

The Royal Medals 2000

Life Sciences - **Professor Sir Kenneth Murray, FRS, FRSE**, has made an outstanding contribution to the development of Biotechnology, both nationally and internationally, through his development of what is now known as recombinant DNA technology. Sir Kenneth was responsible for the development of hepatitis vaccines, which have benefited public health world-wide. Sir Kenneth set up the Darwin Trust which has had a significant effect on research and education in natural science.

Physical and Engineering Sciences - **Professor Peter Higgs FRS, FRSE**, has had an enormous impact on the world of Physics. His work has provided a key to the problem of the origin of mass. Peter Higgs has proposed a mechanism for the generation of mass in relativistic field theories with a local symmetry, namely the Higgs boson. His work has been a crucial step towards a unified theory of the forces of Nature, and his single idea has had a huge impact on Man's understanding of Nature.

Humanities and Social Sciences - **The Rt. Hon The Lord Perry of Walton, OBE, FRS, FRSE**, has had an outstanding career in science and education. It is largely through his diligence, drive and enthusiasm that The Open University has developed into the huge educational success it is today. In 1969 Walter Perry had a staff of three; by 1981 he had two and a half thousand full-time, and five and a half thousand part-time tutors and administrators, with eighty thousand students and forty thousand graduates. Walter Perry has been instrumental in the development of similar institutions world-wide. The Open University is now the largest British university.

The Royal Medals 2001

Life Sciences - **Professor Sir James Black OM FRS Hon FRSE**, for his unique contribution to the advancement of Pharmacology and to the discovery of highly effective drugs which have revolutionised the treatment of disease and benefited untold numbers of patients throughout the world. Sir James' work led to the discovery of two blockbuster drugs in different fields. Firstly, the renowned " β -blocker" drugs which changed cardiovascular therapeutics beyond recognition. He also had great success in another therapeutic area with the development of cimetidine, which selectively blocks the effects of histamine on the stomach and heart with minimal toxicity. The design of these histamine H₂ receptor blockers revolutionised the therapy of the peptic ulcer.

Humanities and Social Sciences - **Professor Tom Devine FBA Hon MRIA FRSE**, for his outstanding contribution to Scottish History, particularly the relations between Scotland and Ireland. Professor Devine is a most distinguished academic historian who has shared his knowledge and insights through publications such as "The Scottish Nation" which was, undoubtedly, a publishing landmark of 1999.

Physical and Engineering Sciences - **Professor A Ian Scott FRS FRSE**, for his outstanding contributions to natural product and organic chemistry over the past thirty years. Among his many achievements has been the establishment of the mechanism for the synthesis of the key life pigments chlorophyll and heme. He has also done seminal work on the biosynthesis of Vitamin B₁₂, and on alkaloids and on the important anti-tumour agent taxol.

The Royal Medals 2002

Life Sciences - **Professor Sir Alfred Cuschieri FRSE**, for his outstanding contribution to the practice of medicine by pioneering developments in minimal access surgery. Sir Alfred's surgical techniques have been adopted world-wide and have greatly reduced the time patients spend in hospital. He is undoubtedly an international leader in his field.

Humanities and Social Sciences - **Professor Sir Alan Peacock FBA FRSE**, for his outstanding contributions to Social Science and Public Policy. He has achieved international distinction on a range of fiscal issues where he has enhanced our understanding of key problems in both taxation and public expenditure.

Physical and Engineering Sciences - **Professor John R Mallard OBE FRSE**, for his enormous contribution to medical diagnosis. He has pioneered the development of two of the most important diagnostic technologies of the 20th century, namely Nuclear Medicine and Nuclear Magnetic Resonance.

The Royal Medals 2003

Life Sciences - **Professor Sir Paul Nurse FRS HonFRSE**, for his outstanding contribution to genetics research, in particular its relevance to cancer, in which he has become a leading figure nationally and internationally culminating in the Nobel Prize in 2001.

Physical and Engineering Sciences - **Sir Michael Atiyah OM, FRS, HonFRSE**, for his profound and beneficial effect on the development of mathematics and science in the UK and Europe.

Humanities and Social Sciences – **Lord MacKay of Clashfern PC, KT, QC, FRSE**, for his outstanding contributions to Scots Law and his international reputation both in law and public service.

The Royal Medals 2004

Life Sciences - **Professor Sir Philip Cohen FRS, FRSE**, for his outstanding contribution to Life Sciences. Sir Philip's discoveries in the role of abnormal protein phosphorylation in major diseases, particularly diabetes, have led to the development of a new scientific investigation and also to the discovery of new therapeutic drugs.

Physical and Engineering Sciences – **Professor Robin Milner FRS, FRSE**, for his outstanding contributions to software engineering which have changed the face of modern computer science.

Humanities and Social Sciences – **Professor Sir D Neil McCormick FBA, FRSE**, for his outstanding contribution to academic life in Scotland and internationally, particularly in the field of legal philosophy.

The Royal Medals 2005

Life Sciences - **Professor William Hill OBE FRS FRSE**, for his outstanding contribution to Life Sciences and particularly to the theory of quantitative genetics and its applications to animal breeding.

Humanities and Social Sciences – **Professor Sir David Edward KCMG QC FRSE**, for his outstanding contribution to the legal profession in Scotland and internationally, particularly in the field of European Law.

The Royal Medals 2006

Life Sciences - **Sir David Jack CBE FRS FRSE**, formerly Research and Development Director, Glaxo Holdings London, for his outstanding contribution to the pharmaceutical industry and his untiring work and contributions to scientific organisations concerned with drug design and development.

Physical and Engineering Sciences – **Professor Sir John Ball FRS FRSE**, Mathematical Institute, University of Oxford, for his outstanding contributions to applied mathematics and his public service to the international mathematics community.

The Royal Medals 2007

Life Sciences - **Professor Sir David Carter FRSE**, formerly Chairman of the Board of Academic Medicine (Scotland), for his outstanding contributions to Life Sciences as a Surgeon, a clinical academic and an outspoken leader in the field both nationally and internationally.

Business and Commerce - **Sir Thomas McKillop FRS FRSE**, Chairman, Royal Bank of Scotland, for his outstanding contribution to business and public service in Scotland and internationally, particularly in the fields of biotechnology and finance.

Arts and Humanities - **Professor John Laver CBE FBA FRSA FRSE**, Professor Emeritus of Speech Sciences and former Vice Principal, Queen Margaret University, Edinburgh, for his outstanding contributions to Humanities and Social Sciences, particularly in the field of phonetics, and his inspired academic leadership.

The Royal Medals 2008

Life Sciences - **Professor Sir David Lane FRS FRSE**, for his outstanding contribution to cancer research through his discovery of P53 tumor suppressor gene.

Physical Sciences – **Professor Roger Fletcher FRS FRSE**, for his outstanding contribution to mathematics and software development.

Arts and Humanities – **Rt Revd Richard Holloway FRSE**, for his outstanding contribution to the cultural life of Scotland through his public debates on ethics and theology and by promoting, and direct involvement in, public policy issues.

The Royal Medals 2009

Life Sciences – **Professor Karen Vousden FRS FRSE**, Director, The Beatson Institute for Cancer Research, for her outstanding contribution to cancer research through her major discoveries in the area of mechanisms of oncogenesis, tumour suppressor genes and cell cycle control.

Physical and Engineering Sciences – **Professor Wilson Sibbett CBE FRS FRSE**, Wardlaw Professor of Physics, University of St Andrews, for his outstanding contributions to physics in Scotland and public service through his Chairmanship of the Scottish Science Advisory Committee.

Humanities and Social Sciences – **Professor Sir James Mirrlees FBA HonFRSE**, Emeritus Professor of Economy, University of Cambridge, for his outstanding contribution to economic theory which has had a global impact on economic development.

The Royal Medals 2010

Physical and Engineering Sciences - **Professor Sir Fraser Stoddart FRS HonFRSE**, Department of Chemistry, North Western University, Chicago, USA, for his outstanding contribution to chemistry and particularly in the field of molecular nanotechnology.

Humanities and Social Sciences - **Dr James MacMillan CBE FRSE**, freelance composer, for his outstanding contribution to music in Scotland and beyond through his compositions.

The Royal Medals 2011

Life Sciences – **Professor Noreen Murray CBE FRS FRSE**, Professor of Molecular Genetics in the Institute of Cell Biology, University of Edinburgh, for her outstanding contribution to our understanding of bacterial host defence systems and her leading role in the development of gene cloning technology, influencing the course of biological research worldwide.

Physical and Engineering Sciences - **Professor S Desmond Smith OBE FRS FRSE**, Founder, Chairman and Chief Scientific Officer, Edinburgh Instruments Ltd, for his outstanding contribution to physics research, especially in optoelectronics, spectroscopy and laser technology together with its application in industry and research technology.

Arts, Humanities and Social Sciences – **Baroness Helena Kennedy of the Shaws QC**, human rights lawyer, for her outstanding contribution to human rights and civil liberties, access to education, arts and ethics.

The Royal Medals 2012

Life Sciences – **Sir Edwin M Southern FRS HonFRSE**, Emeritus Whitley Professor of Biochemistry, University of Oxford, for his outstanding contribution to molecular biology from which technologies have been developed that are still in worldwide use today:- genomic fingerprinting; DNA-based antenatal diagnosis based on his Southern Blot; and his method for synthesizing DNA on glass for the production of nucleic acid microarrays.

Physical and Engineering Sciences - **Dr A David Milne OBE FRSE**, former Director of Wolfson Microelectronics plc, Edinburgh, for his outstanding contribution to business and commerce in Scotland through his founding, growth and leadership of Wolfson Microelectronics plc, a highly successful semiconductor company with a world wide customer base.

The Royal Medals 2013

Life Sciences – **Professor Michael A J Ferguson CBE FRS FRSE FMedSci**, Dean of Research, College of Life Sciences, University of Dundee, for his outstanding contribution to the field of Parasitology through his pioneering studies of surface glycoproteins in the protozoan organisms which cause sleeping sickness, for his work in defining and validating strategies for effective drug development to combat such parasites, and for his leadership of a world class team of scientists in Dundee.

Physical Sciences – **Sir John Cadogan CBE FRS FRSE**, Chairman of Fusion Ltd and Inaugural President of the Learned Society of Wales, for his outstanding contribution to the field of Organic Chemistry through his research, discovery and invention leading to his influence in wider academia through his work with the UK Research Councils and industry.

Business, Commerce and Public Service – **Sir Ian Wood CBE FRSE**, Chairman John Wood Group PLC, for his outstanding contribution to business and commerce in Scotland through his development, growth and leadership of the John Wood Group PLC, a major international oil services business based in Aberdeen.

The Royal Medals 2014

Life Sciences – **Professor Richard G M Morris CBE FRS FRSE FMedSci**, Royal Society/Wolfson Professor of Neuroscience, University of Edinburgh, for his outstanding contribution to the field of neuroscience through his pioneering work on the identification of the synaptic basis of learning and memory in the mammalian brain, which has raised the possibility of treatments to stem the global epidemic of dementia and cognitive decline.

Physical Sciences – **Professor Thomas W B Kibble CBE FRS**, Emeritus Professor of Theoretical Physics, Imperial College, for his outstanding contribution to the field of theoretical physics through his research and discovery, with others, of the mechanism that gives mass to elementary particles and which, in so doing, paved the way for unification of the weak and electromagnetic forces.

No Royal Medals were awarded in 2015

The Royal Medals 2016

Physical Sciences – **Professor James Hough OBE FRS FRSE**, Research Professor, University of Glasgow and former Director of the Institute of Gravitational Research, for his outstanding contribution to physics and astronomy through his work on the detection of gravitational waves.

Business, Public Service and Public Engagement – **Professor Sir Angus Deaton FBA HonFRSE**, Noble Laureate in Economic Sciences 2015, Dwight D Eisenhower Professor of International Affairs and Professor of Economics and International Affairs, Princeton University, for his outstanding contribution to economic sciences.