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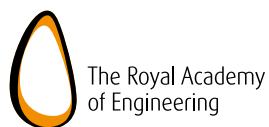
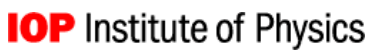
King's College London Sept 2 - 3 2014

## 2014 CONFERENCE PROGRAMME

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# SUMMARY PROGRAMME

## 2 SEPTEMBER

10.00 — 10.05	Chairman's Welcome
10.05 — 10.45	Keynote by Mike Morgan: <a href="#">The Oklahoma Medical Research Foundation Research Tower: Innovation in US Biomedical Facilities</a>
10.45 — 11.25	Keynote by Ian Dunn: <a href="#">Creating Communities of STEM Learning Through Innovative Design: The Engineering and Computing Building at the University of Coventry</a>
11.35 — 12.50	Main Sessions MA (see details on p.6)
12.30 — 14.00	Lunch and Briefing Sessions BA (see details on p.10)
14.00 — 15.15	Main Sessions MB (see details on p.7)
15.15 — 15.45	Refreshments
16.00 — 17.15	Main Sessions MC (see details on p.8)
17.20 — 19.00	Reception, sponsored by VWR and Waldner
All Day	Tours of various laboratories within Conference Building (see details on p.5)

## 3 SEPTEMBER

09.30 — 09.35	Chairman — Key Issues from Day 1
09.35 — 10.15	Keynote by Christopher Mottershead and Ian Caldwell: <a href="#">STEM Strategies and Support at King's College</a>
10.15 — 10.45	Keynote by Michael Johnson and Alan Garmonsway: <a href="#">The New Pirbright Institute: Managing Big Science Developments and Using Them to Drive Change</a>
10.45 — 11.45	Refreshments served throughout this period to maximise choice between three options:
11.15 — 12.30	Main Sessions MD (see details on p.9)
11.15 — 11.45	Briefing Sessions BB (see details on p.11)
11.55 — 12.25	Briefing Sessions BC (see details on p.11)
12.30 — 13.15	Lunch followed by a choice between three on-site sessions or two off-site tours:
13.30 — 14.05	Briefing Sessions BD (see details on p.12)
14.25 — 15.00	Briefing Sessions BE (see details on p.13)
15.20 — 15.55	Briefing Sessions BF (see details on p.14)
13.30 — 15.30	Tours of various facilities and laboratories at King's Guy's Campus (see details on p.5)
14.00 — 16.30	Tour of Olympic Park (see details on p.10)

## SEPTEMBER 2 KEYNOTE SPEAKERS



### **Chip Morgan: The Oklahoma Medical Research Foundation Research Tower: Innovation in US Biomedical Facilities**

Chip has held numerous positions in his 45 years with OMRF and currently serves as Executive Vice President and Chief Operating Officer. In his current capacity, he is responsible for managing the internal business operations of this internationally recognised nonprofit biomedical research institute. During his tenure, OMRF has grown to a contiguous campus of over 500,000 square feet and total assets of \$317 million. Chip received his BBA degree from the University of Oklahoma and holds an MBA from Oklahoma City University and, amongst other voluntary roles, is a Past President of the Board of the Association of Independent Research Institutes.



### **Ian Dunn: Creating Communities of STEM Learning Through Innovative Design: The Engineering and Computing Building at the University of Coventry**

Ian is Deputy Vice-Chancellor for Student Experience at Coventry University and has worked for the last 20 years at Coventry as a Senior Lecturer, Associate Dean and Acting Dean of the Faculty of Engineering and Computing before becoming a PVC in 2010. He is passionate about Coventry University providing the best educational experience for all students, through an exciting, engaging curriculum that transforms the way students are taught. Ian played a key role in the development of the new Engineering and Computing Building, which is shortlisted in the New Building — Teaching and Mixed Use category of the 2014 S-Lab Awards, and whose design drew on innovative methods developed in other universities around the world.

## CONFERENCE NEED TO KNOW

**Keynotes** - each of the four keynote presentations has a follow-on main session which provides an opportunity for elaboration, Q&A, and discussion.

**Main Sessions** - these last for 75 minutes with either one or two presentations. In those with two, speakers are asked to keep to 20-25 minutes to allow scope for questions and discussion. In those with one, the presentation may be slightly longer but there will be more space for interaction. (Listed on pp. 6-9).

**Briefing Sessions** - these are 30 minute sessions providing a concise overview of specialist topics, and/or as an opportunity for sponsors and exhibitors to make presentations. Those which have been paid for are marked with a P and S-Lab has no responsibility for their content. To maximise choice, a number of briefings are repeated. Non-delegates have access to those in the afternoon of September 3. (Listed on pp. 10-14).

**Laboratory Tours** - over both days in the venue, the Franklin-Wilkins Building (FWB), and on the afternoon of September 3 at the nearby Guy's Campus. (See p.5).

**Olympic Park Tour** - An insider's view of the history and future of the Park, and an update on UCL's plans for a new university quarter in Stratford. (See p.10).

**Advice** - slots available in the afternoon of September 3 for 1:1 discussion of professional registration with the Science Council and how can help your career. (See p.17).



## SEPTEMBER 3 KEYNOTE SPEAKERS



### **Dr Michael Johnson: The New Pirbright Institute: Managing Big Science Developments and Using Them to Drive Change**

Michael is the Senior Executive responsible for the re-development of the Pirbright site. Phase 1 is a £135m CL4 laboratory building which has been completed and will be occupied by late 2014. Phase 2 projects, valued at £125m, are to deliver new high and low containment animal facilities and a CL2 laboratory, which began construction in spring 2014. Dr Johnson previously worked for 14 years in the CSIRO CL4 high containment facility in Geelong, Australia, as both a Senior Principle Research Scientist in the field of swine and poultry viral diseases and vaccine development, and as Programme Manager of the diagnostic facility, responsible for Australia's preparedness against exotic viral disease threats. He now sits on the UK High Containment Laboratory Co-ordinating Committee. Dr Johnson's educational degrees are BSc (Hons), MBA and PhD in virology. He is also a Graduate of the Australian Institute of Company Directors and a Member of the Project Management Institute.



### **Alan Garmonsway: The New Pirbright Institute: Managing Big Science Developments and Using Them to Drive Change**

Alan joined the Pirbright Institute in 2010 as Change Director, responsible for developing the Institute's major change programme including the consolidation/closure of the Compton site inline with science strategy, integration of the Institute's DP programme with other change initiatives at Pirbright and occupation of new research buildings within the DP Programme. He also has line management responsibility for corporate communications. Prior to this he was Managing Director of Garmonsway Green Consulting Ltd, offering strategic and operational HR consultancy advice and support to life science companies. His career began as a microbiologist with GSK and has involved substantial periods of time working in both the pharmaceutical and biotechnology sectors in the areas of HR management, change management, start-ups, restructuring and M&A. Alan's background includes significant HR and Organisation Development experience at a number of companies including GSK, Pitman Moore, Xenova Group plc, Amgen, Celtic Pharma and Speciality European Pharma. He is a Chartered FCIPD and holds a degree in Microbiology & Virology from the University of Warwick.



### **Ian Caldwell: STEM Strategies and Support at King's College**

Ian is a chartered architect, graduating from Strathclyde University in 1977. His early career included experience in private practice, local and central government where he was responsible for projects in the Royal Palaces, the Ministry of Defence, the National Gallery and National Portrait Gallery in London, the National Galleries of Scotland and the Supreme Courts of Scotland. In 1989 Ian joined Deloitte's, and later became the Director of Estates at Sheffield Hallam University, Imperial College and then King's College London, a post which he held until June 2014. He is currently an external advisor to the College on aspects of estates including space and design and, in that role, is Acting Director of Space Management. Acting for the College, Ian was a director of the South Bank Employer's Group, a director of the North Bank BID and a founder member of the Chancery Lane Association. He is also Chairman of the Higher Education Quality Design Forum.



### **Chris Mottershead: STEM Strategies and Support at King's College**

Chris is Vice-Principal (Research and Innovation). He joined King's College London in 2009 after retiring from BP, where he worked for 30 years, most recently as their Global Advisor on Energy Security and Climate Change. Prior to this he was Technology Vice President for the Global Gas, Power and Renewables businesses, and was also the Technical Manager for its North Sea exploration and production activities. He has an Applied Physics degree, an MSc in Cybernetics, is a Chartered Electrical Engineer, and a Fellow of the Royal Society of Arts. As well as his College accountabilities, he is a non-Executive Director of the Carbon Trust, Francis Crick Institute and Imanova, a Governor of King's College Hospital NHS Foundation Trust and a member of the Scientific Advisory Group of the Department of Energy and Climate Change in the UK as well as the Advisory Board of the National Center of Atmospheric Research in the US.

# LABORATORY AND FACILITIES TOURS

A number of King's College staff have kindly offered to demonstrate their facilities, and describe their work, to delegates. Those within the Franklin-Wilkes Building (the Conference venue) will be on September 2 and the morning of September 3. Note that some 0920 tours are available for early arrivers before the Conference begins. Tours at Guy's Campus are on the afternoon of September 3. Tours are for a maximum of 10 people at a time and a sign-up sheet will be available at the Conference reception, where all FWB tours start. Visit [www.goodcampus.org](http://www.goodcampus.org) Future Events for more information on the various laboratories.

## The Franklin-Wilkes Building (FWB: Venue)

### Centre of Excellence for Mass Spectrometry

Core facility enabling research and analysis of both small and large biomolecules.

**2 Sept:** 0920, 1310, 1535 **3 Sept:** 1110, 1335

[www.kcl.ac.uk/innovation/research/corefacilities/smallrf/mspec/index.aspx](http://www.kcl.ac.uk/innovation/research/corefacilities/smallrf/mspec/index.aspx)

### Dept of Diabetes and Nutritional Sciences

Metabolic unit supporting state-of-the-art molecular nutrition research and Dietetics Kitchen which facilitates the preparation of food-based nutrition interventions.

**2 Sept:** 0920, 1310, 1535 **3 Sept:** 1110, 1335

[www.kcl.ac.uk/medicine/research/divisions/dns/index.aspx](http://www.kcl.ac.uk/medicine/research/divisions/dns/index.aspx)

### Division of Analytical and Environmental Sciences

Air Quality Monitoring Laboratory (particulate matter measurements to assess regulatory compliance) plus the lung biology unit which studies the mechanisms by which air pollution impacts on respiratory health.

**2 Sept:** 1310, 1535 **3 Sept:** 1110

[www.kcl.ac.uk/biohealth/research/divisions/aes/index.aspx](http://www.kcl.ac.uk/biohealth/research/divisions/aes/index.aspx)

[www.kcl.ac.uk/biohealth/research/divisions/aes/research/ERG/lung-biology/index.aspx](http://www.kcl.ac.uk/biohealth/research/divisions/aes/research/ERG/lung-biology/index.aspx)

### Division of Forensic Science

Demonstration of a blood pattern to forensic DNA profile.

**2 Sept:** 0920, 1310, 1535 **3 Sept:** 1110, 1335

[www.kcl.ac.uk/biohealth/research/divisions/aes/research/forensic/index.aspx](http://www.kcl.ac.uk/biohealth/research/divisions/aes/research/forensic/index.aspx)

### Institute of Pharmaceutical Science

Shared tissue culture facilities and a synthetic biology lab supporting pharmacological and chemical studies that can identify novel drug targets and new chemical entities, through formulation and drug development, to clinical trials and the use of medicines by patients.

**2 Sept:** 0920, 1310, 1535 **3 Sept:** 1110, 1335

[www.kcl.ac.uk/biohealth/research/divisions/ips/index.aspx](http://www.kcl.ac.uk/biohealth/research/divisions/ips/index.aspx)

## Guy's Campus Facilities and Museum

These tours will take place on the afternoon of Sept 3.

The campus is a 20 minute (escorted) walk from FWB, and an escorted service bus option (381 outside FWB) is also available. The afternoon will begin at 1415 with an introduction in the Gordon Museum within the Hodgkin Building. Delegates can view museum exhibits whilst in between tours. These will take place in three 'waves' at 1430, 1520 and 1610, apart from the NMR facility which is 1520 and 1610 only. Three tours can be selected from:

### Centre for Ultrastructural Imaging, New Hunt's House

[www.kcl.ac.uk/innovation/research/corefacilities/majorrf/cui/index.aspx](http://www.kcl.ac.uk/innovation/research/corefacilities/majorrf/cui/index.aspx)

### Gordon Museum

Presentation and discussion on science museum issues (staff also available for informal guidance on museum exhibits in between laboratory tours).

[www.kcl.ac.uk/gordon/index.aspx](http://www.kcl.ac.uk/gordon/index.aspx)

### Nikon Imaging Facility

Hodgkin Building, third floor.

[www.kcl.ac.uk/innovation/research/corefacilities/smallrf/nikon/index.aspx](http://www.kcl.ac.uk/innovation/research/corefacilities/smallrf/nikon/index.aspx)

### NMR Facility

Wolfson Wing, basement.

[www.kcl.ac.uk/innovation/research/corefacilities/smallrf/biospectroscopy/nmr/index.aspx](http://www.kcl.ac.uk/innovation/research/corefacilities/smallrf/biospectroscopy/nmr/index.aspx)

### Zebrafish Aquarium

Hodgkin Building, ground floor.

[www.kcl.ac.uk/newsevents/news/newsrecords/2013/11-November/New-zebrafish-aquarium-launched-at-Kings-.aspx](http://www.kcl.ac.uk/newsevents/news/newsrecords/2013/11-November/New-zebrafish-aquarium-launched-at-Kings-.aspx)



## SEPTEMBER 2, MAIN SESSIONS MA: 11.35 — 12.50

### MA1 Creating Communities of STEM Learning

*Ian Dunn, Deputy Vice-Chancellor, Coventry University*

Elaboration and Q&A/discussion on the earlier keynote: **Creating Communities of STEM Learning Through Innovative Design: The Engineering and Computing Building at the University of Coventry**

### MA2 Designing and Operating Biomedical Research Facilities: US Experience

*Mike D. "Chip" Morgan, Executive Vice President & Chief Operating Officer, Oklahoma Medical Research Foundation and Dan Watch, Practice Leader, Principal, Perkins+Will*

Elaboration and Q&A/discussion on the earlier keynote: **OMRF's Research Tower — Innovation in US Biomedical Research Facilities**

### MA3 Green Impact and Laboratory Environmental Assessment

**Experience Sharing and Updates on University Experience** from *Jo Kemp, NUS Green Impact Project Manager; Martin Farley, Programmes Facilitator — Laboratories, Department of Social Responsibility and Sustainability, University of Edinburgh; Sam McCarthy, Sustainability Assistant, University of Leeds and others.*

### MA4 Laboratory Furniture, Preparation Space and Storage

*Ian Moore, School Improvement Adviser for STEM, and Education Adviser for the Design & Construction Industry (representing the University of Bradford)*

**Flexible Furniture and Services in the University of Bradford's New HE STEM Centre for Outreach**

*Stephen Eccles, Project Manager, Anglia Ruskin University*

**Innovative Carousel Storage in a Refurbished Multi-Science Teaching Laboratory**

### MA5 Laboratory Level Chemical and Equipment Inventories

*Charlie Dunnill, formerly Ramsay Memorial Fellow in the UCL Department of Chemistry, now Senior Lecturer, Energy Safety Research Institute, College of Engineering, Swansea University*

**Chemical Cataloguing, Equipment Sharing and Culture Change: A Lab Management Revolution**

*Fernando do Prada Lopez, PhD Student, School of Pharmacy, Queen's University Belfast*

**Effective Real-time Monitoring of Chemicals and Equipment Resources through an E-shared Database**

### MA6 STEM Building and Campus Managers: Making the Role Effective

*Brian McTeir, Easterbush Campus Facilities and Services Manager, University of Edinburgh*

**Managing Facilities and Services at The Roslin Institute**

*Gillian Joyce, Building Manager, The Sanger Institute*

**Building Management at The Sanger Institute**

### MA7 Well Being in Life Science Research Facilities

*Mel Leitch, Superintendent, and David Pearson, Estates Project Manager, Newcastle University*

**Institute of Neurosciences Extension**

# SEPTEMBER 2, MAIN SESSIONS MB: 14.00 — 15.15

## MB1 Cold Storage: Improving Efficiency and Effectiveness

Allison Hunter, Deputy School Resource Manager, School of Biomedical Sciences

**Improving Cold Storage at King's College**

Martin Farley, Programmes Facilitator — Laboratories, Department of Social Responsibility and Sustainability, University of Edinburgh

**Cold Storage at the University of Edinburgh: Practical Actions and Developing an Experimental Evidence Base**

## MB2 Designing and Operating Biomedical Research Facilities: UK Experience

Dr Stephen Holmes, Soft Landing Programme Manager, MRC Laboratory of Molecular Biology

**The Medical Research Council Laboratory for Molecular Biology**

## MB3 Designing Material Science Facilities

Professor Lindsay Greer, Former Head, Department of Materials Science & Metallurgy, University of Cambridge and Rebecca Mortimer, Senior Associate, NBBJ Architects

**The Materials Science and Metallurgy Building at the University of Cambridge**

## MB4 Green Chemistry in Laboratories: Substitution and Teaching Aid

Professor James Clark, Director of the Green Chemistry Centre of Excellence, University of York and colleagues

**Green Chemistry in and Beyond the Laboratory**

## MB5 Innovative Ventilation Technologies

Joanna Chamberlain, Head of Environment and Energy, University of Cambridge

**Reducing Energy in Cambridge Laboratories through Demand Controlled Ventilation and Other Means**

Mark Turner, Head of Engineering Services, University of Southampton

**Wind Responsive Fume Extract and Other Measures Reduce Lab Ventilation Energy by Over 50%**

## MB6 Proactive Health and Safety Creates Multiple Benefits

Arthur Nicholas, Health and Safety Advisor, University of Manchester

**How Health and Safety Can Help Lab Effectiveness**

Tony Scott, Director, Health and Safety, King's College London

**Health and Safety at King's**

## MB7 Professional Development of all Research Staff (Academic and Technical)

Dr Janet De Wilde, Head of Researcher Development, Centre for Academic and Professional Development, Queen Mary University London

**Developing all Research Staff to Enhance Research Culture**



# SEPTEMBER 2, MAIN SESSIONS MC: 16.00 — 17.15

## MC1 Designing Laboratory Ventilation Systems

*Mike Dockery, Chair, British Standards Institute Technical Committee on Laboratory Fixtures and Fittings, S-Lab Technical Adviser, and Director, Sui Generis*

**Effective Fume Cupboard and Ventilation Design**

## MC2 Laboratory Equipment Energy

*Martin Wiles, Head of Sustainability, University of Bristol*

**Effective Measurement of Equipment Energy Use and Savings: The University of Bristol's Experience**

## MC3 Refurbished Chemistry Teaching Laboratories

*Ken Collins, Director of Lab-works Architecture*

**University of Auckland, New Zealand — Chemistry Undergraduate Teaching Laboratories**

*Judy Peters, Laboratory Technical Manager, University of Surrey*

**The Joseph Kenyon Laboratory**

## MC4 Managing Clinical and Laboratory Wastes

*John Dwyer, Faculty Superintendent, University of Lancaster*

**Improved Clinical Waste Management at Lancaster**

*Presentation tbc*

## MC5 Minimising Fume Cupboard Energy Consumption

*Robert Douglass, Energy Officer, University of Leeds*

**Ventilation Improvements in the Priestley Teaching Laboratory**

*Dr David Josey, Senior Administrator, University of Warwick*

**Reducing Energy Consumption in Warwick's Department of Chemistry**

## MC6 Remote Laboratory Learning

*Carlos Monzo Sánchez, Lecturer, Open University of Catalonia*

**Practical Experimentation in Online Learning**

*Dr David Hoxley, Programme Leader, LaTrobe University*

**FARLabs: linking schools with universities through Freely Accessible Remote Laboratory experiments**

## MC7 The Need for Multi-Skilled Technical Staff and How to Create Them

*Geoff Howell, Technician Trainee Programme Manager, Department of Engineering, University of Sheffield*

**Sheffield's Professional Technician Training Programme**

*Kelly Vere, Senior Technician/Manager, University of Nottingham*

**Nottingham's Technical Focus Group**



# SEPTEMBER 3, MAIN SESSIONS MD: 11.15 — 12.45

## MD1 Refurbished Laboratories: Minimising Environmental Impact

*Steve Owen, Head of Sustainable Development, Public Health England*

**Using the RICS Ska Assessment Scheme to Guide Refurbishment of 100+ PHE Laboratories**

*Stephanie Chesters, Sustainability Manager, University College London*

**A Ska-based Assessment Framework to Assess Small-Scale Laboratory Refurbishments**

## MD2 Rethinking Chemical Containment

*Dr James Haley, Principal Chemical Safety Officer, and Karin Parchment, Project Manager, The Defence Science and Technology Laboratory (DSTL) of the Ministry of Defence*

**The DSTL's £20m Chemical Facility — Identifying and Learning from Best Containment Practices**

## MD3 Rethinking Technical Support: A Key Element in University Modernisation

*Terry Croft MBE, Director of Operations, Faculty of Science, and Director of Modernisation, University of Sheffield (which has a new HEFCE project on technical career pathways for which partners are being sought)*

**A Strategic Approach to Technical Support: Redefining Career Structures and Roles**

*Steve Taylor, Technical Manager, and Ceri Heidrich, Technician, Faculty of Education, Health and Sports Sciences, University of Derby*

**How a Unified Technical Structure Improves Performance and Benefits Students**

## MD4 Space for Innovation

*Paul Jansenswillen, Workplace Solutions R+D Lead, Pfizer*

**Next Steps in Bio Innovation: MIT Lab Central and Other Developments**

## MD5 STEM Facilities at King's

*Christopher Mottershead, Vice-Principal (Research & Innovation) and Ian Caldwell, Acting Director of Space Management, and formerly Director of Estates, King's College, London*

Elaboration and Q&A/discussion on the earlier keynote: **STEM Strategies and Support at King's College**

## MD6 The Connected Laboratory: Using Smart Laboratories as Teaching Vehicles

*Dr Johann Siau, Principal Lecturer, University of Hertfordshire*

**The Smart Systems Laboratory: Integrating Embedded Systems, Tablets, Smart Phones and Touch-enabled Displays for Research and Teaching**

*Dr David Tann, Head, Department of Urban Engineering, London South Bank University*

**Showcasing Intelligent Energy Solutions in the Centre for Efficient and Renewable Energy in Buildings**

## MD7 The Pirbright Institute

*Dr Michael Johnson, Head of Engineering and Estates, and Alan Garmonsway, Change Director, The Pirbright Institute*

Elaboration and Q&A/discussion on the earlier keynote: **The New Pirbright Institute: Managing Big Projects and Using Them to Drive Change** with further inputs from the contractors, Aecom and Shepherd



# SEPTEMBER 2, BRIEFING SESSIONS BA: 13.20 — 13.50

*Alisdair Orr, Registrar, Science Council*

**The Benefits of Registration to Scientists and Technical Staff and How to Achieve It**

*Vicki Hawkins, UK & Ireland Life Sciences Manager, Schneider Electric*

**Does Your Lab Have the Smartest Scientific Brain in Control? How New Controls and Technologies Can Drive Efficiency, Take Care of Compliance, Reduce Energy, Integrate Disparate Systems and Keep Your Buildings Ahead of the Life Sciences Curve**

*Alan Fox, Director and Lead for Lab & Pharma Design, Building Engineering, AECOM*

**Carbon Equations for Sustainable Science — Lessons from Recent Projects**

*Dr Avtar Matharu, Green Chemistry Lecturer, University of York*

**Chemical Substitution in Laboratories — What Can Be Done and Opportunities for Involvement in a York/S-Lab Awareness Project**

*Ian Moore, School Improvement Adviser for STEM, and Education Adviser for the Design & Construction Industry*

**Effective STEM Teaching for All Education and the Design Lessons for Schools and Universities**

*Andy Evans, Sustainability Manager, VWR*

**Fridges and Freezers — Simple Steps to Improve Energy Efficiency and Reliability**

*Dan Watch, Practice Leader, Principal, Perkins+Will*

**The Latest Ideas in Designing Science Buildings**

*Dr Stephen Holmes, Soft Landing Programme Manager, MRC Laboratory of Molecular Biology*

**Making Soft Landings Work in Practice: The LMB Experience**

*Mike Rollings, Technical Director, Tecniplast*

**A New Approach to IVC Air Distribution — A Multiple Benefit Approach, Saving Space, Costs and Barrier Traffic**

*Gordon Sharp, MD, Aircuity, and Phil Milne Smith, MD, Critical Airflow*

**Using the Aircuity Demand Controlled Ventilation System to Cut Energy Bills by 50% or More**

## OLYMPIC PARK TOUR

The tour leader, Richard Jackson, has two connections to the Park. Firstly, he is currently Director of Sustainability at University College London (UCL), which is developing plans for a new university quarter in Stratford. Secondly, he was previously Sustainability Manager at the Olympic Delivery Authority and therefore played a central role in the Park's development, and the planning for its post-Olympic future. The tour will therefore provide a unique insider's view. The group will leave together at around 1345 on September 3 and take the Jubilee line to Stratford. Barring transport disruptions, the tour will finish on-site at approximately 1630 and participants will make their own way home. A sign-up sheet will be available at the Conference reception.



## SEPTEMBER 3, BRIEFING SESSIONS BB: 11.15 — 11.45

*Alisdair Orr, Registrar, Science Council*

**The Benefits of Registration to Scientists and Technical Staff and How to Achieve It**

*Dr Peter Birkin, Director of Postgraduate Recruitment and MSc Coordinator for Chemistry, University of Southampton, also representing UltraWave*

**Better Cleaning and Water Savings from StarStream Ultrasonic Technology**

*Neil Lane, CEO, Stirling UltraCold*

**Energy and Space Saving Freezer Design Using Stirling Engine Technology**

*Hazel Taylor, Biosecurity Lead, National Counter Terrorism Security Office*

**I2H Schedule 5 Pathogens and Toxins - Your Role in Ensuring their Security and Legal Compliance**

## SEPTEMBER 3, BRIEFING SESSIONS BC: 11.55 — 12.25

*John Trigg, Chair, RSC Automation and Analytical Management Group, and Director, Phasefour-Informatics*

**The Connected Laboratory: Latest Developments in ELNs and Informatics**

*Sophie Kay, Founder and Director, Open Science Training Initiative*

**Enhancing Research Quality and Reproducibility**

*Edward Gill, Sales Manager, Vacuubrand*

**Fluid Aspiration Pumping System for Biological Media**

*Dr Martyn Stenning, Technical Services Coordinator, School of Life Sciences, University of Sussex*

**Sustainable Designs for Controlled Environments at Sussex: Insect Care, Plant Research and LEDs**

### CAPTION COMPETITION COMPETITION 1



Phantom heads, once used to train student dentists (Gordon)



## SEPTEMBER 3, BRIEFING SESSIONS BD: 13.30 - 14.05

*Alisdair Orr, Registrar, Science Council*

**The Benefits of Registration to Scientists and Technical Staff and How to Achieve It**

*Vicki Hawkins, UK & Ireland Life Sciences Manager, Schneider Electric*

**Does Your Lab Have the Smartest Scientific Brain in Control? How New Controls and Technologies Can Drive Efficiency, Take Care of Compliance, Reduce Energy, Integrate Disparate Systems and Keep Your Buildings Ahead of the Life Sciences Curve**

*Andy Evans, Sustainability Manager, VWR*

**Fridges and Freezers — Simple Steps to Improve Energy Efficiency and Reliability**

*Dr Dorothea Mangels, Technical Resources Manager*

**Helium Recovery at the University of Warwick**

*David Crampton, Construction Director, Shepherd*

**How to Ensure your Capital Investment Moves Seamlessly to Operational Licensing as Quickly as Possible**

*Hilary Jeffery, Workplace Strategy Director (with a focus on engineering and pharma), AECOM*

**Lab Design: Innovative Workplace Strategies to Reflect Changing Science Needs**

*Dan Watch, Practice Leader, Principal, Perkins+Will*

**The Latest Ideas in Designing Science Buildings**

*Mike Rollings, Technical Director, Tecniplast*

**A New Approach to IVC Air Distribution — A Multiple Benefit Approach, Saving Space, Costs and Barrier Traffic**

*Gordon Sharp, MD, Aircuity, and Phil Milne Smith, MD, Critical Airflow*

**Using the Aircuity Demand Controlled Ventilation System to Cut Energy Bills by 50% or More**

### CAPTION COMPETITION COMPETITION 2



Antique anatomical snail (MLS)

## SEPTEMBER 3, BRIEFING SESSIONS BE: 14.25 — 15.00

*Becca Dodds, Sales Executive, Analox*

**A 50% Global Increase of O2 Monitoring in Labs. Analox Asks, What has Changed?**

*Daniel Nowakowski, EBRI Laboratories Manager and Senior Research Fellow, Aston University*

**Aston's European Bioenergy Research Institute (EBRI)**

*Alisdair Orr, Registrar, Science Council*

**The Benefits of Registration to Scientists and Technical Staff and How to Achieve It**

*Sarah McCarrick, BREEAM Senior Consultant, BRE Global*

**BREEAM - Update on General Changes and Laboratory Credits**

*Dr Avtar Matharu, Lecturer, Green Chemistry Centre of Excellence, University of York*

**Chemical Substitution in Laboratories — What Can Be Done and Opportunities for Involvement in a York/S-Lab Awareness Project**

*John Trigg, Chair, RSC Automation and Analytical Management Group, and Director, Phasefour-Informatics*

**The Connected Laboratory: Latest Developments in ELNs and Informatics**

*Ian Moore, School Improvement Adviser for STEM, and Education Adviser for the Design & Construction Industry*

**Effective STEM Teaching for all Education and the Design Lessons for Schools and Universities**

*Clint Gouveia, Manufacturing and Test Operations Manager, Agilent*

**Helium Recovery System**

*Matt Harris, Head of Energy and Compliance Division, EEC02*

**Old Lab, New Tricks — Stories from the Frontline of Energy Saving Refurbishments**

*Stephanie Chesters, Sustainability Manager, University College London and others*

**The RICS Ska Scheme for Small Scale Refurbishments and Fit Outs: Laboratory Use**

### CAPTION COMPETITION COMPETITION 1



Hippopotamus skull (MLS)



## SEPTEMBER 3, BRIEFING SESSIONS BF: 15.20 — 15.55

*Alisdair Orr, Registrar, Science Council*

**The Benefits of Registration to Scientists and Technical Staff and How to Achieve It**

*Dr Peter Birkin, Director of Postgraduate Recruitment and MSc Coordinator for Chemistry, University of Southampton, also representing UltraWave*

**Better Cleaning and Water Savings from StarStream Ultrasonic Technology**

*Ashfaq Gilkar, Applications Systems Manager, West Middlesex University Hospital*

**The Connected Health Laboratory: Improving Patient Care and Waiting Times by Point of Clinical Trial Data being 'On Line' in Laboratories**

*Sophie Kay, Founder and Director, Open Science Training Initiative*

**Enhancing Research Quality and Reproducibility**

*Neil Lane, CEO, Stirling UltraCold*

**Energy and Space Saving Freezer Design Using Stirling Engine Technology**

*Hazel Taylor, Biosecurity Lead, National Counter Terrorism Security Office*

**I2H Schedule 5 Pathogens and Toxins - Your Role in Ensuring their Security and Legal Compliance**

*Dr Colin Dolphin, Senior Lecturer in Biochemistry, King's College London*

**A Modular Sample Management System that Complements Electronic Laboratory Notebooks**

*Terry Croft MBE, Director of Operations, Faculty of Science and Chris Smith, Head of IT and Communications, University of Sheffield*

**A New HEFCE Catalyst Project on Improved Career Pathways for Technical Staff: How Universities Can Get Involved**

*Stephanie Chesters, Sustainability Manager, University College London*

**The RICS Ska Scheme for Small Scale Refurbishments and Fit Outs: Laboratory Use**

*Susan Wright, Head of Southern Universities Purchasing Consortium (SUPC)*

**Securing Best Value Laboratory Procurement**

### CAPTION COMPETITION COMPETITION 1



Stuffed bird of paradise (MLS)

## CAPTION COMPETITION

At our 2013 Conference in the University of Liverpool Central Teaching Laboratory we asked delegates to provide a humorous caption to the prized exhibit of three skeletons (from left, Neanderthal, Homo ergaster aka 'Lucy', and Australopithecus). We've selected just a few of the many fantastic entries below. We invite entries this year for the four photos of objects from the Gordon Museum and Museum of Life Sciences (MLS) on King's Guy's Campus that are reproduced on preceding pages. The museums can be visited in the Conference Tour(s) on September 3 PM.



*We're still waiting for sustainability initiatives to be implemented in our labs (Martin Farley)*

*Neanderthal to the other two, 'does my brow look big in this'? (Malcolm Holley)*

*Irene works the apprentices really hard (Chris Hunt)*

*A nutrition and dietetics experiment that went too far (Allison Hunter)*

*The need for S-Lab succession planning is becoming urgent (Michelle Jackson)*

*If only we knew about S-Lab before, we may still have been here! (Audra Jones)*

*They work you to the bone here (Dermot McGrath)*

*Senior management meet to consider the implications of sharing resources (John Stephens)*

*I thought you said the buffet was on the first floor (Helen Vaughan)*

*Nylon t-Shirts are not biodegradable (Alan Wood)*

*This diet is killing me (Elizabeth Wood)*



# EXHIBITION

All the following copy has been provided by the exhibitors.

## Sponsors - See Conference Folder for More Information

**VWR International** <https://uk.vwr.com/app/Home>

VWR International offer a wide range of products and services which enable our customers to find the most sustainable solution to their specific requirements.

**Waldner** [www.waldner.co.uk](http://www.waldner.co.uk)

Waldner specialises in state of the art Laboratory Furniture, Fume Cupboards and Smart Controls.

**AECOM** [www.aecom.com](http://www.aecom.com)

AECOM is a global provider of professional technical and management support services.

**Critical Airflow** [www.criticalairflow.com](http://www.criticalairflow.com)

Critical Airflow specialises in laboratory control and critical airflow applications, including the Aircuity demand-based ventilation system.

**Perkins + Will** [www.perkinswill.com](http://www.perkinswill.com)

Perkins+Will is an international design firm that has created innovative and award-winning designs for the world's most forward-thinking clients since 1935.

**Schneider Electric** [www.schneider-electric.com/site/home/index.cfm/uk](http://www.schneider-electric.com/site/home/index.cfm/uk)

A global specialist in energy management with proven expertise in life sciences solutions.

**Shepherd**

Shepherd creates, engineers and manages environments that work brilliantly.

## Exhibitors in collaboration with VWR

**Coolectric** [www.myliebherr.co.uk](http://www.myliebherr.co.uk)

LIEBHERR is a globally represented, privately owned company manufacturing a large range of refrigeration models including a number of models specifically designed, built and tested for the Lab / Scientific / Medical markets.

**Eppendorf** [www.eppendorf.co.uk](http://www.eppendorf.co.uk)

Eppendorf is a leading life science company that develops and sells instruments, consumables, and services for liquid handling, sample handling, and cell handling in laboratories worldwide.

**GenLab** [www.genlab.co.uk](http://www.genlab.co.uk)

GenLab designs and manufactures a range of industrial ovens, laboratory ovens, incubators and associated thermal products.

**LaboGene** [www.labogene.com](http://www.labogene.com)

LaboGene introduces the new Scanlaf Mars Silence, the new biosafety cabinet that epitomises the ultimate in design, innovation and energy saving technologies.

**Vacuubrand** [www.vacuubrand.com](http://www.vacuubrand.com)

Vacuubrand manufactures innovative chemistry diaphragm pumps and control systems for the chemistry lab.



# EXHIBITION

## Other Commercial Exhibitors

### **Austin** [www.austin.co.uk](http://www.austin.co.uk)

Austin is a provider of multi-disciplinary design, engineering and construction management solutions focusing on the planning, design and construction of complex scientific teaching and research facilities.

### **Boulting Environmental Services** [www.besltd.org](http://www.besltd.org)

We excel in the design and construction of cleanrooms, laboratories and other sophisticated environments and provide a full range of services including design and consultancy, construction, commissioning and validation.

### **EECO2** [www.eeco2.co.uk](http://www.eeco2.co.uk)

EECO2 provide cost effective, energy and emission reduction solutions from initial opportunity identification through implementation and verification of savings delivered globally.

### **KNF** [www.knf.com](http://www.knf.com)

KNF Lab offer a wide range of general purpose and chemically resistant diaphragm pumps and systems suitable for numerous applications around the laboratory.

### **Panasonic** [www.panasonic-biomedical.co.uk](http://www.panasonic-biomedical.co.uk)

Panasonic Biomedical Sales Europe BV supply, service and support temperature controlled laboratory products.

### **Sychem** [www.sychem.co.uk](http://www.sychem.co.uk)

UK representatives for Tuttnauer, providing a comprehensive range of bench top, vertical, carriage loading and bulk floor loading steriliser to clients that require a high level of sterilisation.

### **Tecniplast** [www.tecniplastuk.com](http://www.tecniplastuk.com)

Tecniplast is the world leading company in the Lab Animal Industry in designing, manufacturing and distributing patented equipment for laboratory animals since 1949 with the most complete product portfolio of the industry.

### **Triple Red** [www.triplered.com](http://www.triplered.com)

Triple Red distributes laboratory equipment and consumables providing expertise right through from your purchase to offering a UK-wide team of qualified service engineers.

## Professional Development and Registration Bodies

On the afternoon of September 3 we will be collaborating with the Science Council and a number of bodies providing registration to their Chartered Scientist, Registered Scientist and Registered Science Technician Chartered schemes to provide information on them, and 1:1 personal guidance sessions about how to achieve them. The sessions can be booked at the Conference Reception desk. These registration and professional bodies will also have stands:

### **HEaTED** [www.heated.ac.uk](http://www.heated.ac.uk)

HEaTED is a membership organisation dedicated to supporting Professional Development of Technical staff from all disciplines and specialisms in Higher Education and related fields.

### **Institute of Science and Technology** [www.istonline.org.uk](http://www.istonline.org.uk)

The Institute of Science & Technology is the professional body for specialist, technical and managerial staff.

### **Science Council** [www.sciencecouncil.org](http://www.sciencecouncil.org)

A membership organisation that brings together learned societies and professional bodies across science and its applications.





## RECOGNISING LABORATORY EXCELLENCE

The **Awards** scheme covers any aspect of laboratory design, operation and management. The 2014 shortlisted applications are listed right. Most of them are the subject of presentations at the Conference.

The 2015 Awards will open for applications in September 2014.

### NEW LABORATORY BUILDING - RESEARCH

**ASTON UNIVERSITY** - European Bioenergy Research Institute  
**CARDIFF UNIVERSITY** - Hadyn Ellis Building  
**MEDICAL RESEARCH COUNCIL** - Laboratory of Molecular Biology  
**NEWCASTLE UNIVERSITY** - Institute of Neurosciences Extension  
**OKLAHOMA MEDICAL RESEARCH FOUNDATION** - Research Tower  
**SINGAPORE NATIONAL RESEARCH FOUNDATION** - CREATE Campus  
**UNIVERSITY OF CALIFORNIA, BERKELEY** - Li Ka Shing Center  
**UNIVERSITY OF EDINBURGH** - Roslin Institute  
**UNIVERSITY OF HULL** - Allam Building

### NEW LABORATORY BUILDING - TEACHING/MIXED

**BLACKFEET COMMUNITY COLLEGE, MONTANA** - Math/Science Building  
**COVENTRY UNIVERSITY** - Engineering and Computing Building  
**JOHN HOPKINS UNIVERSITY** - Undergraduate Teaching Laboratories  
**UNIVERSITY OF BRADFORD** - STEM Centre  
**UNIVERSITY OF CAMBRIDGE** - Materials Science and Metallurgy Building  
**UNIVERSITY OF SCRANTON** - Loyola Science Center

### REFURBISHED LABORATORIES

**ANGLIA RUSKIN UNIVERSITY** - Multi-Functional Science Teaching Laboratory  
**CARDIFF UNIVERSITY** - Electrical and Integrated Engineering Teaching Laboratory  
**UNIVERSITY OF AUCKLAND** - Undergraduate Chemistry Teaching Laboratory  
**UNIVERSITY OF SURREY** - Joseph Kenyon Laboratory  
**UNIVERSITY OF SUSSEX** - School of Life Sciences Laboratories  
**YORK ST JOHN UNIVERSITY** - Psychology Laboratory Suite

### LABORATORY EFFECTIVENESS

**CENTER FOR DISEASE CONTROL, USA** - Laboratory Freezer Challenge  
**QUEEN'S UNIVERSITY BELFAST** - Chemical and Equipment Database  
**SPIROGEN** - Effective Use of Equipment and Space  
**UNIVERSITY COLLEGE LONDON** - Chemical and Equipment Database  
**UNIVERSITY OF ABERDEEN** - Promoting Laboratory Efficiency and Sustainability  
**UNIVERSITY OF MINNESOTA** - A Lean and Green Research and Diagnostic Laboratory  
**UNIVERSITY OF SHEFFIELD** - Professional Technician Training Programme

### LABORATORY ENVIRONMENTAL IMPROVEMENT

**AGILENT** - Helium Recovery System  
**KING'S COLLEGE LONDON** - Reducing Cold Storage and Equipment Energy Consumption  
**LANCASTER UNIVERSITY** - Improved Clinical Waste Management  
**UNIVERSITY OF CAMBRIDGE** - Improved Ventilation in the Hutchison/MRC Research Centre  
**UNIVERSITY OF LEEDS** - Environmental Improvements in the Priestley Teaching Laboratory  
**UNIVERSITY OF SOUTHAMPTON** - Wind Responsive Fume Extract  
**UNIVERSITY OF WARWICK** - Reducing Energy Consumption in the Department of Chemistry

## MAKING A DIFFERENCE

**QUEEN'S UNIVERSITY BELFAST** - Student Based Green Lab Teams

**UNIVERSITY OF DERBY** - Keri Heldrich

**UNIVERSITY OF EDINBURGH** - Chancellor's Building Environmental Improvement Team

**UNIVERSITY OF NOTTINGHAM** - Technical Focus Group

**UNIVERSITY OF SHEFFIELD** - Richard Wilkinson

## NEW PRODUCT

**ANALOX** - O2NE+ Oxygen Depletion Monitor

**BANGOR UNIVERSITY** - The CO2 Laboratory

**STIRLING ULTRACOLD** - Stirling Engine Cooled Freezer

**UNIVERSITY OF SOUTHAMPTON** - StarStream Technology

**UNIVERSITY OF STRATHCLYDE** - ULab Equipment Inventory and Booking

**VACUUBRAND** - Fluid Aspiration Pumping System for Biological Media

## TEACHING AND LEARNING

**MASSEY UNIVERSITY, NEW ZEALAND** - Flexible Use of Teaching Laboratories

**OPEN SCIENCE TRAINING INITIATIVE** - Enhancing Research Quality and Reproducibility

**UNIVERSITY OF EDINBURGH** - Improving Confidence in Student Science Teachers

**UNIVERSITY OF YORK** - Green Chemistry Centre of Excellence

## THE VIRTUAL LABORATORY — DATA AND INFORMATICS

**KING'S COLLEGE LONDON** - A Modular LDMS-style Database

**RE-BASE** - A Web-based Database Supporting Scientific Research

**UNIVERSITY OF HERTFORDSHIRE** - Smart Systems Laboratory

**WEST MIDDLESEX UNIVERSITY HOSPITAL** - An Integrated Approach to Clinical Data

## THE VIRTUAL LABORATORY — TEACHING AND LEARNING

**LA TROBE UNIVERSITY, AUSTRALIA** - Supporting Remote Laboratory Learning

**LOUGHBOROUGH UNIVERSITY** - Remote Control of Engineering Equipment

**OPEN UNIVERSITY OF CATALONIA, SPAIN** - Practical Experimentation in Online Learning

**UNIVERSITY OF EAST ANGLIA** - Social Media in Chemistry Laboratories



# S-LAB PUBLICATIONS AND ACTIVITIES

## Guidance

Briefing papers include:

1. Interest-free Funding for Energy Efficient Labs.
2. Understanding Laboratory Energy Consumption.
3. Laboratory Environmental Assessment.
4. Effective and Energy Efficient Cold Storage.
5. Reducing Water Consumption in Laboratories.
6. Waste Minimisation and Recycling in Laboratories.
7. Strategic Approaches to Sustainable Labs.

Other publications include:

1. Carbon, Energy and Environmental Issues Affecting Laboratories in Higher Education.
2. The Impact of Building Design on Laboratory Performance - AstraZeneca's Etherow Building.
3. Sustainable Procurement of Laboratory Equipment.
4. Greening STEM Curricula.
5. Demand Related Ventilation.
6. Sustainable Laboratories - Energy Benchmark Data.
7. The Effective Laboratory - Results of the 2012 S-Lab Awards and Conference.
8. Laboratory Equipment Sharing and Reuse Software Comparison.



*S-Lab analysed 'before and after' user performance and satisfaction in AstraZeneca's Etherow Building*

## Good Practice Cases

These cover many aspects of laboratory design and operations at Belfast, Bradford, Cambridge, Edinburgh, Manchester, Newcastle, Nottingham, Oxford, Queen Mary, and York Universities, plus AstraZeneca, Imperial College, Stanford and the University of California.

## Assessment and Audit

**Laboratory Energy Auditing** - a detailed study of consumption at three life science and two chemistry labs at Cambridge, Edinburgh, Liverpool, Manchester and York Universities plus a 'How To' Guide.

**Laboratory Environmental Assessment Framework** (incorporated into the NUS Green Impact Scheme) and associated **Laboratory Environmental Good Practice Guide**.

**Laboratory Credits** developed for BREEAM.

**IT Carbon and Energy Footprinting Tool** - developed by our sister SustelT project.

## Communities of Practice

Newsletter to almost 2,000 subscribers and as many attendees at 40+ events on all aspects of laboratory design, operation and use. Most presentations from the latter (and from the 2012 Conference) are available via [www.goodcampus.org](http://www.goodcampus.org).

## ACKNOWLEDGEMENTS

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