

PARLIAMENTARY AND SCIENTIFIC COMMITTEE



An All-Party Parliamentary Group

ANNUAL REPORT FOR 2023

This is not an official publication of the House of Commons or the House of Lords. It has not been approved by either House or its committees. All-Party Parliamentary Groups are informal groups of Members of both Houses with a common interest in particular issues. The views expressed in this report are those of the group.

Office-holders 2023

President Viscount Stansgate

Chairman Mr Stephen Metcalfe MP

Deputy Chairman Ms Chi Onwurah MP

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Secretariat

Mr Leigh Jeffes Mr David Youdan E: office@scienceinparliament.org.uk www.scienceinparliament.org.uk Registered Address : 2nd Floor, 201 Great Portland Street, London W1W 5AB

Council

At the end of 2023 the following were members of the Council:

Sir Peter Bottomley Colin Danson Professor Michael Elves Mr Atti Emecz Chris Green MP Professor Ian Haines Dr Guy Hembury Mr Paul Jackson John Lowe BEM Andrew Mackenzie Professor Francesca Medda Mr Stephen Metcalfe MP Ms Carol Monaghan MP Ms Chi Onwurah MP Professor Narender Ramnani Dr Elizabeth Rollinson Ms Doris-Ann Williams MBE Lord Willis of Knaresborough

Advisory Panel

Daniel Callaghan

Membership

Parliamentary Membership

Any member of either House of Parliament including those hereditary peers in membership of the Committee on 8th November 1999 shall be eligible to be a member of the Committee.

House of Lords

Baroness Andrews Lord Austin of Dudley Lord Boswell of Aynho **Baroness Brown of Cambridge** Lord Clement-Jones Lord Craig of Radley Lord Deben Lord Fox Lord Framlingham **Baroness Greenfield** Lord Hacking **Baroness Hamwee** Viscount Hanworth Lord Haskel Lord Hennessy of Nympsfield Lord Hunt of Wirral Lord Jopling **Baroness Jones of Whitchurch** Lord Kakkar Lord Kirkhope of Harrogate

Lord Krebs Lord Lucas Lord MacKenzie of Culkein Lord McColl of Dulwich Lord Mitchell Professor Lord Robert Mair CBE Baroness Neville-Rolfe Baroness Nicholson of Winterbourne Lord Northbrook **Baroness Northover** Lord Patten Lord Rees of Ludlow Lord Rooker Viscount Stansgate Lord Sterling of Plaistow Lord Stone of Blackheath Lord Taverne Lord Taylor of Holbeach CBE Lord Taylor of Warwick **Baroness Thornton** Lord Trees Lord Trefgarne

Lord Turnberg Lord Vaizey of Didcot Lord Waldegrave of North Hill Baroness Walmsley

House of Commons Adam Afrivie Aaron Bell Bob Blackman Sir Peter Bottomley Andrew Bridgen Dawn Butler Jo Churchill Chris Clarkson Dr Therese Coffey **Ronnie Cowan** Tracey Crouch Alex Cunningham **David Davies** Martyn Day Thangam Debbonaire **Caroline Dinenage Ruth Edwards** Nigel Evans George Freeman Katherine Fletcher Mark Garnier Sir Robert Goodwill Rt Hon Michael Gove Patrick Grady Chris Green **Stephen Hammond** Paul Holmes

Baroness Warwick of Undercliffe Lord Willis of Knaresborough Lord Winston Baroness Young of Old Scone

Sir Bernard Jenkin Gareth Johnson **Darren Jones** David Jones Clive Lewis Rebecca Longbailey Kerry McCarthy Stephen McPartland Stephen Metcalfe Rt Hon Ed Miliband Carol Monaghan **David Morris** Chi Onwurah Chris Philp Jonathan Reynolds Alok Sharma Alec Shelbrooke Jeff Smith Karin Smyth Jo Stevens **Graham Stringer** Alison Thewliss Stephen Timms Chris Wakeford Ben Wallace Matt Warman Hywel Williams

Hereditary Peers

Earl of Cranbrook Viscount Weir

Honorary Members

The Committee may appoint honorary members who by virtue of their standing or their office may appropriately engage in the Committee's activities.

The President, The Royal Society (Sir Adrian Smith) The President, The Royal Academy of Engineering (Sir Jim McDonald)

Chief Scientific Advisors:

Government Chief Scientific Adviser Department for Business and Trade Department for Culture, Media and Sport Department for Education Professor Dame Angela McLean Professor Julia Sutcliffe Professor Tom Crick Professor Russell Viner Department for Energy, Security and Net Zero Professor Paul Monks Department for Environment, Food and Rural Affairs Department for Levelling Up, Housing and Communities Department for Science, Innovation and Technology Vacant Department for Transport **Department for Work and Pensions** Department of Health and Social Care Food Standards Agency Foreign, Commonwealth and Development Office Health and Safety Executive His Majesty's Treasury Jess Glover Home Office Met Office Ministry of Defence Ministry of Defence (Nuclear) Ministry of Justice National Police Chiefs' Council National Security Northern Ireland Executive Scottish Government Welsh Government

Professor Gideon Henderson **Professor Richard Prager Professor Sarah Sharples** Trevor Huddleston Professor Lucy Chappell Professor Robin May Professor Charlotte Watts Professor Andrew Curran) Professor Jennifer Rubin Professor Stephen Belcher Professor Vernon Gibson (interim) Professor Bill Lee Hugh Stickland (interim) **Professor Paul Taylor** Alex van Someren Rob Grundy (interim) Professor Julie Fitzpatrick Professor Jas Pal Badyal

Life Members

The Committee may also elect up to a maximum of twenty-five life members who, on retirement from Parliament or their institution, will qualify by having served the Committee either as officers or in some other capacity and given valuable service to it. It will be the responsibility of the Council to recommend such former members for this category.

Tam Dalyell Dr Brian Iddon Dr Tom Inch OBE Professor Alan Malcolm Richard Page Ian Taylor MBE Dr Desmond Turner Dr Peter Warren CBE Lord Broers

Individual Members

The Committee may also elect individual members who, on retirement from Parliament or their institution, wish to remain actively engaged in the Committee's activities. Individual membership shall have a term of five years, which shall be renewable. It will be the responsibility of the Council to recommend individuals for this category.

Professor John Allen Dr Andrew Body Professor Derek Clements-Croome Sir Frederick Crawford Dr John Dudeney OBE Dr William Duncan

Philip Greenish CBE Professor Michael Elves Professor Ian Haines Dr Bryan Hanley Professor Izzet Kale Dr Ashley Lenihan Professor Graham Machin Denise McLaverty Professor Robert Pickard Professor Dr Mini C. Rai Professor Chris Rapley Dr Elizabeth Rollinson Dr Adrienn Tomor Stephen Turner Dr Anthony Whitehead Dr Keith Winters

Scientific and Technical Organisations

An organisation or society shall be eligible for election to the Committee as a Scientific and Technical Organisation if the Council is satisfied that it is either:-

(i) A National Institution or Association for qualifying scientists, engineers or technologists; or

(ii) A Research Organisation which is not of a profit-making character, or part of an individual commercial or profit-making undertaking, and which is either directly engaged in natural or social science, pure or applied, or both providing funds for research to be conducted by other bodies and also taking a direct part in determination of the programmes of such research, or

(iii) A body, the contribution of which to the scientific life of the country makes its membership, in the opinion of the Council, desirable in order to advance the agreed objects of the Committee.

In reaching a decision with regard to eligibility regard shall be had to the extent to which the branch of science, engineering or technology represented by the applicant organisation is already adequately represented on the Committee.

Note: No organisation which had been elected to membership by the Committee prior to January 1963, shall be rendered ineligible for membership under this sub-clause.

Alcis Holdings AIRTO The Alan Turing Institute Applied Microbiolgy International Association of Management & Professional Staffs AWE The Babraham Institute **Biochemical Society Biotechnology and Biological Sciences Research Council** British Antarctic Survey British Geological Survey The British Institute of Radiology **British Measurement & Testing Assn British Neuroscience Association British Pharmacological Society** British Society for Animal Science British Society for Antimicrobial Chemotherapy British Society for Immunology British Society of Soil Science

Alison Hall MBE Professor Richard Brook OBE FREng Sir Adrian Smith Propfessor Brendon Gilmore

Tony Harding, Marijke Smith Colin Danson Professor Wolf Reik Kate Baille

Chief Executive Professor Jane Francis Dr Karen Hanghoj Ms Carole Cross Greg Ward Professor Narender Ramnani Anna Zecharia Maggie Mitchell

Mrs Tracey Guise Matthew Gibbard Andrew Morris British Specialist Nutrition Association Ltd CABI **Cavendish Laboratory Chartered Institute of Ergonomics** and Human Factors **Chartered Institute of Patent Attorneys Clifton Scientific Trust Ltd** The Daphne Jackson Trust **Diamond Light Source Ltd** Economic and Social Research Council **Engineering & Physical Sciences Research Council** Engineering Professors' Council EngineeringUK Foundation for Science and Technology Foundation for Science, Technology and Civilization Francis Crick Institute Fraunhofer UK Research Ltd The Geological Society The Ground Forum Hazards Forum Institute of Acoustics Institute of Biomedical Science Institute of Corrosion Institute of Mathematics & Its Applications Rosalind Azouzi Institute of Measurement and Control Institute of Physics Institute of Physics and Engineering in Medicine Institution of Chemical Engineers Institution of Engineering and Technology

Institute of Innovation and Knowledge Exchange Institution of Mechanical Engineers Isaac Newton Institute for Mathemantical Sciences John Innes Centre Knowledge Transfer Network Linnean Society of London London Mathematical Society Medical Research Council Met Office Microbiology Society National Biofilms Innovation Centre (NBIC) Administrator National Oceanography Centre, Southampton National Physical Laboratory

Natural Environment Research Council Natural History Museum

Declan O'Brien **Dr Richard Shaw** The Secretary

Ben Peachey Dr Julian M Potter, R P Jackson, Lee Davies Dr Eric Albone MBE Dr Katie Perry, Tim Julier Laura Male Tony McEnery, Ms Susie Watts

Roxy Squire, Ciara McLoone Johnny Rich Mark Titterington Gavin Costigan

Dr Anne-Maria Brennan Sir Paul Nurse Simon Andrews, Professor Martin D Dawson Simon Thompson Chairman Luise Vassie Allan Chesney Nadine Rulliere **Dr Douglas Mills** Steff Smith **Professor Paul Hardaker**

Dr Robert Farley, Dr Richard Axell Jon Pritchard , Miles Seaman Paul Davies, FL Pitt, Robert Beahan, Anthony Kearns

Professor Sa'ad Medhat Dr Alice Bunn

Deputy Director James Piercv Dr Alicia Greated Professor Anjali Goswami **Professor Cathy Hobbs** Chief Executive **Professor Stephen Belcher Dr Peter Cotgreave**

Professor Edward Hill Dr Peter Thomson, Professor John Pethica, Alex Connor Professor Duncan Wingham Sir Michael Dixon, John Jackson

Nuffield Council on Bioethics The Nutrition Society The Physiological Society **Plymouth Marine Laboratory** Quadram Institute Bioscience **Radioactive Waste Management** (Nuclear Waste Services) **Rosalind Franklin Institute Royal Academy of Engineering Royal Astronomical Society** Royal Botanic Gardens, Kew **Royal College of Pathologists Royal College of Veterinary Surgeons** The Royal Horticultural Society **Royal Meteorological Society** The Royal Society The Royal Society of Biology The Royal Society of Chemistry The Royal Society of Edinburgh SCI Society of Chemical Industry The Science Council Science Made Simple Ltd Science & Technology Facilities Council Society for Underwater Technology Society of Cosmetic Scientists Society of Dyers and Colourists Society for Radiological Protection **STEM Learning UK Health Security Agency** UKRI Universities Federation for Animal Welfare Chief Executive Warwick Manufacturing Group The Worshipful Company of Engineers

Hugh Whittall, Catherine Joynson Dr Mark Hollingsworth Dariel Burdass, Andrew Mackenzie Professor Icarus Allen Andrew Chapple

Professor Cherry Tweed, Neil Hyatt Laura Holland Dr Hayaatun Sillem, Dr A M Neville CBE, Professor Michael Wood, Barry Haseltine MBE, Dr William 'Stan' Jones OBE Professor Emma Bunce, Philip Diamond, Dr Robert Massey **Professor Kathy Willis** Michael Osborn, Janine Aldridge, **Professor Diane Gaston** Dr Niall Connell Alistair Griffiths Liz Bentley Sir Adrian Smith, Dr Julie Maxton, Dr Mark Downs Dr Robert Parker, Matt Davies Professor Sir John Ball Sharon Todd, Dr David Bott Helen Gordon Wendy Sadler MBE Ms Natalie Bealing **Dr Cheryl Burgess** The President Dr Graham Clayton President Alice Coates **Professor Virginia Murray Roxy Squire** Hopi Sen Colonel D J L Swann CBE

Commercial Members

The Council may also elect to the Committee up to a maximum of 100 Commercial Members, such maximum being subject to modification at any subsequent Annual General Meeting. Such members shall be Companies registered in the UK or UK nationalised Undertakings or organisations representing a sector of industry. In electing a Commercial Member, the Council shall have regard to the desirability of ensuring that the membership as a whole is representative of as wide a range as possible of activities involving Science, Engineering and Technology. In reaching a decision as to eligibility regard shall be had to the extent to which the applicant is engaged in scientific, engineering or technological research.

Abbeyvet Export LLP AstraZeneca PLC British In Vitro Diagnostics Association Dr Iain MacKellar Hillary Layard-Liesching Helen Dent The Cosmetic, Toiletry and Perfumery Association Ltd David Dent Associates Geomatrix Earth Science Ltd LGC Ltd R S Clare & Co Ltd Varley Engineering Limited

Dr Emma Meredith Professor David Dent Tom Nicols Dr Derek Craston, Tim Robinson Roy Coldwell, Ian Meadows David Slater

University Members

Universities of the UK, Institutions in Scotland and Northern Ireland equivalent to schools and colleges of individual universities where appropriate shall be eligible for election by the Council. In reaching a decision as to eligibility regard shall be had to the extent to which the applicant is engaged in scientific, engineering or technological research.

Anglia Ruskin University

University of Bangor University of Bath University of Bedfordshire University of Birmingham University of Bradford **Brunel University** University of Buckingham Cardiff University Cranfield University University of Derby University of Dundee University of Durham University of East Anglia University of East London University of Edinburgh Edinburgh Napier University University of Essex University of Exeter University of Greenwich Harper Adams University University of Hull Imperial College London

Kings College London

University of Leicester University of Leeds University of Liverpool Liverpool Hope University London South Bank University University of Loughborough Middlesex University Newcastle University Professor Roderick Watkins, Professor Eamon Strain **Professor Ian Davies** Professor Jonathan Dawes, Dr Andrew Weyman Professor Jan Domin **Professor Marike Taylor** Professor John Bridgeman Professor Paul Hellewell **Professor James Tooley Professor Rudolf Allemann** Professor Karen Holford CBE, Professor Kathryn Mitchell Dr Karen Petrie Neil Heckels, Lisa Hodgson Executive Dean of Science **Professor Verity Brown** Professor Peter Mathieson Professor Gary R Hutchison Dr Robert Singh, Paul Jackson **Professor Lisa Roberts** Vice-Chancellor Professor Dawn Arnold Professor Pilar Pousad-Solino Provost, College Secretary, Professor Paul French Professor Richard Trembath, Dr Sarah Markham, **Dr Richard Siow Professor Martin A Bristow** Professor Kurt Langfield Professor Wiebe van der Hoek Professor Andrew Foulkes Professor Deborah Johnston **Professor Chris Linton Professor Sean Wellington** Vice-Chancellor

University of Northampton University of Northumbria The Open University **Oxford Brookes University** University of Portsmouth University of Plymouth Queen Mary, University of London University of Reading University of Roehampton Royal Holloway, University of London University of Andrews University of Southampton University of Strathclyde University of Sunderland University of Surrey **Teesside University** University College London

Ulster University University of Warwick University of West London University of Westminster University of the West of Scotland University of Wolverhampton University of York Professor Anne-Marie Kilday Professor Andy Long Pro-Vice-Chancellor (Research and Enterprise) **Professor Alistair Fitt** Sarah Duckering Professor Jerry Roberts Professor Sir Colin Berry Dr Guy Hembury **Professor Jean-Noel Ezingeard** Vice-Chancellor Principal Gareth Giles Professor Sir Jim McDonald **Professor Jon Timmis** Professor Michael Kearney **Professor Simon Hodgson** Dr Michael Spence, Professor Francesca Medda, Sarah Chaytor Tim Brundle Pro Vice-Chancellor **Professor Peter John CBE** Vice-Chancellor Professor Milan Radosavljevic **Professor Geoff Layer** Joan Concannon

Sixth Form College

The National Mathematics and Science College

Dr Andy Kemp. Jocelyn D'Arcy

Associate Members

The Council may elect to the Committee as Associate Members Bodies which, although not engaged in scientific research, represent the interests of those who are significantly affected by science and which, in the opinion of the Council, are in a position to contribute positively to the work of the Committee.

Penningtons Manches Cooper LLP The UK Innovation Science Seed Fund LLP

Christopher Shelley Dr Andrew Muir

Parliamentary and Scientific Committee - APPG Minutes of the Annual General Meeting

Held on Tuesday 25 April 2023 at 5:00pm

PRESENT Stephen Metcalfe MP (Chair), Viscount Stansgate, Baroness Julia Brown of Cambridge, Lord Trees, Chris Green MP, Colin Danson, Doris-Ann Williams, Guy Hembury, Michael Elves, Oliver Bennett, Tom Nicols, William Duncan, Peter Thorpe, Ion Secula, Benjamin Guedj, Cheryl Burgess, Isabel Spence, Karen Smith, Julia Parker, Daryl Howe, Ian Lucas, Meghna Ravishankar, Peter Anson, Rosalind Azouzi, Alan Peacock, Ryan Mercer, Barry Heseltine, Simon Waldron, John Slater, Anthony Kearns, Adrienn Tomar, Tim Julier, Seb Janner, Matt Rooney, Laura Kent, Jeff Llewellyn, Caroline Pritchard.

Leigh Jeffes, David Youdan and Karen Smith were in attendance.

1 BUSINESS FROM THE CHAIR

The Chair reminded Attendees that in accordance with the rules governing the Annual General Meetings of All-Party Parliamentary Groups only Parliamentarians present may vote. However, all Attendees would be able to make statements and ask questions.

The Chair welcomed Baroness Brown to the meeting and thanked her in advance for the talk that she would be presenting to attendees at the close of the meeting. The Chair commented that he was pleased that the Parliamentary and Scientific Committee had had a productive year. He appreciated that meetings had returned to a face-to-face format within Parliament. He commented that an excellent programme of talks and meetings had been held in 2022 and continued into 2023. Indeed, the evening before on the 24 April an extremely good session had been presented by the National Physical Laboratory on the topic of 'Time'.

2. MINUTES of the Annual General Meeting held on Tuesday 15 March 2022. The minutes, which had been circulated, were agreed and signed.

3. ELECTION OF OFFICERS

3.1 Election of President

The election of Viscount Stansgate as President was proposed by the Chair, seconded by Chris Green MP and agreed nem-con by the Members of Parliament attending the meeting.

3.2 Election of Chairman, Vice Chairman, Hon. Secretary, Hon. Treasurer and Vice-Presidents

The election of Stephen Metcalfe MP as Chair was proposed by Viscount Stansgate, seconded by Chris Green MP and agreed nem-con by the Members of Parliament attending the meeting.

The election of the following Officers was proposed by the Chair, seconded by Chris Green MP and agreed nem-com by the Members of Parliament attending the meeting:

Deputy Chairman Ms Chi Onwurah MP

Hon Treasurer Lord Willis of Knaresborough Hon Secretary Ms Carol Monaghan MP

Vice-Presidents Mr Atti Emecz Professor Ian Haines Dr Guy Hembury Ms Doris-Ann Williams MBE Professor Francesca Medda Sir Peter Bottomley Chris Green MP

3.3 Election of Council and Advisory Panel members for 2023/2024

The election the following members to the Council was proposed by the Chair, seconded by Chris Green MP and agreed nem-com by the Members of Parliament attending the meeting:

Sir Peter Bottomley Colin Danson **Professor Michael Elves** Mr Atti Emecz Chris Green MP **Professor Ian Haines** Dr Guy Hembury Mr Paul Jackson John Lowe BEM Andrew Mackenzie Professor Francesca Medda Mr Stephen Metcalfe MP Ms Carol Monaghan MP Ms Chi Onwurah MP Professor Narender Ramnani Dr Elizabeth Rollinson Ms Doris-Ann Williams MBE Lord Willis of Knaresborough

The election of the following members to the Advisory Panel was proposed by the Chair, seconded by Chris Green MP and agreed nem-com by the Members of Parliament attending the meeting:

Daniel Callaghan

4. TO RECEIVE THE ANNUAL REPORT 2022

The Annual Report for 2022 had been circulated. The Chair proposed that this be adopted, this was seconded by Viscount Stansgate and agreed nem-com by the Members of Parliament attending the meeting.

Matt Rooney requested that the correct name of 'The Institution of Mechanical Engineers' should be used in the Annual Report and in the meeting papers.

5.1 To receive the Financial Statement for 2022

The Treasurer reported on the Finance Report that had been circulated. The year-end result showed a surplus of £19k.

The Chair requested that the accounts for 2022 be adopted, this was proposed by Chris Green MP and seconded by Baroness Brown and agreed nem-com by the Members of Parliament attending the meeting.

5.2 Financial Estimates for 2023

The Treasurer advised that the 2023 budget had been based on the same level of membership subscriptions as had been achieved in 2023. She also noted that the membership invoices included a 3% increase from the 2022 figures. As a result the budget showed a proposed year end surplus of £13k.

The Chair proposed that the 2022 Budget be adopted; this was seconded by Chris Green MP and agreed nem-con by the Members of Parliament attending the meeting.

5.3 To ratify Subscriptions for 2023

The membership rates for 2023 had been circulated. Council had proposed a 3% increase for the year.

The Chair requested that the 2023 membership subscription rates be ratified. This was proposed by Viscount Stansgate and seconded by Baroness Brown and agreed nem-com by the Members of Parliament attending the meeting.

6 REPORT FROM THE COUNCIL

The report, covering resourcing the work of the Committee, Membership, the Programme, Science in Parliament, STEM for Britain and Social Media had been circulated.

Council had met four times during 2022.

The Chair advised that thanks to Leigh Jeffes and the P&SC Team there had been an increase in membership in the past year, Science in Parliament was now distributed to both Houses, there had been an excellent programme of events and STEM for Britain was an on-going success.

Leigh Jeffes thanked Lord Trees and William Duncan for their support with the P&SC journal, Science in Parliament, and expressed his thanks to the many excellent authors who contributed through the year.

The Chair proposed that the Report be approved; this was seconded by Viscount Stansgate and agreed nem-con by the Members of Parliament attending the meeting.

7. ANY OTHER BUSINESS

In response to a question, Karen Smith advised that membership fees can be paid by bankcard, and those requesting to make a payment in this way should email their request to her.

Addresses and Discussions 2023 See <u>www.scienceinparliament.org.uk</u> for further information

16 January 2023 – Energy – Sponsored by UKRI.

There are few subjects more topical than energy security. The Committee heard from four expert speakers about the UK's position with regards to energy security:

Professor Jim Watson, Professor of Energy Policy and Director at UCL's Institute for Sustainable Resources,

Dr Rebecca Ford, Senior Lecturer and Chancellor's Fellow at the University of Strathclyde's Centre for Energy Policy,

Professor John Barrett OBE, Professor of Energy and Climate Policy in the School of Earth and Environment at the University of Leeds,

Dr Lucy Martin, Deputy Director of Cross-Council Programmes with the Engineering and Physical Sciences Research Council at UKRI.

7 February - Digital Skills - Sponsored by IET.

Technology is progressing at a faster rate than ever before and our society needs to keep up with it. The four expert speakers discussed the need to improve digital skills in the UK workforce:

Dr Graham Herries, Engineering Director, IET,

Yvonne Baker OBE, Chief Executive of STEM Learning,

Professor Rab Scott, Head of Digital at University of Sheffield's Advanced Manufacturing Research Centre

Professor Tim Dafforn, Professor of Biotechnology at the University of Birmingham.

<u>21 February 2023 - Synthetic Biology: The Opportunity for the UK to be a Leader in Synbio</u> for Human Health. - Sponsored by bit.bio

Synthetic biology (synbio) will provide the next generation of advanced cures and therapies. The four experts spoke about this exciting field and how the UK can be a synbio pioneer:

Fiona Mischel, Director of International Outreach at SynBioBeta, Dr Sara Holland, Patent Attorney at Potter Clarkson, Dr Joe Healey, Co-founder and CEO of NanoSyrinx, Dr Mark Kotter, Founder and CEO of bit.bio.

6 March 2023 – STEM for Britain

STEM for Britain is a poster competition to showcase scientific research carried out by early career researchers across 5 disciplines of STEM: Chemistry, Biological and Biomedical Sciences, Physics, Mathematics and Engineering and to give members of both Houses of Parliament an insight into the outstanding research work being undertaken in UK universities by early-career researchers.

24 April - Measurement of Time - Sponsored by NPL.

The reliable measurement of time is essential for the effective functioning of a modern economy, including defence, navigation and finance. The expert panel of NPL scientists explained modern timekeeping, how the time scale is established and why it's important – illustrated by specific relevant examples focused on the need of reliable time keeping for global financial markets and using time-measurement to provide early warning for Tsunamis:

Professor Helen Margolis MBE, Dr Leon Lobo, Dr Giuseppe Marra.

<u>22 May - The Deep Tech SME Ecosystem - Supporting research-intensive SMEs for growth.</u> - Sponsored by the Royal Society of Chemistry

Global manufacturing is valued at over £14tn, of which £240bn comes from the UK. It has developed complex, global supply chains optimised for cost and convenience. But over the last few decades other drivers have assumed greater importance – minimising emissions of greenhouse gases and conservation of raw materials! This is making the evaluation of new materials, new processes and minimisation of waste priority goals for manufacturing industries around the world, and these changes are reorganising the global distribution of manufacturing.

These factors play out differently in different end use sectors – what works in the automotive industry is different from the packaging industry, the construction industry, the aerospace industry, the food industry, or the home and personal care industry. What they all share is the need for better information up and down the supply chains, investment in new production equipment and regulation that drives the right changes.

The panel of expert speakers spoke about the progress towards sustainability and what is needed to be able to proceed at pace:

Tanya Sheridan, Head of Policy and Evidence, Royal Society of Chemistry, Professor Martin Freer, Vice-President for Science and Innovation, Institute of Physics Dr Alexander Reip, Chief Technical Officer, Oxford nanoSystems, Dr Joe Marshall, Chief Executive, National Centre for Universities and Business..

<u>12 June - Making things sustainably – What is sustainable making?- Sponsored by the Warwick Manufacturing Group.</u>

The resources of this planet are finite. Thus, with an increasing global population, demand will increase and will become unsustainable. So, instead of a linear production model of make, sell, use and dispose, we need a circular model of make, sell, use, re-use, repair, repurpose and eventually recycle. In order to achieve this, we will need long term sustainability strategies – both nationally and globally – and this is the challenge.

The expert panel who discussed this were:

Professor Claire Davis, Warwick Manufacturing Group, Professor Mark Jolly, Cranfield University, Professor Jeremy Frey, University of Southampton, Nick Pearson, Rolls Royce.

<u>4 July</u> - Annual Lunch – held in the House of Lords

Guest Speaker – Lord Krebs

10 July - STEM for Britain Gold Medal Winners Meeting and Dinner.

As part of the Parliamentary and Scientific Committee's (P&SC) annual STEM for Britain event, The Westminster Medal is awarded to the overall winner and is decided from the gold winners of each discipline. The medal is awarded in memory of the late Dr Eric Wharton, who did so much to establish SET for Britain as a regular event in the Parliamentary calendar.

<u>18 September - Digital Health for the 21st Century - Sponsored by Northumbria University</u> and Newcastle University.

Digital technology provides innovative opportunities to reduce health inequalities and support the most marginalised in society. The three expert speakers about the innovative ways new technology is being used.

Professor Matthew Kiernan, Professor of Mental Health and Veteran Studies at Northumbria University,

Dr Gemma Wilson-Menzfeld, Associate Professor of Ageing and Digital Health Psychologist at Northumbria University,

, Prof. Abi Durrant, Professor of Interaction Design at Newcastle University.

16 October – Changing how we see life - Sponsored by the Rosalind Franklin Institute.

Artificial Intelligence (AI) has progressed at an unprecedented pace in recent years. These developments have resulted in exciting opportunities to improve our understanding and treatment of various diseases.

The three expert speakers were: Professor James Naismith , The Rosalind Franklin Institute Professor Sheena Radford, University of Leeds Dr Michalis Papadakis, CoFounder & CEO of Brainomix.

<u>20 November – The Impact of Extreme Heat on Vulnerable Populations - Sponsored by the Physiological Society.</u>

UK temperatures have seen a dramatic increase since 2010, with summer 2023 and summer 2022 being the first and second hottest summers on record respectively. The six expert speakers spoke about the dramatic effect this could have on our health:

Prof. Mike Tipton, Professor of Human and Applied Physiology, Dr Cat Pinho-Gomes from Institute of Health informatics at UCL, Carl Petrokofsky, UK Health Security Agency, Prof. Elizabeth Robinson, Director of and Head of Local Climate Action, Dr Candice the Grantham Research Institute on Climate Change at LSE, Baroness Dr Fiona Twycross

Christmas Parliamentary Science Reception Wednesday 13th December

The Reception was co-sponsored by Stephen Metcalfe MP, The Viscount Stansgate, Chi Onwurah MP, Carol Monaghan MP and Layla Moran MP and organised by the Parliamentary & Scientific Committee on behalf of, and in cooperation with, the Science, Technology, Engineering and Mathematics (STEM) community.

The scientific societies supporting this event were: The Royal Society, Royal Society of Biology, Nutrition Society, The Physiological Society, the Council for the Mathematical Sciences, Royal Society of Chemistry, Institute of Physics, the Institution of Engineering Technology, Royal Academy of Engineering, Biochemical Society, and Applied Microbiology International.

The Parliamentary and Scientific Committee is an All-Party Parliamentary Group funded by Membership – for details go to https://www.scienceinparliament.org.uk/publications/annual-reports/ Registered address: 2nd Floor, 201 Great Portland St, London W1W 5AB

Chair and Registered Contact – Stephen Metcalfe MP, email: Stephen.metcalfe.mp@parliament.uk