Call for nominations to STFC’s Science Board, Committees and Peer Review Panels 2014

A number of vacancies have arisen for outstanding individuals to become members of STFC’s committees and panels, as listed below.

This is an annual call and, as a result, membership may commence at different times.

The vacancies have arisen, or will be arising, due to the normal rotation of membership on:

- **Science Board**
- **Global Challenge Programme**
- **The Advisory Panel for Public Engagement (APPE)**
- **The Astronomy Grants Panel (AGP)**
- **Challenge Led Applied Systems Programme (CLASP) Panel**
- **The Computing Advisory Panel (CAP)**
- **The Projects Peer Review Panel (PPRP)**
- **The Innovations Partnership Scheme Panel (IPS)**
- **The Particle Physics Grants Panel (PPGP) - (Theory and Experimental)**
- **The Particle Astrophysics Advisory Panel (PAAP)**
- **The Nuclear Physics Advisory Panel (NPAP)**
- **The Particle Physics Advisory Panel (PPAP)**
- **The Education, Training and Careers Committee (ETCC)**

If you wish to apply or to nominate a colleague please complete our [online form](#).

The closing date for these posts is **Friday 25th April 2014**. Please follow the links above to view each panel’s terms of reference.
Call for nominations to STFC’s Science Board, Committees and Peer Review Panels 2014

**Additional information**

For all committees, members will be appointed for two years with the exception of the PPGP where members will be appointed for three years.

Members of STFC advisory bodies are expected to have expertise across the breadth of their scientific remits, from a range of different institutions. Applicants and nominees should have a strong scientific reputation. See [How do we appoint our committee members](#).

Unless otherwise stated, applications and nominations are sought from members of the particle physics, astronomy and nuclear physics research communities and from the physical and life sciences research communities supported by STFC facilities in both academia and industry. Submissions from scientists who are STFC employees are also welcome.

The Secretary of State is committed to the principle of public appointment with independent assessments, openness and transparency of process and to providing equal opportunities for all, irrespective of race, age, disability, gender, marital status, religion, sexual orientation, transgender and working patterns.

STFC will appoint the best members possible for its advisory bodies but also seeks to ensure that membership reflects the diversity within the relevant research communities and so would particularly welcome nominees from groups traditionally underrepresented on such bodies. STFC welcomes applications and nominations from appropriate experts based outside the UK.

If you wish to apply or to nominate a colleague, please complete the [online form](#). Alternatively, please complete the proforma and email it to Lisa Kehoe.

If nominating, please ensure that the nominee is aware of and agrees to nomination.

The closing date is **Friday 25th April 2014**.

If you require any further information, please contact Lisa Kehoe.
To continue demonstrating the case for investment in science, it is vital that STFC has accurate data on the outputs, outcomes and impacts of our research funding.

STFC does this through ResearchFish, an online system that is used to collect information on the outputs, outcomes and impacts that have arisen from STFC-funded research. This enables thorough reporting, so that we can track the progress of research and ensure value for money, whilst minimising the reporting burden.

Users can enter into ResearchFish details about the publications, collaborations, further funding, technology development, intellectual property and dissemination activities associated with their awards and assign each entry to its relevant award(s). ResearchFish allows the user to view all their grants in one place, and report easily. Users have free access to ResearchFish software, and there are added benefits such as a CV builder, the ability to download research outputs into several formats, thereby making the information available for re-use as appropriate.

STFC already use the system to collect data on impacts arising from grants which we fund in our core areas of astronomy, space science exploitation, and particle and nuclear physics. We also collect data from areas such as Fellowships, Facility Research and Development, High Performance Computing and Project Research and Development.

During the STFC ResearchFish on-line outputs collection system which closed in April 2013, there were over 25,000 submissions across 850 awarded grants.

We have now expanded the scope of awards within the system, and with effect from early 2014, have added Innovation Partnership Schemes, Challenge Led Applied Systems Programme, and Global Challenge awards. We have added these awards to the system and Principle Investigators have been notified by email that their awards are ready for outputs to be added. PIs should note that the invitation will have been sent direct from Researchfish Ltd, on behalf of STFC.

The ResearchFish portal is open throughout the year for update for 2013-14 with the formal submission deadline of 27 March 2014. Users are encouraged to access the system and submit outputs as often as possible over the course of the year to lessen the burden during the formal submission period.

Further information about the ResearchFish system, including the principles of use and a comprehensive user guide may be found at: http://www.stfc.ac.uk/1846.aspx

The ResearchFish website is located at: https://www.researchfish.com/

For further information or to arrange a webinar to provide an overview of the system and process, please contact STFC’s evaluation team on evaluation@stfc.ac.uk
The Impact Awards

The Awards
The Impact Awards recognise those teams that have produced outstanding impact through successful knowledge transfer.

The awards, organised by PraxisUnico, recognise and celebrate the success of collaborative working and the process of innovation: the transformation of knowledge and expertise beyond its creation in higher education, charities and public sector research establishments for the wider benefit of society and the economy.

2014 Award Categories

Business Impact - Achieved
This award recognises projects that have made an outstanding business impact through successful knowledge transfer, where there is evidence of impact delivered.

Business Impact - Aspiring
This award recognises projects that promise to make an outstanding business impact through successful knowledge transfer, but where the impact may still to be fully realised, or is hard to quantify.

Collaborative Impact
This award recognises collaborative projects that leverage the intellectual assets of the research base. Types of projects might include research collaborations or consultancy with business or the public sector and/or knowledge transfer projects involving more than one higher education or research institute.

Why Enter

How to Enter

Important Dates
3 February 2014
First call for entries

28 March 2014
Closing date for entries

13 May 2014
Shortlist announced

12 June 2014
Awards Ceremony and Annual Conference Gala Dinner in Cardiff
Seeing more than before - emerging imaging technologies

The Technology Strategy Board is investing up to £1.25m in feasibility studies to bring emerging imaging technologies closer to commercial use.

This competition will support projects that could enable richer, more wide-ranging information to be gained from imaging, creating new applications and value propositions, with the potential to disrupt existing markets.

Projects must be collaborative and business-led, and the competition is open to all UK-based companies and research organisations. We expect to fund feasibility studies in pre-industrial research, in which a business partner will attract up to 65% public funding of their project costs (75% for SMEs). We expect projects to last up to 12 months, with total costs of up to £150k per project.

This competition opens on 3 February 2014, and the deadline for applications is noon on 2 April 2014.

Key features

• Investment of up to £1.25m in feasibility studies to bring emerging imaging technologies closer to commercial use.
• Programme: Feasibility studies
• Award: Up to £1.25m
• Opens: 03 Feb 2014
• Registration closes: 26 Mar 2014
• Closes: 02 Apr 2014
• Support phone number: 0300 321 4357
• Registration is required to enter this competition. Please note that registration will close 6 days before the competition application deadline.

Register & Apply
UK research is bringing significant improvements in the diagnosis, treatment and prognosis of three of the world’s most common forms of cancer - prostate, cervical and oesophageal.

The research is a major project between four leading UK Universities and three NHS hospital trusts, and will be carried out at the Science and Technology Facilities Council’s (STFC) pioneering ALICE accelerator facility. The goal is to develop new techniques to accurately diagnose the three cancer types much earlier than any current conventional tests. It will also aim to develop a new generation of portable and highly accurate cancer diagnostics instruments.

Funded by the Engineering and Physical Sciences Research Council (EPSRC), the project is led by the University of Liverpool, alongside Cardiff University and the Universities of Lancaster and Manchester. They are working closely with the Royal Liverpool and Broadgreen University Hospitals NHS Trust, The Christie NHS Foundation Trust, and the Lancashire Teaching Hospitals NHS Foundation Trust.

Professor Erica Denton, National Clinical Director for Diagnostics, NHS, said: “This collaboration has the potential to bring significant improvements in patient care and is an excellent example of the kind of world leading, multidisciplinary research we excel in undertaking in the UK and especially at STFC.”
Future of cancer diagnosis looking much brighter thanks to work of UK researchers

Oesophageal cancer has the fastest rise in incidence in the western world, affecting more than half a million people annually world-wide. Prostate cancer affects 10% of males in developed countries, with 30,000 new cases annually in the UK alone. Both cancers can be treated successfully if diagnosed early enough. This view is supported by the results of cervical cancer screening which saves more than 11,000 lives per year, but is an extremely expensive programme to run.

STFC’s ALICE accelerator will play a key role in this project that has two main objectives; to add a new dimension to our understanding of these cancers by comparing results from a range of infrared and terahertz techniques, and then to use these findings to go on to develop a new generation of portable and affordable cancer diagnostics instruments.

The University of Liverpool’s Professor Peter Weightman, who is leading the research, said: “This research could not be carried out efficiently and cost effectively by a number of smaller research groups. This impressive critical mass of scientists and clinicians has the combined experience and expertise to transform our understanding into the diagnosis and successful treatment of these three cancers. In the longer term, if this study reveals features common to all three cancers our results could be significant in the development of treatments for an even wider range of cancers and other diseases.”

Professor Andrea Varro from the Institute of Translational Medicine at the University of Liverpool said, “The instruments on the ALICE accelerator will reveal, in extraordinary detail, the character and chemical processes that underlie the malignant behaviour of these three cancers, which will mean real developments in diagnosis and the development of therapies.”

A light source of unprecedented brilliance, and located at STFC’s Daresbury Laboratory at Sci-Tech Daresbury in Cheshire, ALICE is an R&D prototype for the next generation of accelerator based light sources and is the most powerful source of terahertz light in Europe. The third of its kind in the world, ALICE’s technology will play a major role for significant advancements in fields from healthcare, materials science and sustainable energy.

Using the extremely powerful source of light at ALICE, Professor Weightman and his team will conduct experiments on tissue specimens from all three diseases using a combination of three different infra-red based techniques to reveal the chemical structure of these diseases with unprecedented accuracy. The instrumentation to do this will be developed in collaboration with teams from Cardiff, Lancaster and Manchester universities. The team will then go on to design and build two complementary terahertz instruments and assess their performance against more developed infrared techniques in cancer diagnosis.

Credit: STFC
Applications for the Public Engagement Fellowships Scheme are now open

The aim of the scheme is to contribute to the STFC’s Public Engagement Programme by investing in good communicators with research credibility. They will act as champions or ambassadors for STFC’s science, technology, engineering and mathematics (‘STEM’) work to schools, the media or public audiences.

Public Engagement fellowships are aimed at those with significant research experience who have demonstrated a track record in outreach or communications work. The fellowships will recognise and reward current practitioners and enable them to expand the work they do in public engagement.

Fellowships will buy time for additional or extended communication activities which will have a significant national or regional impact.

A list of current Public Engagement Fellows is available.

Closing date for applications - 07 March 2014 at 16:00

Applications

Both STFC grant-funded researchers and users of STFC facilities are eligible to apply on the Je-S website. Facility users would champion generic facility programmes, linked to work at STFC-funded facilities in the UK or overseas. Topics might include energy research; how neutrons or light sources are used to probe materials, high performance computing, lasers, e-science, etc.

As well as their own wide general research area, other legitimate subjects for activities include current STFC STEM areas in general, the nature of the research process, and ethical and social issues that arise from research and its applications.
Public Engagement Fellowships

We do not wish to be prescriptive about the activities carried out by fellows, but the following are examples of the kind of work which might be expected or encouraged:

• Working with mass media organisations, perhaps by inspiring or contributing to major science features, series or columns in popular print media, broadcasts, etc.

• Producing or advising on a major web-based or multimedia resource, possibly including webcasts, podcasts, blogs, etc.

• A major series of public lectures.

• Working with science centres or museums to develop new ways of presenting STFC STEM work.

• Working with the educational sector, including Science Learning Centres, to help teachers or curriculum developers to embed STFC STEM areas in their programmes.

• Working with under-represented audiences such as girls and young women in engineering and physics, groups in areas geographically remote from STEM activity and underperforming schools

We will not support proposals which are solely aimed at writing a popular science book, but will consider proposals in which the production of a book is part of a larger project.

There is a two-stage process. Short-listed applicants will be interviewed in May 2014, and funding decisions would be known very soon after interviews. Fellowships are normally given in the form of research grants to approved Research Organisations eligible to hold research grants.

For further details, please read the notes for guidance.

Contacts

Applicants are encouraged to telephone the office for further information:

Neville Hollingworth
STFC Public Engagement Team
Polaris House
North Star Avenue
Swindon
SN2 1SZ
Tel: +44 (0)1793 442175
Lift-off for Billion-Star Surveyor

UK scientists and engineers are celebrating today after the successful launch into space of the European Space Agency’s GAIA mission that will revolutionise our understanding of the Universe. Once Gaia is operational in 2014 the UK will be in the front line in processing its images, which will be the key to the discovery of many thousands of transient stars and supernovae: these will be made immediately available to schools and the public for their participation in the research.

Blasting off on a Soyuz rocket from Europe’s Spaceport in Kourou, French Guiana, Gaia is destined to create the most accurate map yet of the Milky Way. By making accurate measurements of the positions and motions of 1% of the total population of roughly 100 billion stars, it will answer questions about the origin and evolution of our home Galaxy.

The UK Science and Technology Facilities Council (STFC) helped the set-up of the data applications centre and STFC’s current support involves the UK exploitation of the scientific data to be yielded from the mission. UK participation in the mission itself has been funded by the UK Space Agency and scientists and engineers from around the UK have played key roles in the design and build of Gaia.

Dr Peter Allan, Head of the Space Data Division at STFC’s RAL Space said: “We are incredibly pleased that the launch went off without a hitch. This was the smoothest launch I have ever seen. Once Gaia is up and running, early in 2014, we expect that the photometric data processing software to which we have contributed as part of the UK-led team will offer the first opportunity ever to precisely measure the brightness of the billion objects that GAIA will see, while contributions from the rest of Europe will chart the positions, distances and movements of those one billion stars. This will let us understand our true place in the Milky Way, our home galaxy. In addition we expect to discover hundreds of thousands of new celestial objects, such as extra-solar planets, brown dwarfs, supernovae, asteroids, and of course, things that we have not even imagined.”

Professor Gerry Gilmore, from the University of Cambridge and UK Principal Investigator for Gaia, said: “Gaia will be a revolution in our knowledge of the local Universe. For the first time we will have a fair sample of what is out there, where it is, how it is moving, how unseen (dark) matter is distributed, where and when stars formed and where and when the chemical elements of which we are made were created. Gaia will make a huge step towards understanding how the Milky Way came to be formed, and evolved into what we see today. For the first time, we will be able to see the Milky Way in 3-D. In fact in 6-D – where stars are, and how they are moving.”

Gaia is now en route towards an orbit around a gravitationally-stable virtual point in space called L2, some 1.5 million kilometres beyond Earth as seen from the Sun.

A four-month commissioning phase will start on the way to L2, during which all of the systems and instruments will be turned on, checked and calibrated. Then Gaia will be ready to begin its five-year science mission.

Once Gaia starts routine operations astronomers will have the challenge of dealing with a flood of data. Even after being compressed by software, the data produced by the five-year mission will fill over 30 000 CD ROMs. This data will be transmitted ‘raw’ and will need processing on Earth to turn it into a calibrated set of measurements that can be freely used by the astronomical community. The cutting edge computer technology developed at the Cambridge Data Processing Centre will be key to this process.
The STFC Innovations Club are hosting an event on the CTA to discuss current developments and future R&D needs in the key areas of CTA, the largest and most sensitive gamma-ray telescope in the world to be built on two sites, one in the northern hemisphere and one in the south.

The £130M CTA arrays will provide a deep insight into the non-thermal high-energy universe. CTA will comprise several tens of Imaging Atmospheric Cherenkov Telescopes (IACTs) operated in array-mode and divided into three size classes: large, medium and small telescopes. The total reflective surface could be up to 10,000 m² requiring unprecedented technological efforts. It is being planned and designed by an international collaboration of engineers, astronomers, physicists, industrialists and policy makers from 28 nations, and will operate as an open observatory supporting a wide astrophysics community.

CTA is currently in the preparatory design stage (2010-2014) and new technology and progress in fundamental engineering science are both required. These breakthroughs can only happen with the R&D collaboration of academic and industrial partners offering expertise in fields such as electronics, engineering and computing infrastructure.

Areas of particular relevance include:
- Mechanical, electrical, civil and power engineering
- Mechatronics (automation, servomechanics, sensing and control systems)
- Optics (mirror structures, reflective surface, light concentrators)
- Electronics (PCB manufacture & population, automated testing)
- Electrical connectors
- Flexible protective covers
- Cooling systems
- Photosensors
- Computer infrastructure

This workshop aims to pull together the interest from both the academia and industry in order to facilitate knowledge exchange (KE) between STFC-funded researchers working on CTA and industry with a view to exploiting synergies between CTA research and industry.

The workshop will further highlight funding opportunities to support KE relationships around the CTA project as well as provide an opportunity to hear a general update on the status of CTA and the anticipated UK role in the project. In addition there will be a poster session detailing industry relevant work carried out by the university research groups.

For more information contact:
Dr Vlado Skarda, STFC (vlad.skarda@stfc.ac.uk) or
Professor Paula Chadwick (p.m.chadwick@durham.ac.uk).

To register go to:
http://www.eventbrite.co.uk/e/cherenkov-telescope-array-cta-stfc-knowledge-exchange-workshop-tickets-10200799867?aff=eac2

Photo courtesy of G. Pérez, IAC, SMM
Manufacturing Electronic Systems of the Future

TSB are launching two brand new competitions for ‘Manufacturing Electronic Systems of the Future’ The first is based on collaborative R&D proposals and the second is based on feasibility studies with up to £4.75 million being made available.

The competitions open for both projects on 17th February 2014. The deadline date for all registrations is 26th March 2014 and a briefing event for potential applicants will be held in London on 26th February 2014.

A multi-$billion tier-1 supplier with manufacturing and product development presence in the Americas, Europe and Asia, is seeking to collaborate with innovative UK organisations in the electronics sector across much of the scope identified in this competition. Should this be of interest, then a representative of that company will be present at the competition briefing event on 26 February 2014.

TSB look forward to working with you in creating new innovation!

Technology Strategy Board
Driving Innovation
28th January 2014 - For the first time all internet users across the globe will be able to view recent scenes and events on Earth filmed from Space day and night. Two new cameras, one high-definition and one medium-resolution have been installed on the Russian segment of the International Space Station on 27 January 2014 after a spacewalk lasting more than six hours. The cameras were designed, built and tested by UK based RAL Space at STFC’s Rutherford Appleton Laboratory for the ‘Urthecast’ project that will start streaming near-real-time video footage from the International Space Station in Spring 2014.

When logged in to UrtheCast’s near-live feed which is being installed on the Russian module of the International Space Station you will be able to view Earth through their socially integrated, interactive web platform. All you will need to view the footage is an internet connection and a computer, tablet, or smartphone.

Professor Richard Holdaway, Director of STFC’s RAL Space, said: “This programme is a paradigm-shift in social media from space. For the first time ever we will be able to view what’s happening on Earth, from Space, on any device that has the internet. It’s thanks in part to the efforts of the UK team of engineers and scientists here in Oxfordshire. The RAL Space Imaging Systems team has designed, built and tested the two cameras - one high-resolution HD-quality video camera and one medium resolution camera”.

The medium resolution camera (MRC) is essentially a modified version of an existing earth-observation camera, RALCam-3, that operates in four wavelengths, allowing colour images of the Earth’s surface to be built up. The MRC will be pointed directly down and take continuous images of Earth in 45km swaths at a resolution of 5m per pixel.

The second and most exciting camera is a high resolution video camera (HRC) mounted on a steerable platform. The RAL Space cameras interface with the data handling electronics, built by MDA in Canada, which pass the data through the ISS systems down to the ground where Urthecast make the images available for streaming to their customers and to the public. With a resolution of 1m per pixel individual vehicles could be viewed by this camera.

The HRC can also be controlled to continuously aim at a single point on the Earth’s surface as the ISS passes overhead which allows the HRC to generate a video stream instead of single images.
This will allow people to track natural and man-made changes such as seasonal variations, congestion, natural disasters and deforestation in near real-time and over the course of many months and years. UrtheCast will build a catalogued archive of footage and images for public access, creating a utility for education and environmental awareness.

The cameras will constantly be rolling as the ISS circles the world, 16 times a day. They will capture video and imagery below the Station’s orbit, where approximately 90% of the world’s population lives.

The cameras will traverse latitudes ranging from England, to Chile, and everywhere in between 51 degrees to -51 degrees latitude.

Further information

A narrated animation of events during the spacewalk can be found here: http://www.youtube.com/

You can see an underwater simulation of the Urthecast camera installation here:
http://www.stfc.ac.uk/RALSpace/

Last year’s launch of the cameras to orbit can be seen here:
http://www.urthecast.com/launch/

For the Urthecast blog, see here:
http://blog.urthecast.com/

Urthecast website: http://www.urthecast.com/

For details of RAL Space see here: http://www.stfc.ac.uk/
Deputy Prime Minister Nick Clegg visits STFC Rutherford Appleton Laboratory

The Deputy Prime Minister Nick Clegg and the Minister for Cities, Greg Clark MP were at STFC’s Rutherford Appleton Laboratory on the Harwell campus on Thursday 30 January 2014.

Nick Clegg visited STFC’s ISIS research centre where he saw the brand new ‘ChipIr’ facility. The neutron beam line will replicate the cosmic radiation which interacts with the earth’s atmosphere that can cause disruption to microelectronic devices in aeroplanes, helping manufacturers build more reliable electronic systems. This will in turn make planes safer and the electronics on which we all depend more reliable. ChipIr will be the first of four new instruments to come online as a result of a £21 million investment by the government in 2011 after an initial investment in the UK for the second experimental hall at ISIS (Target Station 2) of £130 million. It is expected to be fully operational later this year.

Professor John Womersley, Chief Executive of STFC said: “The government’s investment in ISIS Target Station 2 is really starting to pay dividends. World leading science is being done in physics, chemistry and the life sciences, with strong connections to business: ChipIr, which the Deputy Prime Minister saw today, will provide industry with a way to test critical electronics against the impact of cosmic radiation – for example aircraft systems and medical devices.”

During his visit Mr Clegg met a number of STFC graduates and apprentices. These two schemes are designed to help young people into careers in science and technology.

Current apprentice Liam Starrett who works on the ISIS neutron scattering facility said: “It’s been fascinating working on ISIS – the work is incredibly varied, from very small circuit boards to much bigger instruments. Also it’s the impact of the work that I do – a piece of kit that I designed for one of the instruments is being used now and could be used for the next 30 or 40 years. It’s amazing to be producing something that is going to be supporting cutting edge science like that, you wouldn’t get that chance anywhere else. If anyone is considering an apprenticeship, I’d say definitely, if you’re given the chance go for it! I’ve never looked back!”

The Minister for Cities, Greg Clark MP was also at Rutherford Appleton Laboratory today to sign the Oxford City deal with Oxford County and City councils, Oxfordshire Local Enterprise Partnership and Oxford University.

The Deputy Prime Minister also held a Q and A session at the Satellite Applications Catapult where Oxfordshire residents were invited to ask Nick Clegg questions. The Catapult is designed to stimulate growth in the UK economy through the exploitation of space.
PraxisUnico Conference 2014: Excellence in Practice

Registration is now open for this year’s PraxisUnico conference which is being held from 12-13 June at the Mercure Cardiff Holland House Hotel, Cardiff.

PraxisUnico conferences are powerful networking events, providing delegates with an opportunity to connect directly with professionals from academia, business and government – from all around the world.

Programme
For universities and research organisations to continue to play a leading role in driving the economy out of recession, it is important to recognise and share best practice that achieves real impact, both regionally and nationally. Our conference this year provides a range of sessions that promote knowledge sharing, innovation fostering, and a better understanding of continual change within business and university environments. Through identifying and promoting ‘excellence in practice’ in a range of areas - some relatively new, some more established – we hope all delegates will leave with practical suggestions that can be applied to their day-to-day work.

The programme includes a choice of ten parallel sessions which have been structured to appeal to all levels across a research commercialisation workforce – from new employees to senior directors. Click here for further details.

New for 2014 – Site Visits
We’re delighted to offer conference delegates the opportunity to take part in site visits on the afternoon of 11 June. A place at the conference must be booked in order to participate.

Poster Competition
Once again there will be an opportunity for delegates to showcase their work by entering the poster competition.

Topical Issues
This is your opportunity to talk to a group of like-minded people about the things that are important to you. A selection of topical issues, as suggested by conference delegates, will be discussed in designated interest groups over lunch on Friday 13 June. Email your suggested topics to: conference@praxisunico.org.uk

Confirmed speakers
We are delighted to be able to confirm the first of our keynote speakers – Professor Chris McGuigan, Professor of Medicinal Chemistry at the School of Pharmacy and Pharmaceutical Sciences, Cardiff University and Chairman of the Board and Scientific Director of the Life Sciences National Research Network Wales.

The Impact Awards will be held at the conference gala dinner on Thursday, 12 June at the National Museum Cardiff. The Impact Awards, organised by PraxisUnico, recognise and celebrate the success of knowledge transfer. Please see the Impact Awards website for further information.
The proposed technology can screen compounds, polymers and nanoparticles in a high throughput configuration to identify chemicals and drugs with potential biomembrane permeability and toxicity. The device consists of a miniaturised microfluidic flow system comprising a phospholipid sensor element that can be tailored to respond to selected chemicals.

Each assay takes a couple of minutes and the technology allows for concurrent multiple screenings. This technology is more biologically relevant, faster and cheaper than current in silico methods for measuring biomembrane activity. As such, it has the potential to greatly reduce the number of compounds entering animal studies that will fail due to undesirable biomembrane toxicity.

We are seeking input from industry experts to make our model viable for everyday use in industry applications. We would like to know

(i) what parameters are used regarding biomembrane activity;
(ii) what particular structural features of a molecule are of interest with respect to its interaction with a biomembrane; and
(iii) what are the performance specifications required of the device.

We are seeking collaborations with partners able to provide novel reagents or compounds with preclinical/clinical data available to test in the model thus enlarging the technology’s performance portfolio.

For more information and to contact the Solution provider visit: www.crackit.org.uk/share/crackitsolutions/biomembrane_toxicity
Figures from across the science community and beyond came together at the Institute on 30 January to express their commitment to making 2015’s International Year of Light (IYL2015) a success.

The year came about via a UN resolution in December 2013 that marked a culmination of three years’ work to bring the international year into being. It has been co-sponsored by 35 countries around the world, and will involve participation in many more. The international committee will run a number of cornerstone projects while encouraging national committees to inspire celebrations at a more local level.

Speaking at the roundtable discussion, Prof. John Dudley, president of the European Physical Society and chairman of IYL2015, said: “There’s never been an international year that’s been so multidisciplinary in its scope. We have a resource base that’s enormous, but we have to bring it all together somehow around our small number of goals.”

To collaborate in successful planning for IYL2015, there were representatives from the Science Museum, the Royal Institution, a range of learned societies, scientific publishers like *Nature Photonics* and *Physics World*, a selection of research centres such as the Central Laser Facility and Diamond, and universities such as Imperial College London and the University of Glasgow.

They were joined at the meeting by others representing institutions from beyond the science community, such as Public Health England and the London School of Economics. Beth Taylor, the IOP’s director of communications and international relations, chaired the meeting to share the over-arching objectives for the year.

Highlighting the importance of light and light-based technologies, IYL2015 will see partners come together to promote the importance of light for quality of life and encourage action against light pollution, while incorporating the broader aims of sustainable development, education and empowerment of women.

While the national committees are forming, the international committee is already planning its first tranche of materials, which include promotional posters in the UN’s six international languages and a book of 100 suggestions for activities that can be organised to promote IYL2015.

A selection of the international committee’s cornerstone projects was shared by Professor Dudley, including i-Light, an international competition calling on smartphone users to share photographs of interesting optical phenomena, and a photonics day, when photonics labs around the world will open their doors to public visitors.

Representatives at the meeting agreed to help comprise the UK’s national forum, which will feed ideas into a committee that coordinates IYL2015 in the UK. It is anticipated that the make-up of the national committee will be announced in the next couple of months.

If you would like further information, particularly if you would like to get involved, please email physics.society@iop.org.
February 3rd 2014 - ISIS has signed a Memorandum of Understanding with the European Spallation Source (ESS) concerning an extensive programme of technological collaboration, ranging from accelerator diagnostics to data analysis.

The newly agreed technical collaboration will open the door for the mutual development of components and instrument technologies, as well as the exchange of research and technical staff. Importantly, it is expected to help both facilities better leverage development costs.

Owned and operated by STFC the ISIS pulsed neutron and muon source at the Rutherford Appleton Laboratory in Oxfordshire is a world-leading centre for research in the physical and life sciences and today Europe’s only pulsed spallation source.

The ESS is being developed in Lund, Sweden and construction is due to start this year.

“By using common technologies we can reduce costs and risks for both ESS construction and ISIS upgrades, and in future operations,” says Robert McGreevy, Director of ISIS.

The United Kingdom plays an important role within the European neutron science community, as home to ISIS, but also as a founding member of the Institut Laue-Langevin in Grenoble, France, a leading reactor based neutron source. ESS is a next generation spallation neutron source, and will build upon the pioneering work done at ISIS.
External Innovations Team and Innovations Club

The External Innovations team manages the activities that aim to realise the impacts and benefits that flow from STFC’s investments in science and technology towards commercialization through one to one brokering, events and a range of funding schemes.

If you wish to contact the teams for more information please see the following contacts and email addresses.

Innovations club: innovationsclub@stfc.ac.uk
IPS: ipsfunding@stfc.ac.uk
For Tender Opportunities: tenderopportunities@stfc.ac.uk

External Innovations – Global Challenges - International Tender Opportunities

Penny Woodman Head of External Innovations
Tel: +44 (0)1793 442 014 Email: penny.woodman@stfc.ac.uk

Phillip Tait External Innovations Programme Manager
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The Innovations Club newsletter contains a selection of articles drawn from our partner organisations that we think you will find interesting. We welcome your comments innovationsclub@stfc.ac.uk