

## **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*

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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!

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## 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 cryptosporidiosis	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	2014
		£'000	£'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).

