



Press Release: The Royal Society of Edinburgh

New RSE Royal Medallists and Prize Winners Announced

The Royal Society of Edinburgh (RSE) is pleased to announce its Royal Medallists and Prize Winners for 2013.

The RSE President, Sir John Arbuthnott, in announcing the awards commented, "One of the greatest privileges of the role of being President of the Society is the opportunity to meet many of the most talented people working in Scotland today.

Through these awards we are recognising outstanding individuals at points in their lives from those showing great potential at early stages of their career to those who have reached the pinnacle of their discipline and are regarded as such on an international basis. The process of deciding upon these awards provides an opportunity for the RSE and hopefully the research community at home and internationally to learn more about the outstanding and innovative work that is being undertaken in Scotland."

He continued, "Since the inception of the RSE our core founding principle has been the "Advancement of Learning and Useful Knowledge". This programme of awards remains absolutely true to this principle.

The pinnacle of the RSE awards is our Royal Medals and I am delighted to be able to announce that the recipients this year will be, **Sir John Cadogan**, **Professor Michael Ferguson** and **Sir Ian Wood**. All three have made outstanding contributions, Sir John and Professor Ferguson in scientific excellence and Sir Ian for his role in building the Wood Group to be a multi-billion pound international enterprise, as well as his work in broader public life.

We are also delighted to award the James Clerk Maxwell Award in conjunction with the IEEE. This year's winners are, **Professors Richard Muller** and **Richard White** of the University of California, for pioneering innovation in micro-electro-mechanical systems technology

Major RSE prizes will also be awarded as follows: the Lord Kelvin Medal to **Professor Peter Davies** for his work in Fluid Mechanics; the Sir James Black Medal to both, **Professor Christopher Haslett** for his research into inflammation and for establishing the Queen's Medical Research Institute, and to **Professor Andrew Whiten** for his research into primates and animal behaviour; and the Sir

Walter Scott Medal to **Professor David Hewitt** for his work on The Edinburgh Edition of the Waverley Novels.”

Sir John concluded, “I wish to extend my congratulations to all of the 2013 Award Winners. Each of them is an inspiration.”

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Note to Editors: A full list of the 2013 is listed below. A note of the citation for each awardee follows at the end of the press release.

Royal Medals

Sir John Cadogan CBE FRS FRSE, President of the Learned Society of Wales.
Professor Michael Ferguson CBE FRS FRSE FMedSci, University of Dundee
Sir Ian Wood CBE FRSE, Chairman, John Wood Group PLC

RSE / IEEE Wolfson James Clerk Maxwell Medal

Professor Richard Muller, University of California
Professor Richard White, University of California

RSE Medals

Lord Kelvin Medal: Professor Peter Davies FRSE, University of Dundee
Sir James Black Medal: Professor Christopher Haslett OBE FRSE FMedSci, University of Edinburgh; and, Professor Andrew Whiten FRSE FBA, University of St. Andrews
Sir Walter Scott Medal: Professor David Hewitt FRSE, University of Aberdeen

Early Career Prize Winners

Patrick Neill Medal: Dr Marc Dweck, University of Edinburgh
Makdougall Brisbane Medal: Dr Aidan Robson, University of Glasgow
Thomas Reid Medal: Dr Gordon Pentland, University of Edinburgh
Henry Duncan Medal: Mr Neil McLennan, Aberdeen City Council

RSE Public Engagement Prizes, supported by the James Weir Foundation

Senior Prize: Professor Caroline Wilkinson, University of Dundee
Innovator’s Prize: Dr Chris Speed, Edinburgh College of Art

RSE Pro-Meritas Medal

Dr Russell Leather, Perth
Mr Angus Shearer, Edinburgh
Dr Alan Walker MBE, University of Edinburgh

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ROYAL MEDALS 2013

The Council of the Royal Society of Edinburgh has received the permission of Her Majesty The Queen to award three Royal Medals in 2013 to:-

Sir John Cadogan CBE FRS FRSE, Inaugural President of the Learned Society of Wales, for his outstanding contribution to Organic Chemistry through his research, discovery and invention, and the impact for wider academia of his work with the UK Research Councils and industry.

Professor Michael Ferguson CBE FRS FRSE FMedSci, Dean of Research, College of Life Sciences, University of Dundee, for his outstanding contribution to the field of Parasitology, his work in drug development to combat parasites, and for his leadership of a world class team of scientists in Dundee.

Sir Ian Wood CBE FRSE, Chairman John Wood Group PLC, for his outstanding contribution to business and commerce in Scotland through his leadership of the John Wood Group PLC, and his public service to Scotland in a variety of roles, and for his philanthropy.

Sir John Cadogan CBE FRS FRSE. Sir John Cadogan is highly distinguished for his research in organic chemistry and for his outstanding and varied contributions to industry and public service. He arrived in Scotland to take up the Purdie Chair of Chemistry at the University of St Andrews at the age of 32. He brought intellectual vigour, enthusiasm and an abundance of inspirational ideas and, by doing so, transformed the Department of Chemistry. He then moved six years later to the University of Edinburgh where he held the Forbes Chair of Organic Chemistry and stimulated major beneficial changes there in the research and teaching of chemistry.

Sir John was recognized for his research achievements at a young age. He received the Meldola Medal of the Royal Institute of Chemistry, which is awarded to the most promising British chemist under the age of 30. He was later awarded the Corday Morgan Medal and Prize of the Chemical Society, which is awarded to a British chemist under the age of 36 who has published the most distinguished research in experimental chemistry. He discovered a general synthetic chemical reaction now widely used and known as the Cadogan reaction. Sir John has published over 350 research papers and is still research active. He was President of the Royal Society of Chemistry from 1982 to 1984, and in 2010 was awarded its Lord Lewis Prize "In recognition of his distinguished research in organic chemistry and his wide ranging, distinctive and significant contributions in industry and public service."

After ten years at the University of Edinburgh, Sir John moved on to the challenges of industry and took up the post of Chief Scientist with British Petroleum. There he built up one of the best and most innovative research and development laboratories in Europe. In 1981 he became BP's first world wide Director of Research and initiated an impressive programme devoted to green issues, including championship of BP's solar photovoltaic business.

In 1994, Sir John became the first Director General of the UK Science Research Councils at the Office of Science and Technology - a post he held until 1998. He was responsible for making the case for Science receiving the largest percentage increase among all Government Departments in the first Comprehensive Spending Review for 1999-2001.

He has also served as Chairman of the Defence Advisory Council, the Defence Nuclear Reporting Committee and as Science Policy Adviser to the Science Foundation Ireland.

Sir John was elected a Fellow of the Royal Society of Edinburgh in 1964, serving as Vice President from 1977-80, and he became a Fellow of the Royal Society in 1976. He has received 20 Honorary Degrees and Fellowships. He was created a Commander of the British Empire in 1985 and in January 1991 he received a Knighthood. He has recently been elected as the Inaugural President of the Learned Society of Wales. This reflects his distinction and the great esteem in which he is held. He continues to devote a large part of his time to stimulating economic growth and fundamental work in chemistry, medicine and the biological sciences. He was Chairman of DNA Research Innovations Ltd until 2004 and has just stood down as Chairman of Fusion Antibodies Ltd.

It is for his outstanding contribution to Organic Chemistry through his research, discovery and invention, and the impact for wider academia of his work with the UK Research Councils and industry that Sir John Cadogan will be awarded an RSE Royal Medal.

Professor Michael A J Ferguson CBE FRS FRSE FMedSci. Michael Ferguson is world famous for his pioneering studies defining the structure and synthesis of surface glycoproteins in the protozoan organisms called trypanosomes which cause sleeping sickness. His early work led to his co-discovery of the glycosylphosphatidylinositol (GPI) membrane anchors. He and his collaborators characterized the structure of the GPI anchor from trypanosomes as well as structures of other GPI anchors from other parasites and higher organisms. Hence, Michael Ferguson's laboratory at the University of Dundee is internationally known for its leading contributions to defining our present understanding of the molecular architecture of the glycoproteins covering the cell surface of trypanosomatid parasites. This information is of crucial importance in understanding how these parasites can evade the host immune response and hence increase their pathogenicity.

During the past decade Michael Ferguson has concentrated much of his effort into defining and validating strategies for effective drug development to combat parasites such as trypanosomes which constitute a major health burden in much of the developing world. His long term vision for research activities has led to Michael Ferguson establishing a thriving facility for post genomics,

proteomics and molecular interaction studies at the University of Dundee. He has played a leading role in founding the innovative Drug Discovery Unit laboratories at the University which provide industry standard high-throughput chemical compound screening and medicinal, analytical and computational chemistry facilities.

Professor Ferguson, along with key colleagues in Dundee, also led the formation of the Drug Discovery for Tropical Diseases initiative which, in partnership with the Wellcome Trust, has the aim of translating outstanding basic research in molecular parasitology into pre-clinical drug candidates than can be developed for clinical trials. He believes in the fundamental importance of working across the biology/chemistry interface and in interdisciplinary research. He is particularly interested in Translational Research and is Director of the Dundee Proteomics Facility and is involved with the clinical biomarker discovery projects for toxicology, diabetes, colon cancer and liver disease.

Michael Ferguson was elected a Fellow of the Royal Society of Edinburgh in 1994 and the Royal Society in 2000. In 1999 he was elected a member of The European Molecular Biology Organisations (EMBO). He was awarded the C A Wright Medal of the British Society for Parasitology in 2006 and was elected a Fellow of The Academy of Medical Sciences in 2007. In 2008 he was made a Commander of the Order of the British Empire for his services to science.

To mark the Diamond Jubilee of Her Majesty The Queen, 12 new Regius Professorships were created. As a result Professor Ferguson became the first Regius Professor in Life Sciences at the University of Dundee in January 2013.

It is for his outstanding contribution to the field of Parasitology, his work in drug development to combat the parasites that cause sleeping sickness, and for his leadership of a world class team of scientists in Dundee that Professor Michael Ferguson will be awarded an RSE Royal Medal.

Sir Ian Wood CBE FRSE, Chairman John Wood Group PLC. Sir Ian Wood is one of the country's most distinguished and successful business leaders and enjoys the respect of both Scottish and UK Governments at the highest levels. After graduating from the University of Aberdeen in 1964 he joined the family business, John Wood & Son, a major fishing company in Aberdeen and became the Managing Director in 1967. Seeing the potential of the North Sea Oil business he started a small offshoot of the family business to service this rapidly growing market. Although the original family business is still one of the largest fishing companies in Scotland, the John Wood Group PLC has grown to become a major international oil services business with revenues of some \$6 billion and employing more than 41,000 people in over 50 countries.

In addition to growing and leading one of Scotland's most successful companies, Sir Ian Wood has made a significant contribution to public life both in Scotland and further afield. He was Chairman of Scottish Enterprise from 1997 to 2000 and Chairman of the British Trade International Oil and Gas Export Board. He sat on the Board of The Royal Bank of Scotland from 1988 to 1997 and was a

member of the Scottish Economic Council from 1988 to 1998. He was also a member of the Scottish Higher Education Funding Council from 1991 to 1997.

As well as his numerous public roles, Sir Ian became Chancellor of Robert Gordon University in 2004 and is a Patron and Chairman of various Charity and Fund-raising Appeals. In 2007, he established The Wood Family Trust which he continues to Chair. This is a Scottish-based charity currently investing £50 million in citizenship, tolerance and enterprise programmes for young people in the UK, and developing economic activity and employment in East Africa.

Sir Ian has received many awards and honours. In 1979, he was named Young Scottish Businessman of the Year and in December 1982 he was awarded a CBE. In 1985, he received the Scottish Free Enterprise Award and in 1994 he was awarded a Knighthood. He has received Honorary Degrees from the University of Aberdeen, Glasgow Caledonian University and Heriot-Watt University. In 2000 Sir Ian was elected a Fellow of the Royal Society of Edinburgh and two years later he received the Corporate Elite "Leader of the Year Award" from Business Insider and was admitted to the Entrepreneurial Exchange Hall of Fame.

It is for his outstanding contribution to business and commerce in Scotland through his leadership of the John Wood Group PLC, and his public service to Scotland in a variety of roles, and for his philanthropy that Sir Ian Wood will be awarded an RSE Royal Medal.

MAJOR RSE PRIZES 2012/13

The following Major Medals are to be presented in 2013:-

RSE/IEEE/Wolfson, James Clerk Maxwell Medal and Award

Professor Richard Muller, University of California, USA.

Professor Richard White, University of California, USA

Both for pioneering innovation and leadership in micro-electro-mechanical systems (MEMS) technology.

RSE/Lord Kelvin Medal to Professor Peter Davies FRSE, Professor of Fluid Dynamics, University of Dundee, for his outstanding contribution to the discipline of Fluid Mechanics, particularly Environmental Fluid Mechanics.

RSE/Sir James Black Medal - as there were two outstanding life sciences nominations for the Sir James Black Medal, it was agreed that, exceptionally, medals should be awarded to both:

Professor Christopher Haslett OBE FRSE FMedSci, Director of the Queen's Medical Research Institute and Sir John Crofton Professor of Respiratory Medicine, University of Edinburgh, for his outstanding contribution to inflammation research, the establishment of Scotland's first large-scale interdisciplinary translational medicine research institute and the development of a novel system for optical imaging of inflammatory processes in humans.

and to

Professor Andrew Whiten FRSE FBA, Professor of Evolutionary and Developmental Psychology and Wardlaw Professor of Psychology, University of St Andrews, for his outstanding contributions to making Scotland foremost in the UK in the study of primates and animal behaviour and to our understanding of the importance of a cultural “second inheritance system” in biology and the role it plays in conjunction with genetic inheritance and individual learning.

RSE/Sir Walter Scott Medal to Professor David Hewitt FRSE, Regius Chalmers Professor of English Literature at the University of Aberdeen, for his outstanding contribution to Scottish Literature through his work on The Edinburgh Edition of the Waverley Novels which was a monumental piece of literary scholarship over the past twenty-five years.

Early Career Prize-winners

RSE/Patrick Neill Medal to Dr Marc Dweck, British Heart Foundation Clinical Lecturer, University of Edinburgh, for his outstanding research work in the field of clinical cardiology and his innovative ways of engaging with the public to increase its understanding of this area of science.

RSE/Makdougall Brisbane Medal to Dr Aidan Robson, Lecturer in the School of Physics and Astronomy, University of Glasgow, for his breadth and depth of knowledge in his research field making him an excellent spokesperson and champion for particle physics and physics in general and his ongoing programme of schools’ outreach activities.

RSE/Thomas Reid Medal to Dr Gordon Pentland, Senior Lecturer in History at the University of Edinburgh, for his high quality research which contributes significantly to British and Scottish political and cultural history and his longstanding commitment to knowledge exchange.

RSE/Henry Duncan Medal to Mr Neil McLennan, Quality Improvement Officer (Education, Culture and Sport) at Aberdeen City Council and President of the Scottish Association of Teachers of History, for his outstanding contribution to civic society, creativity and social enterprise, education and the social sciences.

RSE Public Engagement Prizes, supported by the James Weir Foundation

Senior Prize to Professor Caroline Wilkinson, Professor of Cranial Identification at the University of Dundee, for her work in public engagement, which she has been involved in for over 15 years. Craniofacial identification is a cross-disciplinary subject with roots in art and science. The University of Dundee has twice recognised her work in public engagement activity through the Brian Cox Award in 2010 and the Stephen Fry Award in 2012. She has contributed on many occasions to TV shows such as Meet the Ancestors, Face of Britain and History Cold Case, using her craniofacial analysis as a program feature. Her work has been widely discussed on the internet, particularly her depiction of famous historical figures including Robert Burns and J.S. Bach. The work of Professor Wilkinson and her team has been exhibited in over 40 museums around the world.

Innovator's Prize to Dr Chris Speed, Reader in Architecture at Edinburgh College of Art, for his creative use of digital technology to enable members of the broader society to better understand their surroundings and history. Through the use of digital technology members of the public expand their ideas about time, space, history and objects, whilst increasing their knowledge of the technology. He was awarded the Principal's Medal at the University of Edinburgh in 2011 for his work in community engagement.

RSE Pro-Meritas Medals

These new medals recognise exceptional, voluntary service to the RSE by a non-Fellow and the first recipients will be:

Dr Russell Leather, formerly Chairman of the Gannochy Trust, for his role in the creation and award of the RSE Gannochy Innovation Award. Without Dr Leather's keen interest this prestigious award, which recognised and encouraged young Scottish entrepreneurs, would not have happened.

Mr Angus Shearer, for his able assistance to former RSE General Secretary, Dr Charles Waterston, over several years to produce detailed volumes giving biographical information about every deceased Fellow of the RSE. Bringing all this information together in two substantial volumes has given an invaluable reference source to deal with regular enquiries about former Fellows.

Dr Alan Walker MBE, for the key role that he played in creating the much admired Maxwell to Higgs exhibition. Without his contribution and enthusiasm, the exhibition could not have been created in the tight timescale involved. Dr Walker is very active in public engagement in particle physics and for this was awarded an MBE in the New Years Honours.

End of prize winners.