM in September.

The Articles of Association of the Lister Institute require that, each year, the longest serving elected member on the Governing Body step down. Professor Wendy Bickmore is currently the longest serving elected member and I'm pleased to report that she has agreed to serve another term which was approved unanimously by members at the AGM.

The Institute continues to be run very smoothly thanks to a small administrative team consisting of the director, Kate Law, the administrator, Naomi King and accountant, Jacky Wilson. My thanks, as ever, go to them on behalf of all the Trustees. Sadly, I do have to report that, in 2019/20, there is likely to be significant change in the administrative team with all three planning their retirement over the next 18 months. I am entirely confident that they will ensure a seamless transfer with their respective successors.

## Institute membership

Four Fellows, who completed their fellowship in 2018, have been welcomed into membership of the Institute. They are: Professor Simon Draper, University of Oxford, Professor Sherif El-Khamisy, University of Sheffield, Dr Anne Straube, University of Warwick, and Professor Tatjana Sauka-Spengler, University of Oxford.

## Financial Matters

During a continuing period of global instability including the lack of clarity regarding the impact of BREXIT the Lister portfolio has, perhaps unsurprisingly, reduced by almost £3m since 31st December 2017 resulting in reserves of £40.7m once the £1.75m had been withdrawn to pay for this year's Fellowships. Both investment managers have performed as well as could be expected in a challenging environment although there will, as a routine, be close monitoring of the portfolio as well as ongoing discussions with respect to the number and level of Fellowships and Studentships. The low volatility portfolio does, reassuringly, provide us with significant protection against a weak and volatile market and ensures the ability to fund six Fellowships and 40 Studentships over a 3-year period as agreed by the Governing Body Members in 2017 and ratified in 2018.

All expenditures are in line with the agreed 2018 budget. The Institute's operational costs remain low at £194k, with investment fees less than for 2017 at £215k compare to £289k. The Lister Institute's total expenditure for 2018 was £2.23m. There will be ongoing IT costs to ensure compliance with data security requirements under EU legislation (which will continue even if we should leave the EU).

As always, the Lister institute is indebted to our Treasurer, Michael French and all the members of the Finance and Investment Committee and I should like to thank them all for their scrutiny of the Institute's finances (and the rigorous questioning of our current investment advisors, Partners Capital LLP and Cazenove Capital Management). As chairman, it is particularly pleasing to see, as notably demonstrated in 2018, their willingness to maximise expenditure on science. There were no significant issues with respect to the accounts raised by the auditors, Kingston Smith.

As previously mentioned, I'm sorry to inform you that Jacky Wilson, who has provided us with exemplary service as the Lister accountant for over 15 years, will be leaving us in 2019. With the assistance of one of our trustees, the Hon Rory Guinness, plans are well underway to ensure a smooth transition to a new accountant in 2019.

Further details on the Institute's finances can be found on page 22 and are summarised in the Statement of Financial Activities on page 27.

## Scientific Activities

The work of the Scientific Advisory Committee in selecting the Prize Fellows is at the heart of the Institute's activities. In 2018 we received the highest ever number of applications and the SAC was faced with the daunting task of selecting just 6 (later increased to 7) Prize Fellows from 103 proposals. The Institute is indebted to its members for their dedication and enthusiasm for the task and I would like to particularly thank the new Chairman, Professor John Iredale, for taking on this challenging role. The process follows a standard pattern with initial screening and scoring by SAC members to arrive at a long-list. The candidates are then further evaluated with the help of comments from independent international reviewers, arriving at a short-list of eleven candidates who were then interviewed. As the selection process proceeds, the standards are very high and, coupled with the diverse fields of research represented, the task of selecting the 'winners' is extremely difficult – it is a tribute to SAC members and their chairman that each year they identify some truly exceptional young researchers – and this year was no different. It is important that awards reflect the diversity of applicants and researchers in general and reassuring to see the geographical spread and gender balance of the Fellows.



Professor Sir Alex Markham

Given the history of the Institute and its close ties with the Guinness family it is, however, somewhat disappointing that we have never awarded a Prize to an Ireland based researcher. This year Rory Guinness, Kate Law and I attempted to address this situation by visiting Dublin and hosting a meeting of a number of locally based senior and junior academics and generally promoting the Prize Fellowship scheme. Kate also sent flyers with information about the scheme across Ireland. This resulted in a significant increase in the number of 2018 applications from Ireland. However, at the time of writing it is too early to say whether or not any will be successful in 2019.

As with all Institute committees there is planned turnover in the membership and, in 2018, we were sorry to lose Professors Jon Cohen, Bill Deakin, Annette Dolphin and Nick Lemoine. Replacing them (and members who had left in 2017) the Institute was pleased to welcome Professors Judi Allen, Kate Nobes, Mike Owen, Barry Potter, Fiona Powrie and Josef Vormoor to their first meeting of the SAC.

I was delighted to see the Summer Studentship scheme extended to 36 recipients (one more than budgeted). The scheme enables Lister Fellows and Former Fellows to offer places to outstanding students who then have the opportunity to experience research in a first-rate laboratory and make better informed decisions about their career pathways. Given the scheme's popularity (it is always over-subscribed) and its success, the Trustees have agreed to increase the number of Studentships to 45 next year.

## 2018 Lister Research Prize Fellowship Winners

<i>Prize Winner</i>	<i>Title of Research</i>
 <p><b>Dr Tom Baden</b> University of Sussex</p>	Anisotropic retinal circuits for processing of colour and space in nature
 <p><b>Dr Rebecca Corrigan</b> University of Sheffield</p>	Analysis of the role of (p)ppGpp in staphylococcal infection using zebrafish as a model organism
 <p><b>Dr Mark Dodding</b> University of Bristol</p>	A new chemical biology approach to target molecular motors for the manipulation of cytoskeleton and organelle dynamics
 <p><b>Dr Matthew Hepworth</b> University of Manchester</p>	Targeting cell metabolism to regulate innate lymphoid cells in health and disease
 <p><b>Dr Yanlan Mao</b> MRC-Laboratory for Molecular Cell Biology University College London</p>	Mechanochemical regulation of tissue growth and morphogenesis
 <p><b>Dr Joseph Marsh</b> MRC Human Genetics Unit University of Edinburgh</p>	The dominant-negative effect in protein complexes: implications for human genetic disease
 <p><b>Dr Amanda Sferruzzi-Perri</b> University of Cambridge</p>	Biomarkers of materno-fetal health: role of placental endocrine mediators in normal and obese pregnancies

*Note: The academic rank of each Prize winner is shown as at the date of the award.*

## Current and Former Lister Prize Fellows

<i>Fellow</i>	<i>Title of Research</i>	<i>Awarded</i>
<b>Dr Cynthia Andoniadou</b> King's College London	Regulation of stem cell potential in the mammalian pituitary gland	2016
<b>Dr M Madan Babu</b> MRC Laboratory of Molecular Biology, Cambridge	Dynamics of tRNA abundance and the regulation of protein expression levels	2014
<b>Dr Nina Balthasar</b> University of Bristol	Identifying the novel CREB coactivator TORC2's role in the hypothalamic pathways controlling energy homeostasis	2007
<b>Dr Oliver Billker</b> The Wellcome Trust Sanger Institute, Cambridge	In search of the xanthurenic acid receptor of malaria parasites - a potential target for transmission control	2004
<b>Dr Emmanuel Boucrot</b> University College London	Mechanisms of cargo selection and vesicle formation in a novel pathway of endocytosis	2014
<b>Dr Simon Bullock</b> MRC Laboratory of Molecular Biology, Cambridge	Mechanisms and neuronal functions of motor-driven transport	2008
<b>Professor Nia Bryant</b> University of York	Using yeast as a model system to understand the insulin-dependent trafficking of GLUT4 in adipocytes	2004
<b>Professor Juan Burrone</b> King's College London	The role of neuronal activity during synapse formation	2009
<b>Dr Vincenzo Costanzo</b> Cancer Research UK Clare Hall Laboratories	The role of ATM and ATR in preventing genomic instability	2006
<b>Professor Victoria Cowling</b> University of Dundee	Regulation and function of the 7-methylguanosine cap	2011
<b>Professor Daniel Davis</b> Imperial College London	Nanotubes and synapses in immune cell communication	2005
<b>Professor Simon Draper</b> The Jenner Institute, Oxford	Development of next-generation broadly-neutralising vaccines against the blood stage infection of human malarial	2013

Current and Former Lister Prize Fellows *Continued*

<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Professor Michael Eddleston</b> University of Edinburgh	Prevention of deaths from late respiratory failure in organo-phosphorus pesticide poisoning	2011
<b>Professor Sherif El-Khamisy</b> University of Sheffield	The repair of oxidative and topoisomerase induced chromosomal strand breaks and human disease	2013
<b>Professor Rebecca Fitzgerald</b> University of Cambridge	Translational research programme for prevention of oesophageal adenocarcinoma	2008
<b>Dr Agnieszka Gambus</b> University of Birmingham	Identification and characterisation of Mcm7 ubiquitin ligase	2015
<b>Dr Holger Gerhardt</b> VIB Vesalius Research Centre KU, Germany	Endothelial guidance in vascular patterning	2008
<b>Dr Susana Godinho</b> Queen Mary University of London	Regulation of paracrine signalling by centrosome amplification	2016
<b>Professor Fiona Gribble</b> University of Cambridge	Secretion of incretin hormones from the mouse intestine	2006
<b>Dr Sebastian Guettler</b> The Institute of Cancer Research	Structural basis and mechanism of telomere maintenance by poly(ADP-ribosyl)ation	2017
<b>Professor Muzlifah Haniffa</b> Newcastle University	In vivo kinetics and functional response of human mononuclear phagocytes during acute tissue inflammation	2016
<b>Dr Sophie Helaine</b> Imperial College London	Salmonella Persister formation at the single cell level	2017
<b>Professor Andrew Jackson</b> University of Edinburgh	Cellular pathways determining human brain size	2009
<b>Dr Ragnhildur Karadottir</b> Wellcome Trust – MRC Cambridge Stem Cell Institute	The role of neuronal activity in myelin repair	2015

<b>Fellow</b>	<b>Title of Research</b>	<b>Awarded</b>
<b>Professor Josef Kittler</b> University College London	Miro family proteins as regulators of synaptic bioenergetics and a locus for mitochondrial dysfunction in neurological disease	2010
<b>Professor Robert Klose</b> University of Oxford	Biochemical isolation and functional dissection of the CpG island proteome	2011
<b>Dr David Komander</b> MRC Laboratory of Molecular Biology, Cambridge	Bacterial interference with the ubiquitin system	2012
<b>Dr Yogesh Kulathu</b> University of Dundee	Regulation and function of protein FUBlylation	2017
<b>Professor Paul Lehner</b> University of Cambridge	The role of HSP70 in MHC Class I mediated antigen presentation in human dendritic cells	2004
<b>Professor David Lyons</b> University of Edinburgh	Elucidating mechanisms of myelinated axon formation, function and repair using zebrafish	2012
<b>Professor Juan Martin-Serrano</b> King's College London	Functional parallels between HIV-1 budding and the last step of cell division	2008
<b>Professor Robin May</b> University of Birmingham	The molecular basis of latency and dissemination during cryptococcosis	2010
<b>Dr Serge Mostowy</b> Imperial College London	Bacterial autophagy and the cytoskeleton in host defence	2015
<b>Dr James Nathan</b> Cambridge Institute for Medical Research	The interplay between metabolism and oxygen sensing	2017
<b>Dr Akhilesh Reddy</b> University of Cambridge	Peroxisomes and redox oscillations in the circadian (24 hour) clockwork	2012
<b>Professor Jan Rehwinkel</b> University of Oxford	Z-RNA and Z-DNA: Novel inducers of antiviral immunity	2016

Current and Former Lister Prize Fellows *Continued*

<i>Fellow</i>	<i>Title of Research</i>	<i>Awarded</i>
<b>Dr Rahul Roychoudhuri</b> The Babraham Institute	Resolving mechanisms of gene regulation within the immune system using forward genetics	2017
<b>Professor Tatjana Sauka-Spengler</b> Weatherall Institute of Molecular Medicine, Oxford	Decoding gene regulatory circuits controlling multipotency of neural crest	2013
<b>Dr Melina Schuh</b> Max Planck Institute for Biophysical Chemistry, Germany	Mechanisms of aneuploidy in human oocytes	2014
<b>Professor Daniel Smith</b> University of Glasgow	Investigating the overlap between hypertension and bipolar disorder to identify new and repurposed medications for bipolar disorder	2016
<b>Professor Kenneth Smith</b> University of Cambridge	Control of infection and autoimmunity by an inhibitory Fc receptor FcγR11b	2007
<b>Professor Grant Stewart</b> University of Birmingham	Investigating the role of the RIDDLE syndrome gene in promoting repair of DNA damage	2009
<b>Dr Anne Straube</b> University of Warwick	Microtubule-actin crosstalk in cell migration	2013
<b>Dr Sarah Teichmann</b> The Wellcome Trust Sanger Inst and EMBL-EBI, Cambridge	Decoding genetic switches in T helper cell differentiation	2010
<b>Professor Tomoyuki Tanaka</b> University of Dundee	Mechanisms of kinetochore-microtubule interaction	2005
<b>Professor Chris Thompson</b> University of Manchester	Identifying and characterising genes that control cell fate choice and social behaviour	2005
<b>Professor Daan van Aalten</b> University of Dundee	Structural mechanisms and specificity of O-GlcNAc signalling in the eukaryotic cell	2006
<b>Dr Fiona Wardle</b> King's College London	Transcriptional control of mesodermal cell differentiation in vertebrates	2007

<i>Fellow</i>	<i>Title of Research</i>	<i>Awarded</i>
<b>Dr Erica Watson</b> University of Cambridge	Mechanisms of folate metabolism during the trans-generational inheritance of disease	2015
<b>Professor Steven West</b> University of Exeter	The nature, mechanism and function of RNA polymerase II modifications in health and disease	2015

**Fellowship Activities**

With Christ's College, Cambridge no longer able to host the Institute's annual meeting we moved to the equally beautiful surroundings of Corpus Christi College, Oxford who provided excellent support in making the meeting its usual success. Turnout was slightly higher than in 2017 and, given the positive feedback from the two-day meeting in 2016 (celebrating the 125th anniversary of the Institute) we continued with a similar schedule. The meeting began on Thursday afternoon with an informal poster session which provides current Fellows with an excellent opportunity to present and discuss their research and any concerns they may have with senior members of the Institute. It is encouraging to note that a number of collaborations have been established in this way.

Friday's meeting provided, as ever, a series of outstanding presentations across a diverse range of topics. The day was taken up by excellent talks from all seven of the winners of the 2018 Prize Fellowships listed on page 8, in addition to one Fellow (Dr Yogesh Kulathu, University of Dundee) who had been unable to attend in 2017. These talks aptly illustrated the diversity of scientific research funded by the Institute.

<b>Dr Yogesh Kulathu</b> University of Dundee	Regulation and function of protein FUBylation
<b>Dr Tom Baden</b> University of Sussex	Evolution of function in the brain: What can we learn from the vertebrate retina?
<b>Dr Rebecca Corrigan</b> University of Sheffield	ppGpp – an essential signaling system for the virulence of bacteria
<b>Dr Mark Dodding</b> University of Bristol	Mechanism and manipulation of kinesin-1 inhibition and activation
<b>Dr Matthew Hepworth</b> University of Manchester	Innate lymphoid cells in health and disease



**Dr Joseph Marsh**  
University of Edinburgh

Protein complexes and human genetic disease

**Dr Amanda Sferruzzi-Perri**  
University of Cambridge

Understanding how the placenta remote controls the metabolism of the mother to support fetal growth

**Dr Yanlan Mao**  
University College London

Biomechanical regulation of tissue growth and repair



*Photos: Professor Sir Alex Markham and Dr Yogesh Kulathu; Professor Sir Alex Markham and Dr Amanda Sferruzzi-Perri; Professor Sir Adrian Bird*

The quality of these talks from the most recent members of the 'Lister Institute family' established the continuing excellence of Lister Prize winners. Whilst the topics varied widely throughout the day the depth of knowledge and enthusiasm of the speakers was a constant, confirming the outstanding quality of the individuals awarded Lister Prize Fellowships.

The 2018 Special Lister Institute Lecture was given by Professor Sir Adrian Bird, CBE, FRS, FRSE, Buchanan Chair of Genetics at the University of Edinburgh. Professor Bird's talk entitled 'Towards understanding and treatment of Rett Syndrome' described his work studying animal models of the debilitating autism spectrum disorder, Rett Syndrome to better understand the origin and potential reversal of this condition. This profound brain disorder almost exclusively results from mutations in the MECP2 gene. Remarkably, Rett syndrome in mice is reversed by restoring the normal gene, strongly suggesting that the disorder will be curable. Professor Bird explained that his Group has supported a two-pronged effort to bring treatments for Rett syndrome closer to the clinic. One promising approach involves administration of a correct MECP2 gene to the brain via gene therapy. A second bottom-up route involves learning how the protein works so that downstream consequences of its absence can be rectified. They have learned that MeCP2 binds to sites on the genome that are chemically altered by DNA methylation; it therefore acts as a "reader" of this "epigenetic" mark. The spectrum of mutations causing Rett syndrome, backed up by biochemistry and genetics, reveal that the primary function of MeCP2 is to inhibit gene expression in a DNA methylation-dependent manner. These results elucidate the global role played by MeCP2 in neurons and they suggest future options for therapy.

Professor Bird set a very high bar for those giving Special Lectures in the future years given his ability to speak on a complex subject with such clarity and enthusiasm.

The Reception and dinner were the usual lively and enjoyable occasions and, following presentation of scrolls to the eight Prize Fellows from 2017 and 2018, they were welcomed into the Lister Institute Family in traditional style. A fitting finale to our first meeting in Oxford!

## Conclusion

There is always a risk in moving away from a successful venue. However, I was delighted with the first annual meeting in Oxford and look forward to our future meetings in that location. As always, the meeting provides the opportunity to gain insight into the high-quality research of those who gave presentations but also the opportunity for Fellows and Members to speak informally about science and careers. We know from speaking to the current fellows how much they value the opportunity to mix with their senior colleagues and discuss their research and the general challenges of academia.



*Photos: Professor Sir Alex Markham with Dr Tom Baden; Professor Sir Alex Markham with Dr Joseph Marsh*

As ever, one of the highlights of the year for me has been listening to the Prize Fellows giving seminars in their own departments, hearing how the award has helped them develop their research groups and talking to other members of their departments about the research environment and any funding issues. Travelling around the country also serves to reassure me about the wide geographical spread of the Fellowships with a number of 'new' locations visited in 2018. To all of those Fellows and their host institutions, Kate Law and I would like to express our thanks for their hospitality and the ongoing support of the Fellows. It is very clear to me that the Lister Institute is fulfilling its stated aim of 'nurturing the future leaders in biomedical research'.

At this point it is again fitting that I pay tribute to Professor John Iredale and all the members of the Scientific Advisory Committee since it is eminently clear that they are doing an excellent job in selecting the very best individuals for the award of the Lister Prizes. As the number of applications continue to increase every year it is very apparent that this is becoming an increasingly demanding role! I must also thank all my colleagues on the Governing Body for all their hard work and support. The strength of the Institute is the people associated with it, whether they be Trustees, Members of the Governing Body and its sub-committees, the Membership, our Fellows or the staff, and to all I offer my sincere thanks and warmest appreciation.

**ALEX MARKHAM**  
CHAIRMAN

# FELLOWS' MEETING 2018

Corpus Christi College, Oxford



### Clockwise photos

1. Corpus Christi College, Oxford  
Image © 2019 Corpus Christi College, Oxford
2. 2018 winners plus 2017 (Dr Kulathu) with Professor Sir Alex Markham
3. The Hon Rory Guinness and Naomi King
4. Professor Sir Alex Markham and Dr Rebecca Corrigan
5. Dr James Nathan (left) and Dr Yogesh Kulathu



## REPORT OF THE GOVERNING BODY

for the year ended 31 December 2018

The Governing Body presents its Annual Report under the Charities Act 2011 together with the audited Financial Statements of the Charity for the year ended 31 December 2018. The Financial Statements have been prepared in accordance with the accounting policies set out in Note 1 (page 31) to the Financial Statements and comply with the Companies Act 2006, the FRS102 Charities SORP and the documents governing the constitution of the Charity.

### LEGAL AND ADMINISTRATIVE DETAILS

Legal and administrative information is set out on pages 3 and 4 of this report.

#### **Members of the Governing Body, Directors and Trustees**

The members of the Governing Body are, for the purposes of company law, Directors of the Institute and, for the purposes of charity law, Trustees of the Institute and throughout this report are collectively referred to as the Trustees.

Details of the Trustees serving throughout the year, unless otherwise stated, are set out on page 3.

### STRUCTURE, GOVERNANCE AND MANAGEMENT

#### **Constitution**

The Institute is registered with the Charity Commission for England and Wales (registration number 206271). It is incorporated and registered in England and Wales under the Companies Act 2006 as a company limited by guarantee and not having a share capital (company number 34479). It is governed by its Articles of Association and has charitable status.

#### **Appointment and re-appointment of Trustees**

The Trustees are the fifteen members of the Governing Body of whom six are appointed by the members at the annual general meeting. A maximum of six further Trustees are appointed by the Governing Body and there are currently

four such appointees. One additional member is Lord Iveagh's representative, another is Professor Sir Alec Jeffreys who was appointed to life-membership, and the final member, Professor Douglas Higgs, is the representative of the Royal Society. Trustees, other than the two nominated representatives, Professor Sir Alec Jeffreys and exceptionally those appointed by the Governing Body, generally serve for a maximum of six years and a system of planned rotation is in place. Currently two positions are deliberately being kept vacant. When considering appointment or nomination for election as Trustees, the Governing Body has regard to the specialist skills needed.

#### **Induction and training of Trustees**

New Trustees undergo induction sessions with the Chairman, Treasurer and Director during which they will gain an understanding of the Institute's structure, activities, financial position and future strategies. Prior to appointment they will attend, as 'observers', one meeting of the Governing Body. New Trustees will also be made aware of their legal obligations with regard to charity and company law. In addition, new Trustees will be advised of appropriate literature and training courses.

#### **Organisation**

The Institute is governed by its Governing Body which is responsible for setting policies, authorising actions on all significant operational issues and ensuring legality and good practice. The Governing Body meets formally twice a year. The Treasurer and Chairman review the remuneration of all staff once a year. This includes the remuneration of those individuals considered to be key management personnel.

Specific authorities are delegated to two sub-Committees in particular areas. The Scientific Advisory Committee (see page 4 for membership) has responsibility for the selection of the Lister Institute Prize Fellows and the monitoring of their scientific activities, as well

as providing scientific and medical advice to the Governing Body as required. In 2015, the peer review processes of the SAC were audited by the Association of Medical Research Charities and found to be meeting the highest standards. The Finance and Investment Committee (see page 4 for membership) has responsibility for interaction with the Institute's investment advisors, ensuring implementation of the Institute's investment policy and monitoring performance. It prepares and submits to the Governing Body the annual budget, and subsequently monitors performance against it. It also advises the Governing Body, as required, on other financial and risk matters.

The routine management of the Institute's activities is undertaken by its Director, aided by the Administrator and the Accountant. All staff work from home.

In the year ending 2018 none of the Charity's Trustees have received any remuneration or any other benefits in relation to their dealings with the Charity.

The Chairman and the Treasurer of the Charity agree the Director's remuneration that, along with other Lister Institute staff, is normally increased in line with RPI. Salaries are also compared to similar organisations and adjusted periodically where appropriate.

#### **Risk Management**

The Trustees assess the risks facing the Institute and review the effectiveness of the controls to monitor and mitigate them. A Risk Management Register is maintained and formally reviewed annually by the Governing Body.

The key controls used by the Institute include:

- Formal agendas for all Governing Body meetings
- Strategic planning, budgeting and management accounting
- Formal written policies

- Clear authorisation and approval levels
- Regular review of Fellows' scientific reports

The specific risk of bribery associated with any of the Institute's activities has been reviewed, and clear policies and procedures have been developed and communicated to all Trustees, staff and Members.

The specific risk of scientific misconduct by Lister Fellows has been reviewed by the Trustees and, as a result, minor amendments have been made to the risk log.

The Lister website and terms and conditions have been updated in response to the 2018 EU General Data Protection Regulation (GDPR). The Charity has also voluntarily subscribed to membership of the Information Commissioners Office (ICO) the UK's independent authority set up to uphold information rights in the public interest, promoting openness by public bodies and data privacy for individuals. Membership provides access to information and advice on matters relating to data protection and reassurance for the charity in respect of compliance with the Regulation.

The Institute maintains a 'Register of Interests' for all Governing Body and committee members as well as principal staff and operates a clear 'declaration of interests' policy and procedures for all meetings.

The principal risk facing the Institute lies in its ability to maintain and protect the value in real terms of its investments and to generate from them, on a long-term basis, a consistently high overall return. This risk is mitigated by the Institute's appointment of experienced investment managers with a proven track record; by internal controls that allow close and regular monitoring of their performance against benchmarks; by the Institute's requirement of its investment managers to re-tender periodically and competitively for appointment – as happened in 2017; and by regular meetings that formally review investment performance and



policy, and include one-to-one presentations by the investment managers.

Investment Policy Statements are in place for the Lister Institute and its investment partners. These are reviewed on an annual basis.

### **Objectives and activities**

The statutory Object of the Institute is to further understanding and progress in preventive medicine by promoting excellence in biomedical research in the UK and Ireland.

When founded in 1891, the Institute sought to achieve this objective by establishing a research institute specialising in the area of 'infections' and their prevention by immunisation and other means. It complemented these research activities by the production and supply of materials such as vaccines and anti-toxins.

The Institute continued in this mode until the late 1970s when increasing financial and regulatory pressures caused the cessation of these activities. Proceeds from the resultant sale of land and buildings created the investment funds from which present-day activities are financed; at 31 December 2018 these funds stood at £40.82m. From the 1980s the Institute has pursued its objective of nurturing future leaders by the provision of grant funding to facilitate the research and careers of high-quality individuals working in areas of biomedicine relevant to preventive medicine. It has done this because it believes that the acquisition and advancement of knowledge is crucial to the understanding of health and disease and that research to achieve this is driven forward by high quality individuals and their supporting staff.

### **Principal activities**

In pursuance of this objective, during 2018 the Institute awarded seven new Prize Fellowships. In addition, the Institute has continued its Summer Studentship scheme that has enabled an increasing number of undergraduates per

year to work with Lister Institute Fellows or former Fellows in order to gain experience of biomedical research with the hope that they might consider it as a career.

### **Achievement and Performance**

The Scientific Advisory Committee has monitored the performance of the current 29 Lister Institute Prize Fellows, through detailed review of the annual reports on their research that include details of all publications and presentations. The Scientific Advisory Committee has reported to Trustees that it is of the view that all Fellows are undertaking high quality research and producing new knowledge that will contribute significantly to our understanding of disease, its causes, treatment and prevention. The reports of the research undertaken by the Summer Students have also been reviewed and found to be very satisfactory.

Seven Lister Institute Prize Fellowships were awarded in 2018 to Dr Tom Baden, University of Sussex; Dr Rebecca Corrigan, University of Sheffield; Dr Mark Dodding, University of Bristol; Dr Matthew Hepworth, University of Manchester; Dr Joseph Marsh, University of Edinburgh, Dr Amanda Sferruzzi-Perri, University of Cambridge and Dr Yanlan Mao, University College London from an initial field of 103 applicants, following extensive scientific review of their applications and final interview by the Scientific Advisory Committee. (More details of the Prize Fellows and their research are provided on page 8). Each Prize Fellowship provides £250k that may be spent over five years on the recipient's research, with all the funds provided to the host institution at the commencement of the award.

Thirty six Summer Studentships were awarded in 2018. Each is a £2k student bursary and is paid to the host institution at the commencement of the award for the support of the student for up to a ten-week period.

The Institute maintained its commitment to fostering scientific interchange and collaboration within the Fellowship by holding its 34th Annual Research Fellowship meeting at Corpus Christi College, Oxford.

### **Public Benefit**

In so far as the statutory objectives, aims and activities of The Lister Institute of Preventive Medicine are to further understanding in preventive medicine by promoting biomedical research as set out on page 20 of this Report, the Trustees have considered the Charity Commission's guidance on public benefit, including the guidance 'public benefit: running a charity (PB2)'.

The public benefit of the Institute's grant-making is clearly identifiable in the 'Achievement and Performance' paragraphs above and in the list of Research Prize Fellows together with their areas of research on pages 9 to 13 of the Chairman's report. All Lister Institute Fellows are actively encouraged, where appropriate, to develop their research findings for potential public benefit and the Scientific Advisory Committee has regard to this when reviewing their research reports. The Lister Institute therefore benefits the public or a sector of it without imposing any restrictions. Applications from individuals are accepted only when demonstrably consistent with the charitable objectives of the Institute.

### **Impact**

The impact of the activities of a medical research charity can be measured at many levels ranging from the growth of knowledge to direct patient/public benefit. Often the transition from the former to the latter may take many years and the involvement of several organisations. The Institute requires that the results of the research it supports are published and disseminated; that, where appropriate, significant intellectual property is protected via patents; and that its commercial development is

encouraged. Several biotechnology companies have been formed around the findings of Institute-sponsored research and there are several interactions with large pharmaceutical companies. A prime example of the impact of Lister Institute research is DNA fingerprinting, which was discovered by Sir Alec Jeffreys when a Lister Institute Fellow and has become an integral part of society, helping to prove innocence or guilt in criminal cases, resolving immigration arguments and clarifying paternity.

### **Investment policy and performance**

The Institute's investment objective is to develop and maintain its financial resources through the selection of investments, consistent with an acceptable level of risk.

The Institute's investment portfolio is split between Cazenove Capital Management and Partners Capital LLP who both operate under mandates agreed in advance with the Finance and Investment Committee. These mandates set out an overall target asset allocation with allowable ranges for each category of asset.

Both investment managers invest on a total returns basis through a variety of pooled funds and in accordance with the Institute's overarching 'Investment Policy Statement' (IPS), which states the overall investment objective and sets the investment return objectives, the risk parameters, the performance measures and review procedures for the portfolio. The Institute's IPS was revised in the autumn of 2013 and again in 2015, as a result of the establishment of the liquidity reserve. Specific versions were also agreed for each of the investment managers to reflect their individual investment approaches. The IPSs are reviewed annually. The investment managers are informed at the beginning of the financial year of the Institute's likely cash requirements, both in terms of the amount and the timing of any draw-down and are asked to keep in an income or cash account sufficient funds to meet them.

The Institute has in place an ethical investment policy which does not permit direct investment in tobacco or tobacco-related companies.

The Institute's overall financial return objective is to preserve and, if possible, enhance the purchasing power of its portfolio assets, net of costs and approved withdrawals, over rolling five-year periods. This goal is synonymous with the pursuit of a time-weighted net return on portfolio assets that equals and, if possible, exceeds cost inflation as measured by the UK Consumer Price Index plus the Institute's long-term spending rate of 3-4% measured over corresponding five-year periods. Until 2018 this goal has been achieved over the previous five-year period.

The performance of the investment portfolio is reviewed by the Finance and Investment Committee, which had two meetings in the year with the investment advisors to review performance, liquidity within the portfolio, and the due diligence undertaken on potential new investment vehicles. In addition, the Institute receives detailed quarterly valuation and transaction reports. In a year that saw increasing volatility in the market the fund has fallen slightly from £43.58m to £40.82m. A decision, taken in 2015 (and ratified in subsequent years), to withdraw and place

£5m in a Liquidity Account was based both on the recent strong growth of the portfolio but also concerns about future market volatility and performance. Given the increase in the number and level of the Fellowships a further discussion was held in 2018 and the decision was made to maintain £5m in this Account, on a rolling basis, to be reviewed annually. This decision will ensure that six Prize Fellowships of £250k each can be awarded for at least three years from 2019.

More details of the Institute's activities are set out in the Chairman's Report on pages 5 to 15.

## FINANCIAL REVIEW

### *Allocation of resources*

The Institute, which does not seek to raise funds from the public, depends primarily on investment returns to meet its pension provision payments, administrative expenditure and expenditure in furtherance of the Charity's objectives. The total return on investments for the year was a realised/unrealised loss of £1.536m and investment income of £978k.

The resources expended totalled £2.253m of which £2.015m were resources expended for the Institute's charitable activities.

The Prize Fellowships are fixed sum awards and, therefore, expenditure can be regulated by altering the number and/or value of prizes awarded each year. In 2018, due to the substantial increase in the value of the investment portfolio, the Trustees felt able, as an exceptional case, to award seven Prizes and to increase their value to £250k each. As previously described, a £5m portfolio has been established so that the number and level of awards is sustainable over a minimum of three years. A decision was taken in 2017 to increase the number of studentships to thirty-five (an additional student was funded via Chairman's action) amounting to £72k. Forty-five studentships will be awarded in 2019.

Payments are currently made to five pensioners who are previous employees of the Lister Institute.

### *Reserves policy*

The policy of the Trustees is to maintain adequate financial resources to provide income to meet current and future commitments as they fall due and ensure that adequate funds remain available to enable them to make awards in perpetuity.

The adequacy of the level of reserves (£40.69m in 2018) and the continuing appropriateness of the policy are reviewed on an annual basis by the Trustees. Despite a slight fall in the level of reserves, they feel satisfied with the policy over

the long-term and, given that the Institute is not formally committed to awarding any Prizes beyond the current year, are confident in the ability of the Institute to maintain appropriate levels of activity in the short-term.

### *Plans for the future*

The Institute's future policy is to continue to pursue its current objectives. It will therefore maintain and look to increase the Prize Fellowship scheme, which it sees as a funding priority. The Summer Studentship scheme will also be increased when possible.

### *Trustee Responsibilities Statement*

The Trustees (who are also directors of The Lister Institute of Preventive Medicine 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 SORP;
- make judgments and estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; 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 proper 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.

In so far 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.

This Trustees' report has been prepared in accordance with the special provisions of Part 15 of the Companies Act 2006 relating to small companies.

By Order of the Governing Body

**SIR ALEXANDER F MARKHAM**  
Chairman

**MR MICHAEL FRENCH**  
Treasurer

25 April 2019

to the members of the Lister Institute of Preventive Medicine

## **Opinion**

We have audited the financial statements of The Lister Institute of Preventive Medicine ('the company') for the year ended 31 December 2018 which comprise the Statement of Financial Activities, the Balance Sheet, the Cash Flow Statement and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including FRS 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 state of the charitable company's affairs as at 31 December 2018 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

## **Basis for opinion**

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

these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## **Conclusions relating to going concern**

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

- the trustees' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the trustees have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

## **Other information**

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

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we

conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

## **Opinions on other matters prescribed by the Companies Act 2006**

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

- the information given in the trustees' annual report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the trustees' annual report have 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 company and its environment obtained in the course of the audit, we have not identified material misstatements in the trustees' annual 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; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of trustees' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit; or
- the trustees were not entitled to prepare the financial statements in accordance with the small companies regime and take advantage

of the small companies exemption in preparing the Trustees' Annual Report and from preparing a Strategic Report.

## **Responsibilities of trustees**

As explained more fully in the trustees' responsibilities statement set out on page 23, the trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Auditor's responsibilities for the audit of the financial statements

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 aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs (UK) we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purposes of expressing an opinion on the effectiveness of the charitable company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the trustees.
- Conclude on the appropriateness of the trustees' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the charitable company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions

may cause the charitable company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

#### 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 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 any party other than the charitable company and charitable company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Luke Holt (Senior Statutory Auditor)  
for and on behalf of Kingston Smith LLP,  
Statutory Auditor

Devonshire House  
60 Goswell Road  
London EC1M 7AD

Date: 3 June 2019

## STATEMENT OF FINANCIAL ACTIVITIES

for the year ended 31 December 2018

	Notes	2018	2017
		£'000	£'000
<b>Income from</b>			
Investments	2	978	714
Other	3	9	20
<b>Total income</b>		<b>987</b>	<b>734</b>
<b>Expenditure on</b>			
Cost of raising funds			
Investment management costs	4	(215)	(289)
Charitable Activities			
Prizes and Summer Studentships	6	(2,015)	(1,231)
<b>Total expenditure</b>		<b>(2,230)</b>	<b>(1,520)</b>
Net (losses)/gains on investment	9	(1,536)	2,632
<b>Net (expenditure)/income</b>		<b>(2,779)</b>	<b>1,846</b>
Other recognised gains/(losses):			
Actuarial losses on defined benefit schemes	13	(15)	(11)
Net movement in funds		(2,794)	1,835
Reconciliation of funds:			
Total funds brought forward		43,481	41,646
<b>Total funds carried forward</b>		<b>40,687</b>	<b>43,481</b>

All items in the above Statement of Financial Activities relate to continuing operations for both years. The Institute has no other recognised gains and losses other than as stated above and hence no separate income and expenditure statement has been shown.

The notes set out on pages 30 to 37 form part of these financial statements.



## BALANCE SHEET

for the year ended 31 December 2018

Company no: 34479

	Notes	2018	2017
		£'000	£'000
<i>Fixed assets</i>			
Investments	9	40,824	43,583
<b>Total fixed assets</b>		<b>40,824</b>	<b>43,583</b>
<i>Current assets</i>			
Debtors	10	11	23
Cash at bank and in hand	11	69	133
<b>Total current assets</b>		<b>80</b>	<b>156</b>
<i>Current liabilities</i>			
Creditors: amounts falling due within one year	12	(62)	(98)
<b>Net current assets</b>		<b>18</b>	<b>58</b>
<b>Total assets less current liabilities</b>		<b>40,842</b>	<b>43,641</b>
Creditors: amounts falling due after more than one year			
Pension provision	13	(155)	(160)
<b>Net assets</b>		<b>40,687</b>	<b>43,481</b>
<i>Represented by</i>			
Unrestricted funds		40,687	43,481
<b>Total charity funds</b>		<b>40,687</b>	<b>43,481</b>
<p>The Trustees have taken advantage of the exemptions conferred by the Companies Act 2006, on the grounds that the Institute is entitled to the benefit of those exemptions as a small company.</p> <p>These financial statements were approved by the Governing Body on 25 April 2019</p> <p style="text-align: center;"><b>ALEXANDER F MARKHAM</b> <b>MICHAEL FRENCH</b> Members of the Governing Body</p> <p>The notes set out on pages 30 to 37 form part of these financial statements.</p>			

## CASH FLOW STATEMENT

for the year ended 31 December 2018

	2018	2017
	£'000	£'000
<b>Cash flow/(outflow) from operating activities</b>		
Net cash (used in)/provided by operating activities	(2,265)	(1,315)
<b>Cash flows from investing activities</b>		
Investment income	978	714
Proceeds from disposal of fixed asset investments		
excluding endowment funds	7,550	13,747
Acquisition of fixed asset investments		
excluding endowment funds	(5,376)	(13,719)
Other movements on investments	(951)	513
	(64)	(60)
Net (decrease)/increase in cash and cash equivalents	(64)	(60)
Cash and cash equivalents at beginning of year	133	193
<b>Cash and cash equivalents at end of year</b>	<b>69</b>	<b>133</b>
<b>Reconciliation of net income/(expenditure) to net cash flow from operating activities</b>		
	2018	2017
	£'000	£'000
<b>Net (expenditure)/income</b>	<b>(2,794)</b>	<b>1,835</b>
<b>Adjustments for</b>		
Net losses/(gains) on investments	1,536	(2,632)
Investment Income	(978)	(714)
Decrease/(Increase) in debtors	12	170
Increase/(decrease) in creditors	(36)	34
(Decrease)/increase in pensions	(5)	(8)
<b>Net cash (used in)/provided by operating activities</b>	<b>(2,265)</b>	<b>(1,315)</b>

for the year ended 31 December 2018

## 1 PRINCIPAL ACCOUNTING POLICIES

### **Basis of preparation**

The Financial Statements have been prepared in accordance with the Statement of Recommended Practice, Accounting and Reporting by Charities (FRS102 SORP). The Financial Statements are prepared in accordance with the historical cost convention modified by the revaluation of investments. The charity is a Public Benefit Entity as defined by FRS102.

The Financial Statements are prepared in sterling which is the functional currency of the Charity. Monetary amounts in these Financial Statements are rounded to the nearest thousand pounds.

The principal accounting policies adopted in the preparation of the Financial Statements are as follows:

### **Income**

All incoming resources are accounted for on a receivable basis.

### **Prizes and summer studentships**

The cost of Research Prize Fellowships is charged in the year awarded.

### **Expenditure**

The costs of raising funds include those fees payable to the Institute's investment fund managers for the management of the Institute's investment portfolio. These are accounted for on an accruals basis.

Charitable activities comprise all expenditure directly relating to the objects of the charity and are accounted for on an accruals basis. The allocation of expenditure between governance and management, administration and support costs is reviewed on an annual basis to ensure the allocation is appropriate. Indirect costs are generally treated as falling into the latter category with the exception of a proportion of salary and related costs, which have been classified as governance costs.

In addition to auditor's remuneration, governance costs comprise the proportion of staff costs associated with the time spent on the preparation of the statutory accounts and other governance issues, together with honoraria remuneration provided to members of the Institute's Scientific Advisory Committee for their duties in selecting the Prize Fellows.

### **Supplementary pensions and staff pensions**

An estimate of the full provision is made in the Financial Statements for the costs of future supplementary payments. The provision and charge to income are reviewed annually by the Trustees in the knowledge that the number of persons receiving the supplementary pensions will not increase. The pension costs are assessed in accordance with actuarial advice and these costs are accounted for in accordance with FRS102 SORP.

Existing employees participate in a defined contribution scheme, the costs of which are expensed as incurred. These disclosures are made in accordance with FRS102 SORP.

### **Tangible Fixed Assets**

Any capital items purchased under £1k in value are expensed in the accounts in full as incurred. The Charity has no tangible fixed assets.

### **Investments**

Investments are shown at market value in the balance sheet. Changes in the market value are included in the Statement of Financial Activities as realised and unrealised investment gains or losses in the year in which they arise. Investments denominated in foreign currencies are valued at year-end rates of exchange.

## 1 PRINCIPAL ACCOUNTING POLICIES *continued*

### **Cash flow statement**

The Charity has included a cash flow statement in accordance with FRS102 SORP.

### **Taxation**

The organisation is a registered charity and has obtained exemptions from taxation under Part 11, Chapter 3 of the Corporation Tax Act 2010. This exemption will remain as long as income is compatible with that section and expenditure is applied to charitable purposes only.

### **Critical accounting estimates and areas of judgement**

In preparing financial statements it is necessary to make certain judgements, estimates and assumptions that affect the amounts recognised in the financial statements. The Trustees consider the estimates involved in the valuation of investments to have most significant effect on amounts recognised in the financial statements. These are taken directly from Investment Manager's reports.

In addition, the company has an obligation to pay pension benefits to certain employees. The cost of these benefits and the present value of the obligation depend on a number of factors including: life expectancy, salary increases, asset valuations and the discount rate on corporate bonds. Management estimates these factors in determining the net pension obligation in the balance sheet. The assumptions reflect historical experience and current trends. See Note 13 for the disclosures relating to the defined benefit pension scheme.

### **Going Concern**

The Trustees have assessed whether the use of the going concern basis is appropriate and have considered possible events or conditions that might cast significant doubt on the ability of the charity to continue as a going concern. The Trustees have made this assessment for a period of at least one year from the date of approval of the financial statements. After making enquiries, the Trustees have concluded that there are no material uncertainties that cast significant doubt on the charity's ability to continue as a going concern. The charity therefore continues to adopt the going concern basis in preparing its financial statements.

### **Financial instruments**

The company 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 company's balance sheet when the company 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.

With the exceptions of prepayments and deferred income all other debtor and creditor balances are considered to be basic financial instruments under FRS 102. See notes 10 and 12 for the debtor and creditor notes.

### **Fund accounting**

Restricted funds are funds available subject to specific restrictions imposed by donors. Unrestricted funds are available for use at the discretion of the Trustees in furtherance of the general objectives of the Institute.

2 INVESTMENT INCOME		
	2018	2017
	£'000	£'000
Income from fixed asset investments	977	714
Bank interest receivable	1	-
	978	714

3 OTHER INCOME		
	2018	2017
	£'000	£'000
Royalty income CRT Ltd	9	20
Total other income	9	20
Royalty income is earned from Cancer Research Technology as a result of Revenue sharing related to Glover research studies £9k (2017: £20k).		

4 INVESTMENT MANAGEMENT COSTS		
	2018	2017
	£'000	£'000
Partners Capital LLP	124	165
Cazenove Capital Management	91	124
Total investment management fees	215	289
Investment management fees referred to here are those accrued fees relating to the management of the Institute's investment portfolios in 2018.		

5 GOVERNING BODY AND STAFF COSTS		
<b>Emoluments of members of the Governing Body</b>		
No member of the Governing Body received any emoluments in respect of services to the Institute during the year (2017: nil). Travel expenses of £3,060. were paid relating to the claims of seven members in connection with their attendance at meetings (2017: £2,297, nine members).		
Members of the Governing Body who are also members of the Scientific Advisory Committee receive remuneration in relation to their services to the committee. An honorarium of £2,000 (2017: £1,500) was paid to one of the members, the remainder all received £1,000 (2017: £1,000).		
<b>Employee Information</b>		
The average number of persons employed by the Institute during the year was three, (2017: three) two of whom are part-time (2017: two). All staff were employed in an administrative and support capacity. No employees earn over £60,000 p.a. (2017: none).		
Key management personnel include the Trustees and the Director. The total employee benefits of the charity's key management personnel were £56,116 (2017: £51,540).		
<b>Staff Costs</b>		
	2018	2017
	£'000	£'000
Gross salaries	89	87
Pension contributions	3	3
Employer's national insurance	6	6
	98	96
The salary costs are allocated under governance where related to statutory accounts preparation, the balance being reported within charitable activities.		

6 PRIZES & SUMMER STUDENTSHIPS		
	2018	2017
	£'000	£'000
Prize awards	1,749	1,000
Summer studentship payments	72	48
Support costs (see note 7)	74	67
Salaries (see note 5)	86	84
Governance costs (see note 8)	34	32
	2,015	1,231

7 SUPPORT COSTS		
	2018	2017
	£'000	£'000
Office expenses	23	22
Travel expenses	5	4
Professional fees	5	5
Honoraria and events	33	28
Pension costs (see note 13)	8	8
	74	67
These costs are all considered to be costs to support resources expended on charitable activities		

8 GOVERNANCE COSTS		
	2018	2017
	£'000	£'000
Auditor's remuneration - current year	11	11
- prior year over accrual	(2)	-
Staff costs (see Note 5)	12	12
Honoraria and events	13	9
	34	32
No non-audit services were provided by the auditors during the year (2017: none). Auditors remuneration includes irrecoverable VAT.		

9 INVESTMENTS		
Listed investments are valued at middle market quotations ruling at the year-end		
	2018	2017
	£'000	£'000
Market value at beginning of year	43,583	41,492
Purchases during the year at cost	5,376	13,719
Proceeds of sales during the year	(7,550)	(13,747)
Reinvested income for the year	908	570

9 INVESTMENTS <i>continued</i>		
	2018	2017
	£'000	£'000
Movement in un-invested cash	1,993	(83)
Cash withdrawn	(1,950)	(1,000)
Net Change in market value	(1,536)	2,632
Market value at year-end	40,824	43,583
The portfolio's asset allocation was as follows		
<i>UK investments</i>		
Equities	6,725	7,917
Fixed interest	4,544	5,655
Other (including private equity, property, commodities, alternatives and inflation linked bonds)	5,147	5,868
Cash	2,922	1,616
Total UK investments	19,338	21,056
<i>Non-UK investments</i>		
Equities	15,236	15,895
Other (including private equity, property, commodities and alternatives)	5,755	5,716
Cash	495	916
Total Non-UK investments	21,486	22,527
Total	40,824	43,583
At 31 December 2018 no single shareholding exceeded 5% of the total value of investments (2017: none). Historical cost related to the closing position of 2017 was £31.76m (2017: £33.7m).		

10 DEBTORS		
	2018	2017
	£'000	£'000
Prepayments	2	3
Accrued income	9	20
Total	11	23



11 CASH		
	2018	2017
	£'000	£'000
Cash at bank	69	133

12 CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR		
	2018	2017
	£'000	£'000
Taxation and social security	3	3
Accruals	59	95
Total creditors falling due within one year	62	98

13 PROVISION FOR LIABILITIES AND CHARGES		
This represents a provision for future supplementary pension payments, in respect of ex-employees, based on their salary and length of service. The pensions are unfunded, with payments made out of the Institute's funds as they fall due.		
Movements in the pension provision during the year were as below		
	2018	2017
	£'000	£'000
Liability at beginning of period	160	168
Plus interest cost	8	8
Plus actuarial gains and losses	15	11
Benefits paid	(28)	(27)
Liability at end of period	155	160
The tables below state the FRS102 actuarial assumptions used to estimate the pension provision.		
<i>Principal actuarial assumptions</i>		
Valuation at 31 December 2018		
	2018	2017
Rate of increase to pensions in payment	3.0%	3.0%
Rate used to discount scheme liabilities	5.0%	5.0%
The post-retirement mortality assumption uses the PCA00 base tables (year of birth) with improvements equal to medium cohort with a 1% minimum.		

14 RELATED PARTY TRANSACTIONS	
There were no related party transactions in the year, other than those outlined in note 5 (2017: none).	

15 FINANCIAL INSTRUMENTS		
	2018	2017
	£'000	£'000
Carrying amount of financial asset debt instrument at amortised cost	9	20
Carrying amount of financial liabilities measured at amortised cost	110	95

16 MEMBERS' LIABILITY	
The liability of the Members of the institute is limited to 50p. At the date of the financial statements, there were 200 (2017: 197) members, each with a guarantee potential of 50p.	



