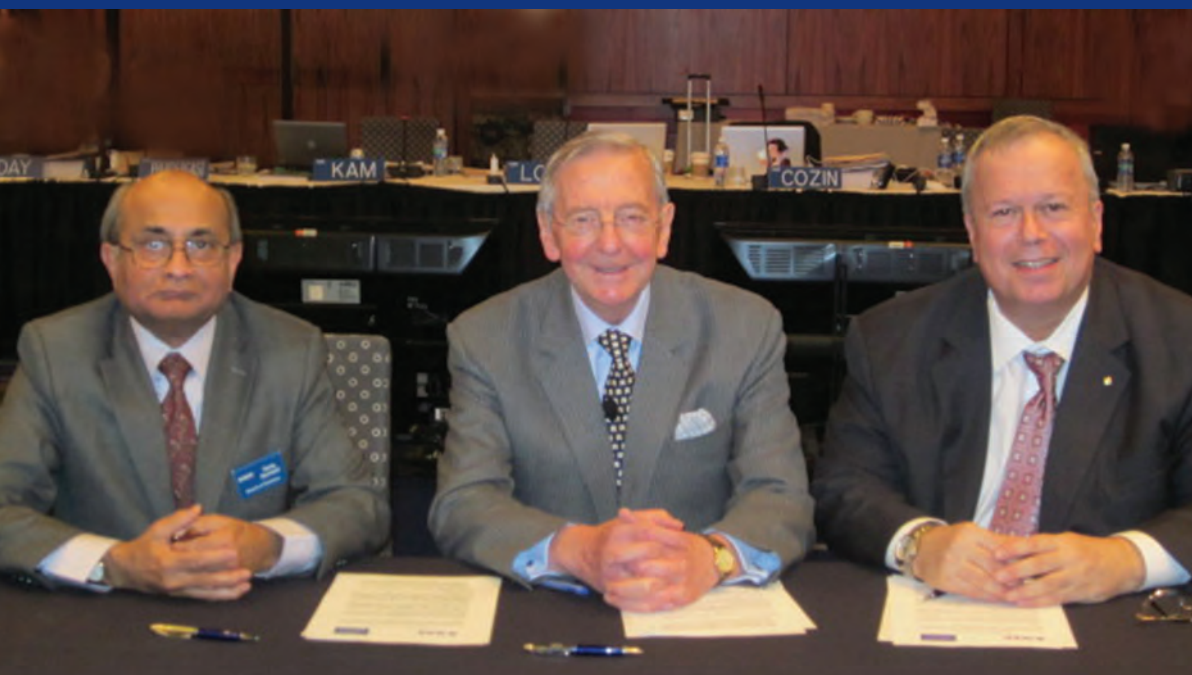




RESOURCE

THE NEWSLETTER OF SCOTLAND'S NATIONAL ACADEMY



RSE SIGNS AGREEMENT WITH THE IEEE

RSE President, Sir John Arbuthnott, attended the IEEE Board of Directors meeting in the USA on 20 November. During his visit a Memorandum of Understanding was agreed, to encourage even closer links between the two bodies. The IEEE is the world's largest professional organisation.

Pictured with Sir John (centre) are Professor Tariq Durrani FRSE (left), who is also Vice-President of the IEEE and Moshe Kam, President and CEO of the IEEE.



Launch of the RSE Young Academy of Scotland



Royal Scottish Society of Arts gifts engraving to RSE



Chief Scientific Adviser presents new RSE Prize

The RSE Young Academy of Scotland

Launch of the RSE Young Academy of Scotland

The RSE Young Academy of Scotland was launched at the Society on 29 November 2011. This was the first time that the 68-strong membership had been brought together and the opportunity was taken for a formal pose in the RSE Reception Hall with RSE President, Sir John Arbuthnott (centre front), General Secretary, Professor Alice Brown (front right) and past President, Lord Wilson of Tillyorn (on right, behind Professor Brown).

Following a formal welcome from the President and the General Secretary, the new members took part in a debate on *Major Challenges: Radical Solutions*.

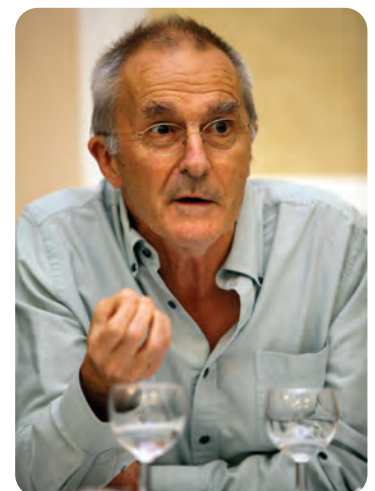


Broadcaster and journalist, Kenneth Roy, (above right) facilitated the day and chaired the debate. The members later heard from the Chief Scientific Adviser for Scotland, Professor Anne Glover.



Discussion was led by the Director of Liberty, Shami Chakrabarti, (left) who spoke on *The Future of Society*, and the well-known geneticist, Professor Steve Jones (right), who discussed the question *Where will Science take us?*

Shami Chakrabarti, said: "*The Young Academy is a wonderful way to engage some of Scotland's brightest young talents with each other, wider society and the various challenges of the next few decades. It is wonderful to be a guest at the birth of this new initiative. I wish it every success for the future.*"



Photographs by Gary Doak

Launch Event – November 2011

Professor Wilson Sibbett, (right), RSE Vice-President (Physical Sciences) commented, *"It was good to see the energy and vitality of the younger generation as they took a "shared ownership" of the RSE. I have every expectation that the Young Academy members will bring a new, and very positive, dimension to the RSE."*



Dr Martyn Pickersgill of the Young Academy added, *"the launch was a very enjoyable and stimulating event – it was a great way of kick-starting this new organisation, and I'm really excited about how it will develop."*

Dr Pickersgill is pictured (left) being welcomed to the Young Academy by RSE President, Sir John Arbuthnott.

Another member, Chris O'Sullivan, (pictured right, taking notes during the debate), said, *"with its support, the RSE is empowering the Young Academy members to shape a new organisation from the ground up. This is a huge opportunity, responsibility and challenge, and one I think everyone relishes."*



Members of the Young Academy, pictured on opposite page and above, participating in the debate, Dr Francisca Mutapi (above left, centre) and Dr Elham Kashefi (right, centre).



New member, Dr Will 'Wenmiao' Shu is pictured signing the new Young Academy roll book.



A reception took place following the debate, at which there was further opportunity to network and meet RSE Fellows and staff members. Pictured above left are members (l-r) Professor Graeme Malcolm, Neil McLennan and Des Bamforth. Above right, members, Dr Ineke de Moortel (left) and Peter Reekie (2nd right) talk with Professor Anne Glover and Professor Alan Miller, RSE Fellowship Secretary.

For more details about the Young Academy and a full list of members, visit the RSE website – www.royalsoced.org.uk. A short report, highlighting the key issues from the debate will be available in due course.

Research Awards and Prizes



Report on RSE Arts & Humanities Programme

The eminent physicist, Professor Sir John Enderby CBE FRS, (pictured left) delivered an independent evaluation of the RSE's Arts & Humanities Grant Programme at the end of October 2011. The report shows the programme to be highly effective and contributing to many of the Scottish Government National Outcomes. The report is produced against the backdrop of pressures on public expenditure, including the Scottish Government grant that funds this programme.

In presenting the report to the RSE, Sir John commented, "*Having chaired this review group I have been impressed by the range and quality of research and connections between academics that has been made possible by a relatively limited amount of money. This I am sure will have enabled projects to be completed that will add to the understanding of Scotland's cultural richness, both historically and in the current day.*"

The full report by Dr Alison Graham is available on the Society website at: www.royalsoced.org.uk/cms/files/research_awards/a_h/enderby_ah_report.pdf

RSE Awards currently available

BP Personal Research Fellowship

Tenable for up to five years in Scottish Higher Education Institutions, for independent research in: Mechanical Engineering, Chemical Engineering, Control Engineering, Solid State Sciences, Information Technology, Chemistry (non-biological), Geological Sciences.

Closing date: 10 January 2012

For full details and to download application forms, go to the RSE website at: www.royalsoced.org.uk/635_AvailableNow.html

CRF Biomedical Personal Research Fellowship

Tenable for up to three years in Scottish Higher Education Institutions, for research in the biological, biochemical, physical or clinical sciences related to medicine.

Closing date: 27 February 2012

The RSE BP Hutton Prize in Energy Innovation

The RSE is delighted to announce that Dr David Wright, who is based within the School of Geosciences, University of Edinburgh, has been awarded the first RSE/BP Hutton Prize in Energy Innovation, for his research entitled *The detection of oil and gas from surface-based electromagnetic measurements*.

The Prize, funded by the BP Trust, and carrying a prize of £10,000, is made on a biennial basis by the Council of the Royal Society of Edinburgh, to an individual early-career researcher based in Scotland, who has shown "a significant individual contribution to energy innovation through research and knowledge exchange".

The Prize is named in honour of James Hutton, an eminent Scottish Geologist and a Founding Fellow of the Royal Society of Edinburgh. His most important contribution to science was his *Theory of the Earth* (1785); for this theory Hutton earned the accolade, 'father of modern geology'.

During the data analysis David carried out as part of his PhD, he made a breakthrough which has resulted in the development of an innovative method for the detection of oil and gas reserves both on and offshore.

The next round of nominations for the RSE/BP Hutton Prize in Energy Innovation will be in 2013.



Dr Wright (right) is pictured at the Science and the Parliament event in November 2011 with David Lynch, VP Resources, BP

David was also one of the three founders of the University of Edinburgh spin-out company MTEM Ltd. In 2007, MTEM Ltd was bought by Petroleum Geo-Services for £137 million, which is the most paid by a trade buyer in this sector outside the US, and the second highest sum ever paid for an early-stage technology company in this sector. The University of Edinburgh received approximately £8.6 million, £2.6 million of which was set aside to fund 164 PhD studentships.

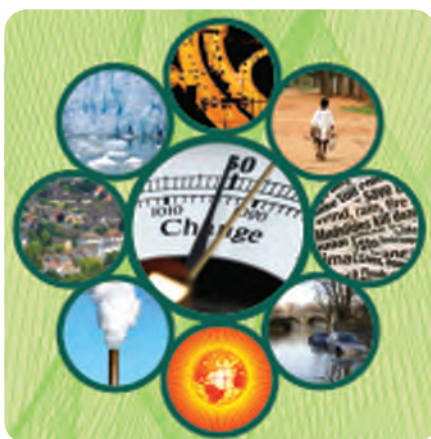
David plans to use the money he receives from the RSE/BP Hutton Prize in Energy Innovation, to fund up to three student internships to enable promising students from anywhere in the world to come to Edinburgh and carry out original research within his group. These students may be recent BSc, MSc or PhD graduates. The projects would be designed to focus on a specific area of the MTEM technique where an innovative development could result in a valuable advance in the application of the method.

Advice and Briefing Papers

The RSE calls for the Scottish Government to lead the development of a strategic digital infrastructure in Scotland

The RSE has responded to the Scottish Parliament Infrastructure Committee's call for views on broadband infrastructure in Scotland, highlighting the recommendations of the Society's Digital Scotland Report (2010). This submission was made ahead of Professor Michael Fourman's appearance before the Committee on 7 December. The RSE's response made the following key points:

- An internationally competitive digital infrastructure is critical to sustainability, economic success, and social and cultural well-being over the coming decades. The Scottish Government should establish an open backhaul network reaching every community in Scotland.
 - Because of Scotland's dispersed population and its geographical location, its need for a good telecommunications infrastructure is greater than that of many other countries in Europe. It lags behind key competitors in providing such an infrastructure, and their lead is increasing.
 - The crucial problem is lack of a pervasive and accessible fibre backbone. A fibre backbone network is necessary to enable the delivery of mobile and fixed connectivity at the 'next-generation' speeds that our leading competitors already have in place.
- If the provision of broadband is left to the current 'vertical' organisation of national internet service providers (ISPs) that provide both consumer service and the national infrastructure, there will be few incentives to develop that backbone. Furthermore, where it is developed by vertical organisations, economic pressures lead them to exclude others who might otherwise share this core infrastructure.
 - The way to maximise economic and social benefit is to develop an 'open access' backbone that will support the communication needs of government, health services and education; and will enable a variety of organisations – including small businesses, community enterprises and local authorities – to innovate and compete to provide local distribution and services.
 - Other countries have built open access national networks, and there is ample evidence that Scotland has the enterprise and talent to develop local distribution.
 - It is essential that there is co-ordination to develop this network independently of the services it will support. The current 'vertical' system, in which various agencies (Government, Health, Education, ...) independently procure connectivity along with the services they require, is both wasteful and detrimental to innovation.



Facing up to Climate Change: Breaking the Barriers to a Low-Carbon Scotland

The last in a series of follow-up events to the RSE's Inquiry on Climate Change took place in Inverness on Wednesday 30 November. These events have stimulated good discussion on the report's recommendations with a number of sectors, and across Scotland.

Working with a range of partners including SCVO, SCDI and The James Hutton Institute, events have focused on some key areas arising in the report: Community Renewables Initiatives (Carnoustie); Sustainable Cities (Glasgow); Land Use (Aberdeen); and Skills for a Low-Carbon Future (Inverness).

In addition, Lord Adair Turner, Chairman of the UK Committee on Climate Change, spoke at a lively discussion seminar at the RSE in Edinburgh on 26 September. Read the Summary Report on the website at: www.royalsoced.org.uk/928_September2011.html

For full details about these Advice and Briefing Papers and others, visit the RSE website at: www.royalsoced.org.uk/293_AdviceBriefingPapers.html

International

INTERNATIONAL EXCHANGE PROGRAMME

One of the main purposes of the RSE International Programme is to award short-term travel grants to enable Scottish researchers to establish links with colleagues in other countries with a view to a long-lasting collaboration, through joint publications and joint applications for longer-term funds.

The RSE also supports longer-term collaborations through the Joint Project Scheme with the National Natural Science Foundation of China, which facilitates longer-term international collaboration between researchers based in Scotland and China by providing two years'-worth of funding.

International Funding Opportunities for Fellows and non-Fellows

Deadlines

RSE-NSFC Joint Projects:
Friday 13 January 2012

International Exchange Programme:
Tuesday 31 January 2012

For full details and application forms visit:

www.royalsoced.org.uk

RSE-NSFC Workshop on Emerging Directions in Image Processing and Understanding

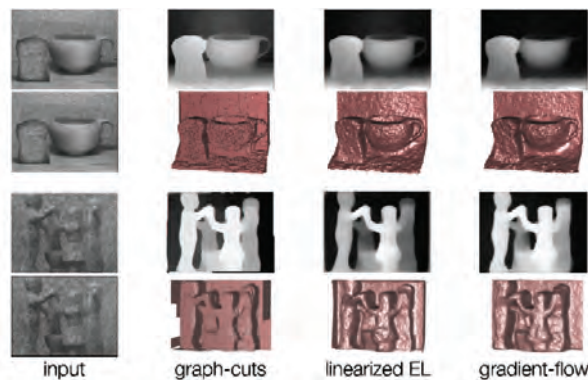
The RSE and the National Natural Science Foundation of China (NSFC) have a formal agreement, established to support research collaborations between Scotland and China. Under the terms of this agreement, the RSE and NSFC organised a workshop in October 2011 in China in the area of Image Processing and Understanding.

A delegation of six leading researchers in the area of image processing and understanding attended from Scotland to meet with their Chinese counterparts, present their work and explore future opportunities for collaboration between Scotland and China.

The Scottish universities represented were Edinburgh, Strathclyde, Stirling, Heriot-Watt and Dundee. The Chinese organisations included Beijing Jiaotong University, Peking University, the Institute of Computing Technology and the Institute of Automation, the Chinese Academy of Sciences, and Sun Yat-sen University.

Topics covered during the workshop included advanced video processing, video copy detection, 3D reconstruction and imaging, face recognition technology and speech enhancement technology.

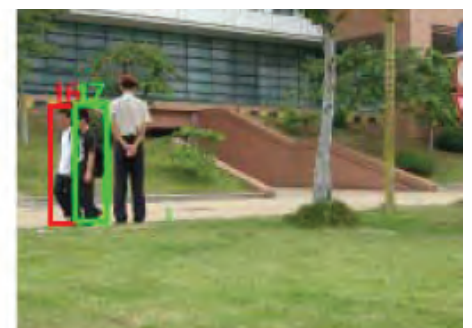
As a follow-on to the workshop, the RSE and NSFC are now offering funding, through the Joint Project Scheme, to support two-year joint research projects in the area of image processing.



3D reconstruction from two defocused images (Favaro);



3D imaging for skin cancer analysis (Fisher)



Person identification using surveillance footage (Zheng & Lai)

Case Studies

Scottish-based host: Professor Kenneth Gibb, University of Glasgow

Overseas visitor: Assistant Professor Oliver Shyr, National Cheng Kung University, Taiwan

The mission of the visit was threefold: 1) to set up a formal collaboration relationship between the School of Social and Political Sciences in the University of Glasgow and the College of Design and Planning in the National Cheng Kung University; 2) to initiate student and faculty visits for collaborative research and teaching programmes between the subject area of Urban Studies and the Department of Urban Planning in the two universities; and 3) to learn the general lessons and practices of urban regeneration on brown field sites and green transport policy in the Glasgow metropolitan area. All the missions are now completed, with the delivery of a draft Memorandum of Understanding (to be signed with the Glasgow Deputy Principal in Tainan in the Autumn), a proposal for future urban collaboration programmes between the parties, and a report on the lessons learned from the practices of urban regeneration and strategies of green transport.

The outcomes of the visit are far beyond expectations in two aspects: 1) a solid proposal for the collaboration in teaching and research has been delivered to be realised by the end of this year; 2) the material and relevant reports received during and after the meetings with the practitioners of urban regeneration and the city planners of transport authorities turned out to be much better than expected, in terms of both their quality and their quantity.

Several joint research topics, such as urban regeneration, social housing policy and sustainable transport strategies, have been identified during the discussion between the host and the visitor. Also, the host will take up an invitation to visit Taiwan to give lectures on related topics in 2012.



Dr Shyr is pictured visiting Glasgow (Cranworth Street in Hillhead, close to the Urban Studies building in Bute Gardens at the University of Glasgow)

Scottish-based host: Professor David Perrett FBA FRSE, University of St Andrews

Overseas visitor: Dr Dariusz Danel, Institute of Anthropology, The Polish Academy of Sciences

The purpose of the visit was to construct an experiment to investigate strategies used by individuals in choosing the attractiveness of best friends.



The male and female images show faces changing in attractiveness. Images like these are constructed with computer graphics and are being used to define how one's own appearance relates to the characteristics chosen for a best friend or a potential partner.

Experiments were implemented to test participants across the web; and sexual selection theory (in particular intra-sexual competition) was developed, to provide a framework for interpreting results.

To date, psychology has focused on the desirability of characteristics of opposite-sex partners, yet for heterosexual individuals choosing same-sex friends may enhance or detract from chances in finding a suitable mate (e.g. an individual may lose out to his/her friends if the friends are more attractive than that individual).

Computer graphics were used to construct face continua varying in attractiveness. From these, participants chose an ideal appearance for a same-sex friend. The hypothesis is that participants will match their own attractiveness to that of virtual best friends, since this strategy will minimise intra-sexual competition.

Dr Kevin Smith, Edinburgh Napier University

Visited: Dr Tony Magliocco, Tom Baker Cancer Centre, Canada

One outcome of the body's response to stresses such as breast cancer is a change in populations of molecules called proteins, which are present in the blood. Many of these proteins have sugar chains attached (known as glycosylation) that not only ensure that the protein is able to "work" properly, but are also capable of being structurally altered in specific diseases. The plasma glycoprotein, alpha-1-acid glycoprotein (AGP) is produced in greater amounts in patients with breast cancer; however, there has been no work to determine whether the structures of the sugar chains are also altered in a unique manner. The awardee seeks to investigate whether any differences in the sugar chains of AGP in people with breast cancer could be used to identify the onset and/or progression of the disease. The visit to Dr Magliocco's laboratory was extremely beneficial to this research.

Schools' Events @ RSE

RSE@ Schools Talks

Each year the Royal Society of Edinburgh delivers a series of talks and lectures in schools across Scotland. These talks are curriculum-linked and available at any point throughout the school year. The speakers, including many of our Fellows, are experts in their fields and cover a range of subject areas, from Science to English Literature to Art and History and they speak to students from P7 to S6.

The talks are free for schools, and all the RSE asks in return is a willing audience – something that is never difficult to find! The latest Schools talk was delivered by Dr Pauline MacKay (pictured), from the University of Glasgow, to Auchmuty High School in Glenrothes.

Dr Pauline MacKay discusses the RSE@Schools talks

Q: *Would you mind telling us a bit about your background, and why you decided to become an RSE @Schools speaker?*

A: I was initially invited by the Royal Society of Edinburgh to deliver talks to schools on the main focus of my research: Robert Burns.

As a high school student, I thoroughly enjoyed studying Burns, and so I was delighted when I discovered that I could study Scottish Literature at University. After being awarded an undergraduate degree in Scottish Literature at the University of Glasgow, I went on to make Burns the focus of an MPhil research thesis, as well as my PhD. Following the Homecoming celebrations of 2009, which coincided with the 250th anniversary of the poet's birth, there was an upsurge in general and scholarly interest in the National Bard. Since then I have had the opportunity to work on a number of Burns-related research projects examining everything from the memorialisation of Robert Burns in material culture (Robert Burns: Inventing Tradition and Securing Memory, 1796–1909) to the poet's literary canon (Editing Robert Burns for the 21st Century).



It is, however, important to understand the Bard in the wider context of Scotland's rich literary and song culture. And so, my research interests extend beyond Burns to the wider Scottish literary canon, and to European Romantic literature more generally.

I am delighted to be a speaker for the RSE @ Schools programme, and relish the opportunity to share some of the exciting research into Scottish Literature and Robert Burns Studies that is being undertaken in the 21st Century, to offer a fresh perspective on the literature that students study at high school, and to encourage them to read further and to seek a better understanding of Scotland's cultural legacy.

Q: *What did you discuss at your recent visit to Auchmuty High School?*

A: During my recent visit to Auchmuty High School, I spoke to students at different stages in secondary education about two significant Scottish Literary figures, with particular reference to works that they had been studying in preparation for their exams: James Hogg (1770–1835), *The Private Memoirs and Confessions of a Justified Sinner* (1824), and Robin Jenkins (1912–2005), *The Changeling* (1958).



Young people celebrating at a Burns supper in Falkirk in 2009



Q: *What are the main challenges when speaking to schools and what element do you most enjoy?*

A: Perhaps the most challenging aspect of delivering talks to schools is remaining very aware of your audience. You need to be able to present your topic in such a way that it will be informative and stimulating for a young audience, while still communicating the main concepts and outcomes of your research. In fact, it is my experience that this is an extremely useful exercise, insofar as it sometimes forces me to clarify woolly concepts in my own mind. High school students are often very honest in their response to the ideas and questions that I put to them. I enjoy their fresh perspective and I am always encouraged by their enthusiasm.

Q: *What are the benefits to schools?*

A: The RSE @ Schools programme brings secondary school children up to date with the major research being undertaken in Scotland today. It helps to broaden young minds and gives students the opportunity to converse with researchers and professionals out with the school system; individuals who can offer slightly different perspectives on what is studied as part of, and beyond, the school curriculum (where this is useful), and who can offer advice and encouragement to students who are beginning to form their own individual career plans.

To find out more about events in the RSE Schools' Programme, contact: Maggie Twomey, RSE Events Officer, mtwomey@royalsoced.org.uk phone 0131 240 5035 or visit the RSE website at: www.royalsoced.org.uk/440_Schools.html

Events @ RSE

**Monday 13 February 2012
at 6 pm**

ECRR PETER WILSON LECTURE

Appliance of Science in the Rural Sector of Scotland

Professor Iain J Gordon, Chief Executive,
The James Hutton Institute



Managing land's resources sustainably is essential to ensure the continuing availability of Ecosystems Services. Climate change, market fluctuations and Common Agricultural Policy reforms influence land management decisions and thus shape how land is used. Professor Gordon will outline how, working in close partnership with the rural sector, scientists can help inform how land is used. Through effective engagement, the development of new innovations and collaborative learning, scientists and the rural sector can ensure the future environmental quality and economic prosperity of our land.



**Wednesday 2 May 2012
at 6 pm**

**AN EVENING WITH
DIARMID MACCULLOCH**



Professor Diarmaid MacCulloch DD FBA FRHistS FSA, Professor of the History of the Church at Oxford, Fellow of St Cross College, Oxford, and prize-winning author, has written extensively on the sixteenth Century and beyond it. His *History of Christianity: the first three thousand years* (Penguin Press), and the BBC TV series based on it, first appeared in 2009. His series *The English: How God Made Them* for BBC2 is due for showing shortly.

The event will provide an opportunity to meet with Professor MacCulloch, the distinguished historian of Christianity and the University of Edinburgh Gifford Lecturer for 2011–2012, and to discuss with him in a relaxed manner some of the themes of his Gifford Lecture Series, e.g. *'Holmes' Dog: Silence in the History of the Church*, (which will be taking place at the University of Edinburgh between 23 April and 3 May 2012). There will also be an opportunity to engage more widely with his many writings and his recent television documentary on the history of Christianity.

**Monday 26 March 2012 at 6 pm
LECTURE**

Extreme Engineering

Mr Ivor Tiefenbrun MBE, Executive Chairman, Linn Products Ltd

Man is a tool-making animal. Making things is a fundamental aspect of human expression which is essential for our development and survival. The people who make the tools, who integrate our science, technology and skills, set the standards for our society and are essential to our quality of life and fulfilling our hopes and expectations. They are called engineers.



Yet the importance of engineers and engineering is not understood. There is no Nobel Prize for engineering.

This lecture will focus on the most competitive activity of manufacturing to help people understand its challenges, importance, excitement and rewards.

This is a joint lecture with the Royal Academy of Engineering

To book tickets go online at: www.royalsoced.org.uk or phone the events ticket line: 0131 240 2780. For further information on all RSE events, visit www.royalsoced.org.uk or contact: events@royalsoced.org.uk

TICKETS ARE REQUIRED FOR ALL RSE EVENTS – RSE Lectures and Discussion Forums are open to all and normally free to attend* but registration is required. To register please contact the Events Team. Please note that many RSE events run to full capacity. If you book a place at any event but are unable to attend, please inform the RSE Events Department so that your place can be reallocated.

***some events may carry a charge to attend; please see individual events for registration details.**

Fellow @ work

Corresponding Fellow, Professor Norman Lewis (right) talks about \$40 million award on sustainable bioenergy ...

Professor Lewis, who was elected a Corresponding Fellow of the RSE earlier this year, has been heavily involved as co-leader of the project which led to this award in an area which represents a worldwide issue and challenge ...

USDA makes \$40 million award to ASPB member to develop biofuels from sustainable lumber stocks – Washington State’s Norman Lewis leads Northwest Advanced Renewables Alliance

The US Department of Agriculture (USDA) has made two \$40 million consortia grants to Washington State institutions to use sustainable woody biomass in the Pacific Northwest to produce biofuels for aviation and other petrochemical uses. One award, led by American Society of Plant Biologists (ASPB) member Norman Lewis and Michael Wolcott of Washington State University, will support the Northwest Advanced Renewables Alliance (NARA). NARA is a collaborative effort among university, government and industry scientists to seek to produce domestic aviation fuel using wood that is either developed for this purpose, typically burned in forests after harvest, removed during thinning to improve forest health, or ends up in landfills as waste from building demolitions and other sources.

One aspect of the award in support of NARA that has particular relevance to plant biology is the alliance’s intention to utilize the most recent technologies and scientific approaches to help overcome long-standing issues in using woody biomass for biofuels production. NARA’s approach, in part, will use the

most advanced genomic technologies, as well as phenomics, to identify the most promising sources of biofuels from tree lines that are currently available (e.g., Douglas fir, western hemlock, poplar and red alder). The five-year award has four main deliverable components: feedstock development; sustainable feedstock production; logistics; and conversion and refining to reach these goals.

In addition, a significant effort will be made to learn how to break down lignin more effectively. As one of the major components of wood, lignin acts as glue that holds together the components of plant cell walls and provides wood with its strength. However, lignin is difficult to break down and reduces the bioavailability of other cell wall components, resulting in a technical barrier to the use of woody materials in biofuel production.

"We believe we can begin to resolve the issues that have prevented wood-based biofuels and other petrochemical substitutes from being economically viable



with some new strategies and the diversity of skills represented on the NARA team," said Lewis. "If we are successful, the potential to begin to replace the natural resources jobs lost in the region over the past several years is very high."

Lewis is Regents Professor and director of Washington State University’s Institute of Biological Chemistry and a member of Scotland’s National Academy of Science and Letters. He currently serves on ASPB’s Public Affairs Committee and formerly was a monitoring editor for Plant Physiology.

Extract from press release issued by the American Society of Plant Biologists (ASPB) in October 2011.

FRIENDS OF THE SOCIETY

CORPORATE PARTNERS OF THE ROYAL SOCIETY OF EDINBURGH



If you would like to know more about the Royal Society of Edinburgh’s Friends of the Society initiative, or if your organisation may be interested in joining the scheme, please contact: **Gordon Adam**, Director of Business Development and Communications, – 0131 240 2781 – gadam@royalsoced.org.uk

Fellows' Notice Board

FELLOWS HONOURED

The RSE offers its congratulations to the following Fellows, who have been honoured in various ways:

Professor Anne Glover CBE has been appointed the European Commission's first Chief Scientific Adviser. She has served as Chief Scientific Adviser for Scotland since August 2006 and her term of office ends in December 2011. Professor Glover holds a Personal Chair in Molecular and Cell Biology at the University of Aberdeen, and has honorary positions at the Rowett and Macaulay Institutes. She is a member of the Natural Environment Research Council, and a Fellow of the American Academy of Microbiology. The Scottish Government has recently invited applications from individuals to succeed Professor Glover.

Professor Anne Glover and Professor Louise Richardson, Principal and Vice-Chancellor of the University of St Andrews, have been appointed to the Scottish Government's Council of Economic Advisers (CEA). Other RSE Fellows already on the Council are, Professor Sir James Mirrlees HonFRSE, Jim McColl OBE and Professor Andrew Hughes Hallett.

Sir John Arbuthnott, RSE President, served as Principal and Vice-Chancellor of Strathclyde University from 1991 to 2000, during which period (in 1998) the John Arbuthnott Building was opened. The Strathclyde Institute of Pharmacy and Biomedical Sciences (SIPBS) is based in the building. Sir John was succeeded as Principal and Vice-Chancellor by Professor Andrew Hamnett FRSE and Sir John is pictured (right) at the opening of the new Hamnett Wing of the Arbuthnott Building on 31 October 2011.

Professor Sir John Meurig Thomas FRS, HonFRSE has been awarded the Kapitza Gold Medal 2011 by the Russian Academy of Natural Sciences. He has also been invited to give the Jayne Memorial Prize Lecture 2011 by the American Philosophical Society, Philadelphia.



RSE PRESENTED WITH FINE 19TH-CENTURY ENGRAVING

At a small ceremony on 6 December, the Royal Scottish Society of Arts presented the RSE with an engraving entitled 'Distinguished Men of Science' – an imaginary assembly in the Upper Library of the Royal Institution of leading engineers and scientists alive in 1807–08. Of the 51 depicted, 19 were RSE Fellows, including the engineers James Watt, Thomas Telford and John Rennie and the scientists Sir Joseph Banks, Sir Humphry Davy, Professor John Playfair and Dr Nevil Maskelyne.



Officially presented to the RSE by RSSA President Ian Robson, (right, above) the engraving was accepted on behalf of the Society by Sir John Arbuthnott, RSE President.

FELLOWS' COFFEE MEETINGS

Coffee is available in the Fellows' Room on Tuesday mornings at 10.30 am. Once a month, between October 2011 and March 2012, this will take the form of a discussion in the East Wellcome Room. These are informal and friendly occasions, open to all Fellows and, if you are able to attend, you will be made most welcome.

Forthcoming discussions are:

10th January 2012	Professor Olivia Robinson FRSE <i>Why Roman Law?</i>
7th February 2012	Dr Job Thijssen <i>Materials Science for Enhanced Energy Storage and Conversion</i>
6th March 2012	Professor David A. S. Fergusson FRSE <i>Science, Wisdom and Faith</i>

FELLOWS DECEASED

It is with much regret that we record the deaths of the following Fellows:

Professor John Russell ANDERSON CBE
Professor Charles Malcolm BROWN
Professor (William) Norrie EVERITT
Sir David JACK CBE
Sir William Rede HAWTHORNE CBE HonFRSE
Sir Donald McCALLUM CBE
Professor John McCARTHY HonFRSE
Professor Andrew Stewart SKINNER

Dates for Diaries 2012

- 5 March 2012
Announcement of Election of New Fellows
- 14 May 2012
Induction of New Fellows
- 3 September 2012
Research Awards Reception
- 1 October 2012
Annual Statutory Meeting

Home and Away

Science and the Parliament – 9 November 2011

This annual event organised by the Royal Society of Chemistry (RSC) was again held at Our Dynamic Earth in Edinburgh, focusing on *Science and the Economy*. It addressed the urgent question of how we can sustain and build upon Scotland's traditional strength in science and use this to create wealth and employment.



John Swinney MSP (second left) with Professor David Phillips OBE, President of the RSC, at the RSC exhibition stand.

Participants in the event included: Dr Robert Parker, Chief Executive of the Royal Society of Chemistry (RSC); Professor David Phillips OBE, President of the RSC; John Swinney MSP, Cabinet Secretary for Finance, Employment and Sustainable Growth; Professor Anne Glover CBE, Chief Scientific Adviser for Scotland; Douglas Fraser, BBC Scotland; Richard Baker MSP; and Stuart McMillan MSP.

As part of the International Year of Chemistry, pupils from three schools presented their findings from participation in the Global Water Project. Professor Glover then presented awards, on behalf of the RSC, the Society of Biology and the Institute of Physics, to the highest achievers in Scottish Highers, Advanced Highers and Further Education certificates. The first RSE/BP Hutton Prize in Energy Innovation was also presented (see p. 4).

Breakout sessions debated the Economy, Climate Change and Education and the feedback session was followed by a talk by Professor Alice Brown, General Secretary of the RSE (pictured) about the RSE working group on Women in STEM (Science, Technology, Engineering and Mathematics), which is shortly to publish its findings.



Professor Lesley Yellowlees gave the closing remarks and the evening concluded with a reception and exhibiton by participating organisations. As always, the day provided an invaluable platform for learning, discussion and networking, the whole event proving to be thoroughly stimulating and thought-provoking.

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