EURAXESS LINKS ASEAN

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Table of Contents

1. MEET THE RESEARCHER: ICRES – JOINING FORCES IN THE FIGHT TO COMBAT CHIKUNGUNYA FEVER

Chikungunya fever is a viral illness that is transmitted to humans by the bites of Aedes mosquitoes causing severe and often incapacitating joint pain in infected patients. With large-scale outbreaks of Chikungunya fever regularly occurring in many parts of the world, the vulnerability of the world's population to emerging infectious diseases spread by insects is apparent. A team of researchers from leading institutions across the EU and their global partners are now searching for a long-term solution in the combat of this viral illness. ICRES – short for Integrated Chikungunya Research – aims to develop a vaccine ready to enter clinical trials. The project is funded under the EU's 7th Framework Programme.

EURAXESS Links ASEAN has interviewed two of the project partners of this multinational research consortium. Prof John Fazerkely is Director of The Pirbright Institute in the UK and coordinator of ICRES. His colleague Dr Jamal I-Ching Sam is a researcher at the Department of Medical Microbiology in the Faculty of Medicine in University of Malaya in Malaysia.

Q: Prof Fazakerley, your institution is the coordinating body for the ICRES project supported by the European Union under the Health Cooperation Work Programme of the 7th Framework programme. Can you tell us a bit about the research that is being conducted in this project?

A: *The current chikungunya epidemic rose to prominence in 2005/6 following infection of >250,000 people on La* Réunion. *The virus rapidly spread to other islands in the Indian Ocean, India and SE Asia. Chikungunya cases in returning travellers have been reported in other parts of the world including Europe. In summer 2007 a traveller from India to Italy initiated a locally transmitted outbreak which included one death from encephalitis. The mosquitoes transmitting this infection are spreading and increasing in Europe and could spread as far north as the British Isles. There are diagnostics tests, these require standardisation; the pathogenic mechanisms leading to myalgia, arthralgia, rare encephalitis and chronic arthritis are unknown precluding rational therapeutic intervention; there are no antivirals and there is no*

The Aedes Albopictus (tiger mosquito), carrier of the Chikungunya virus

What is ICRES?

ICRES is an acronym for Integrated Chikungunya Research and is a collaborative project supported by the European Union under the 7th Framework programme. Since 2005 Chikungunya fever has affected millions of people producing a high fever and a debilitating arthralgia which can persist for months and progress to chronic arthritis. Chikungunya virus (CHIKV) has been associated with periodic outbreaks of human disease and is spread by mosquitoes. This project integrates the expertise of EU laboratories with a long and strong track record of research on alphaviruses with EU laboratories that started work on CHIKV following the outbreak in 2006 in La *Réunion,* and with laboratories from SE Asia working on this virus. The project is generating new molecular and cellular tools for research and applied studies and developing a vaccine ready to enter clinical trials.

Further information: ICRES

licensed vaccine. Our principle research objectives are:

1. *Generate new molecular and cellular tools for research and applied studies including high-throughput screening and vaccines*
2. *Standardise, quality assure and distribute key diagnostic tests and develop new ones*
3. *Determine key virus genetic changes across time, geographical regions and species*
4. *Discover interactions between virus and human cells to inform the rational design of therapeutics*
5. *Determine pathogenesis of the acute and chronic disease in humans, including whether virus persists in joints, the cell types involved and the relationship to immune responses*
6. *Characterise rodent and non-human primate models of acute and chronic infection to further study the pathogenesis and to provide models for antiviral and vaccine screens*
7. *Screen libraries of small molecular weight compounds for antiviral activity*
8. *Develop a vaccine which at the end of this project is ready to enter clinical trial*

Q: Prof Fakerzeley, the project unites partners from several countries. Can you introduce the consortium members to us and tell us how the cooperation came about?

A: *The project is a collaboration of The Pirbright Institute, UK; Steinbeis Innovation, Germany; University of Malaya, Malaysia; Université de la Réunion, France; SIgN, A*STAR, Singapore; University of Helsinki, Finland; Commissariat à L'Energie Atomique et aux Énergies Alternatives, France; University of Tartu, Estonia; L'Institut Pasteur, France; Karolinska Institutet, Sweden; University of Bonn, Germany; Centro Nacional de Biotecnologia, Spain; University of Glasgow, UK and Griffiths University, Australia.*

The collaboration came about as a result of the interaction of three networks. Firstly, a group of European research scientists who had been working together for many years, in part funded by other European Union funding on the biology of alphaviruses, a group of viruses which includes CHIKV; secondly, those European research laboratories, predominantly in France, who had been working on other viruses but had diverted their research to CHIKV following the outbreak of chikungunya on La Réunion *in 2006; and thirdly, SE Asian laboratories working on CHIKV as a result of the arrival of chikungunya fever in SE Asia. An application to the EU 7th Framework programme was developed at a meeting of European and SE Asian researchers sponsored by the British High Commission in Singapore in 2009.*

Q: Dr Sam, your laboratory at the University Malaya is participating in the ICRES project. Can you tell us a bit about your team and your role as part of the ICRES project?

A: *Our team comprises Professor Sazaly Abu Bakar, Yoke-Fun Chan and I. We are based at the Tropical Infectious Diseases Research and Education Centre (TIDREC, website: http://tidrec.um.edu.my), in University Malaya, in Kuala Lumpur, Malaysia. For ICRES, we are working on virus evolution and epidemiology. This includes studying the genetic changes in the virus over time, and how different virus strains may adapt differently to the mosquito vector. We are also looking at the clinical epidemiology of the disease in Malaysia; for example, description of outbreaks and clinical manifestations. We are also the co-organisers along with ICRES of Chikungunya 2013, an international conference taking place in Langkawi Island, Malaysia on October 28-30, 2013 (website: http://umconference.um.edu.my/CHIKV2013). We have invited many well-known figures in Chikungunya and alphavirus research, and are looking forward to an exciting and stimulating conference.*

"We have found our European partners to be welcoming, and generous with their time and expertise, in terms of sharing knowledge and technology. It has also been fascinating to be involved in scientific discussions between experts in different fields."

Dr Jamal I-Ching Sam

"Much of what we set out to achieve has been achieved but we are still working on the latter stages of our objectives, the most prominent of which is to develop a pre-clinically validated vaccine for chikungunya so that next time this virus strikes around the world, instead of having millions of clinical cases we will be able to protect the world population."

Prof John Fazakerley

Q: Prof Fazakerley, which roles do the other partners play?

A: *Research in the consortium covers a spectrum of topics including molecular virology, antivirals, diagnostics, pathogenesis, immune responses, vaccines, epidemiology and work on animal model systems to study in vivo pathogenesis and test antiviral and vaccine efficacies. Each partner takes a lead role in a particular area of research. Molecular work is led by the University of Tartu in Estonia, antivirals by the University of Helsinki in Finland, diagnostics by the University of Bonn in Germany, epidemiology by the University of Malaya, pathogenesis by the Pasteur Institute in France, Steinbeis Innovation in Germany and The Pirbright Institute in the UK, immune responses by the University of la Réunion and A*STAR in Singapore, animal model systems by the CEA in France, the Karolinska in Sweden and Griffiths University in Australia and vaccines by the CEA and Karolinska.*

Q: Prof Fazakerley, how important is this international cooperation to the success of the project?

A: *Given the breadth of this project, it is probably beyond the capability and certainly beyond the expertise of any one research centre. We have epidemiological data and clinical samples from the areas affected by chikungunya, including La* Réunion *and SE Asia, and we have expertise in the molecular virology of alphaviruses, virus pathogenesis and vaccinology from world leading research groups. The consortium meets every six months to discuss progress, share results and work out problems.*

Q: Dr Sam, how does the work conducted by the ICRES project team benefit the population here in Southeast Asia? Which applications are planned?

A: *Chikungunya virus is endemic in Southeast Asia, as the Aedes mosquito vectors are widespread. Chikungunya has been causing outbreaks since the 1960s, and causes considerable morbidity. The work of the ICRES team is invaluable in increasing knowledge of this disease, which has been relatively neglected prior to the recent global outbreaks starting in 2004. ICRES work in the areas of diagnostics, antivirals and vaccines would be of particular practical value in this region.*

Q: Prof Fazakerley, the project is supported under the Health Cooperation Work Programme of the 7th EU Framework programme. Was it difficult to apply for this grant?

A: *As with all EU grants, the task of understanding what is required for the grant application at first looks formidable. However, once this was distilled from all the information available, the actual application process was relatively straightforward. The difficulty really was integrating the information and research plans from the different groups from around the world. For this, as coordinator, I used established networks of colleagues with whom I have worked previously but I also travelled to some of the laboratories now part of the consortium to discuss their involvement. There was a lot of writing and many tables to produce. It helps a lot if the organisation has experience of writing and managing EU grants and examples of successful grants are available for guidance.*

Q: Dr Sam, how do you experience the collaboration with European partners?
A: *Our overall experience of this collaboration has been very positive. We have found our European partners to be welcoming, and generous with their time and expertise, in terms of sharing knowledge and technology. It has also been fascinating to be involved in scientific discussions between experts in different fields.*

Q: Prof Fazakerley, what advice would you give to European researchers planning to apply for EU research funding?

A: *Carefully consider the purpose of the consortium, what expertise you want or need and what you don't want or need and then who you want and don't want. It needs to be a carefully considered decision. Each partner needs to bring something different and together the work needs to address the call. Make sure you read the documentation on the application process and pick out the key bits. Pay attention to all aspects of the application, since the application is scored not only on the science but also on social and economic impact and issues such as gender equality. Look at other successful applications and if possible work with someone who has experience of EU grants. Many larger organisations have an EU office. There are also organisations out there that will help write the grants. I haven't used one but I know people who have.*

Q: Dr Sam, what advice would you give to Southeast Asian researchers seeking closer collaboration with Europe?

A: *Southeast Asian researchers should first make themselves visible in their field by publishing in good journals and networking. I think it is important to be clear what you can offer and what you can expect from a potential collaboration. All collaborations work best when mutually beneficial, and when based on openness and mutual respect.*

Q: As scientists which goals are you both still hoping to achieve?

Prof Fazakerley: *The ICRES consortium has made great progress both in the science that we planned and in positioning us as a group or as subgroups to undertake further research on chikungunya and other viruses in the future. Much of what we set out to achieve has been achieved but we are still working on the latter stages of our objectives, the most prominent of which is to develop a pre-clinically validated vaccine for chikungunya so that next time this virus strikes around the world, instead of having millions of clinical cases we will be able to protect the world population. With this in mind, and to discuss the progress that has been made in chikungunya research, we are organising an international meeting on chikungunya on Langkawi Island in Malaysia, from 28 to 30 October 2013. Please see the conference website http://umconference.um.edu.my/CHIKV2013.*

Dr Sam: *I will continue trying to carry out research which challenges me and has meaningful impact on patients and public health. I would like to have a body of work and research students that I can be proud of.*

Thank you very much Prof Fazakerley and Dr Sam!

About the interviewees

Professor John Fazakerley (BSc, MBA, PhD, FSB, FRCPath) is Director of The Pirbright Institute, UK, and an international expert on virus pathogenesis, in particular arboviruses and viral encephalitis. The institute is a world-leading laboratory focussing on research and surveillance to prevent virus diseases of animals and spread of viruses from animals to humans. The institute has major research programmes in virus diseases of livestock, vector-borne virus diseases and avian virus diseases; it has extensive high containment laboratories and animal facilities and hosts the world reference laboratories for rinderpest, foot-and-mouth disease and peste-des-petits ruminants (www.pirbright.ac.uk).

Professor John Fazakerley, Director of The Pirbright Institute, UK

Dr Jamal I-Ching Sam obtained his medical degree from Nottingham University, UK, and completed specialist training in medical microbiology in London in 2004. He returned home to Malaysia, and took an academic position in the Department of Medical Microbiology in the Faculty of Medicine in University Malaya in 2005. His main duties are diagnostic services for the university's teaching hospital, research and teaching. His research interests are Chikungunya virus, enterovirus 71, and respiratory viruses.

Dr Jamal I-Ching Sam, Faculty of Medicine, University Malaya, Malaysia

2. EU INSIGHT

Removing obstacles for long-term stays in the EU: How to make the EU more open to talents

On 25 March 2013, the European Commission presented its proposal for a single new directive which aims at making it easier and more attractive for non-EU students, researchers and other groups to enter and stay in the EU for periods exceeding three months. In combining and improving the current two directives the Commission sets out to remove obstacles facing third-country nationals when planning a long-term stay in the EU – an important step to establish Europe as a world centre for excellence and attract bright minds from outside the EU.

Background and shortcomings

Currently, two directives regulate the migration flows of students and researchers from third-countries: Directive 2005/71/EC (12 Oct. 2005) and Directive 2004/114/EC (13 Dec. 2004). The first one covers the "procedure for admitting third-country nationals for the purposes of scientific research", while the 2004 directive lays down "the conditions of admission of third-country nationals for the purposes of studies, pupil exchange, unremunerated training or voluntary service".

But in 2011, the implementation reports [1] for these two directives revealed profound weaknesses: These shortcomings concern key issues such as admission procedures including visas, rights (including mobility aspects) and procedural safeguards. The current rules are insufficiently clear or binding, not always fully coherent with (and supportive of) existing EU funding programmes (e.g. mobility measures such as Marie Curie or Erasmus Mundus), and sometimes fail to address the practical difficulties that applicants face. Furthermore, the personal scope of the current framework is limited. Therefore, the reports came to the conclusion that amendments and improvements are necessary.

This conclusion is reinforced by the fact that the policy context of today is very different to that in which the Directives were adopted. Human capital is one of Europe's key assets in the context of the Europe 2020 Strategy and the need to ensure smart, sustainable and inclusive growth. Immigration from outside the EU is one source of highly skilled people, and third-country national students and researchers in particular are groups which are increasingly sought after.

The new proposal – Objectives and Amendments

The new proposal does not only address the shortcomings identified in the implementation reports but also the task of the European Union to "develop a common immigration policy aimed at ensuring, at all stages, the efficient management of migration flows, fair treatment of third-country nationals residing legally in Member States, and the prevention of, and

[1] Executive summary of the impact assessment for the Directive 2005/71/EC and Report on the application of Directive 2004/114/EC.

enhanced measures to combat, illegal immigration and trafficking in human beings", as stated in Article 79 (1) of the 'Treaty on the Functioning of the European Union'.

Specific objectives were identified in light of the problems outlined above:
• to improve the conditions of admission by better linking obtaining the relevant authorisations and improving decision-making processes for these authorisations;
• making provisions clearer and binding for the other groups they apply to;
• to strengthen the link between provisions on Union programmes including mobility measures such as Erasmus Mundus and Marie Curie Fellowships;
• to improve procedural guarantees, such as time limits for decisions on applications (60-day time limit for Member States authorities);
• to improve access to seek employment and the labour market, both for students during their studies as well as to give researchers and students the possibility to remain on the territory under certain conditions after finishing their studies or research to identify job opportunities (although this will not amount to an automatic right to work, as granting a work permit remains a national responsibility);
• to facilitate intra-EU mobility (through simpler and more flexible rules);
• to set out coherent provisions ensuring the protection of au pairs and remunerated trainees (who are not yet covered by the existing EU legislation).

What next?
The proposed Directive which is presented in the form of a recast now needs to be discussed and agreed upon by the European Parliament and the Council of the EU. The Commission hopes for the new rules to take effect as of 2016.

Sources:
(1) "Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the conditions of entry and residence of third-country nationals for the purposes of research, studies, pupil exchange, remunerated and unremunerated training , voluntary service and au pairing" (2013/0081 (COD)).
(2) "Commission Staff Working Document: Executive Summary of the Impact Assessment *Accompanying the document* Proposal for a Directive of the European Parliament and of the Council on the conditions of entry and residence of third-country nationals for the purposes of research, studies, pupil exchange, remunerated and unremunerated training, voluntary service and au pairing; Recasting and amending Directives 2004/114/EC and 2005/71/EC" (COM(2013) 151 final; SWD(2013) 77 final).
(3) "Treaty on the Functioning of the European Union, Article 79 (1)".
(4) European Commission: Press Release "Making the EU more attractive for foreign students and researchers", 25 March 2013.

3. NEWS & DEVELOPMENTS

a) European Union

AMS experiment measures antimatter excess in space

The international team running the Alpha Magnetic Spectrometer (AMS) today announced the first results in its search for dark matter. The results presented by AMS spokesperson Professor Samuel Ting in a seminar at the European Organization for Nuclear Research (CERN) are to be published in the journal Physical Review Letters. They report the observation of an excess of positrons in the cosmic ray flux. The AMS results are based on some 25 billion recorded events, including 400,000 positrons with energies between 0.5 GeV and 350 GeV, recorded over a year and a half. This represents the largest collection of antimatter particles recorded in space. The positron fraction increases from 10 GeV to 250 GeV, with the data showing the slope of the increase reducing by an order of magnitude over the range 20-250 GeV. The data also show no significant variation over time, or any preferred incoming direction. These results are consistent with the positrons originating from the annihilation of dark matter particles in space, but not yet sufficiently conclusive to rule out other explanations. "As the most precise measurement of the cosmic ray positron flux to date, these results show clearly the power and capabilities of the AMS detector," said Samuel Ting. "Over the coming months, AMS will be able to tell us conclusively whether these positrons are a signal for dark matter, or whether they have some other origin."
Source: CERN

EU FP7 funded project to increase efficiency of solar energy exploitation

Scientists are developing materials and characterisation methods to increase the efficiency of a promising solar energy conversion technology to near 50 %. The technology should substantially reduce associated costs as well. Using a lens to focus the sun's rays onto a piece of paper and initiate burning may seem like child's play, but the principles form the basis of one of the most promising renewable energy options to date. Concentrating solar power (CSP) technologies use mirrors or lenses to focus the sun's energy and convert it into heat, creating steam that drives a turbine to produce electricity. These technologies have the potential to help the EU both decrease dependence on fossil fuels and decrease harmful emissions. Concentrator photovoltaic (CPV) technology was employed in multiple power plants connected to the grid in 2011 and forecasts predict tremendous market uptake within the next five years. Scientists initiated the EU-funded project "A new generation of concentrator photovoltaic cells, modules and systems" (NGCPV) to substantially increase the efficiency and decrease the cost of such systems. The consortium of European and Japanese experts is targeting unprecedented near-50 % efficiency.
Source: CORDIS

New therapy for fragile X chromosome syndrome discovered

Researchers at the University of the Basque Country (UPV/EHU) and the Achucarro neurosciences centre have discovered a new therapy for the fragile X chromosome syndrome,

the most widespread cause of autism and mental retardation among male children. This new therapy proposes the modulation of the cerebral endocannabinoid system to alleviate the symptoms of the disease. This groundbreaking scientific finding has recently been published in Nature Medicine. "Of course, a cure is beyond reach because of the genetic origins of the disease, but the fact that we can improve patients' life conditions is something highly positive," stated Ms Susana Mato, researcher at the Department of Neurosciences at the UPV/EHU and at the Achucarro centre. Fragile X chromosome syndrome (FXS) is a genetic disease, with an incidence estimated at 1 in every 4,000 individuals. The syndrome arises from a deficit in the expression of the FMRP protein (fragile X mental retardation protein), which plays a fundamental role in the regulation of the neuronal function. Patients with FXS present mental retardation, attention deficit, anxiety, self-harming and autistic behaviour, hyposensitivity to pain and a high rate of epileptic crises. All these anomalous neuronal expressions are regulated by the endocannabinoid system.
Source: CORDIS

EU-funded research team makes advances in HIV and cancer detection

European researchers have successfully tested a pioneering HIV-detection technique that is ten times more sensitive than any identification method used to date. The new methodology, which offers a much simpler and cheaper naked-eye-based read-out and could be commercialised in future, has also achieved positive results in similar early detection tests for different types of cancer. The EU-funded MIMIC project is currently working towards a breakthrough in cancer diagnostics which is based on an ultra-sensitive detection system that is able to pick up minute concentrations of disease-related molecules in body fluids. The method it uses draws on the body's natural processes of biomineralisation – the production of minerals. A similar diagnostic approach to that being used in MIMIC's cancer research has already proven effective in detecting HIV/AIDS. Dr Roberto de la Rica Quesada, the MIMIC project coordinator, and Professor Molly Stevens, a European Research Council grantee at Imperial College London, have successfully tested a pioneering HIV-detection technique that is ten times more sensitive than any identification method used to date. This HIV breakthrough is a triumph for the diagnostic approach MIMIC first developed for cancer detection, which went through a number of stages of development and design before successful results were achieved.
Source: European Commission

Developing a new screening test for life-threatening maternal condition thanks to EU funding

In countries with well-developed healthcare systems, dying as a direct result of a condition brought on by pregnancy is a remote and shocking possibility. Nevertheless, one such condition, pre-eclampsia, affects 2% of all first-time mothers, and, moreover, to date no viable screening test has been developed. Without an effective test for this little known or understood condition, clinicians are unable to offer preventive measures to lower the risk of it developing. Pre-eclampsia, which causes high blood pressure in the second half of pregnancy, accounts for up to a quarter of maternal deaths in Europe and more than 500 000 infant

deaths annually worldwide. But this situation is on the verge of changing. For the past 12 years, the University College Cork in Ireland has been one of the pioneering institutes in the emerging science of metabolomics, the study of the chemical processes of the small molecules involved in metabolism. The university has now developed a prototype test consisting of a panel of biomarker metabolisers, which it believes can predict pre-eclampsia at an early stage of pregnancy (15 weeks). According to Professor Louise Kenny, the project coordinator of IMPROvED, data from a pilot study shows that the test offers "an unprecedented degree of specificity and sensitivity". Thanks to European Union funding of EUR 6 million, Prof Kenny will be able to lead a consortium of researchers and clinicians in conducting a phase II trial of this prototype test.
Source: European Commission

Aalto University aims for a breakthrough in wireless data transfer technology

New technology for efficient and speedy wireless data transfer is under development at the Aalto University School of Electrical Engineering. The aim is to develop new basic structures for the wireless network that might revolutionize the concept of mobile equipment. In the traditional wireless technology, it is not possible to send and receive data on the same frequency simultaneously as the strong transmission signal will drown out the incoming signal. The aim of the technology currently under development, which is based on the multiple-input and multiple-output (MIMO) technology, is to reduce this interference. "The main aim of the project is to develop a compact transmitter-receiver based on MIMO technology that would allow simultaneous sending and reception of data on the same frequency band," explains Professor Risto Wichman from the School of Electrical Engineering. In his view, the full-duplex technology currently under development will significantly improve the spectral efficiency of the mobile network, which would mean a higher overall network capacity.
Source: Science|Business

EU-funded project: Breakthrough towards preventing cardiovascular diseases

The hardening of arteries - also known as "atherosclerosis" - can cause cardiovascular diseases (CVD), which can lead to heart attacks and strokes. New evidence was uncovered strengthening the link between inflammation - a defensive reaction of the body - and cardiovascular diseases. This could lead to new innovative preventive and therapeutic strategies, and perhaps ultimately to a cure for atherosclerosis. Atherosclerosis is a chronic and slowly progressing pathological condition involving the inflammatory system. It leads to an accumulation of plaque – containing fatty materials and inflammatory cells – in the walls of the arteries. Complications from advanced atherosclerosis can cause CVD, leading to a heart attack or stroke. Every year, CVD causes over 4 million deaths in Europe – i.e. nearly half of all deaths. The EU-funded Atheromoto project has opened up the possibility of finding new effective treatments by developing a genetically modified mouse model that mimics patients with aggressive inflammatory diseases which display symptoms of atherosclerosis. "Using the latest tools of molecular biology and proteomics [the study of proteins, which perform important functions within the body], we have identified molecular

targets [for possible future therapies] of the immune system in the arterial vessel walls," explains project researcher Aksam Merched. "We were able to come up with some missing puzzle pieces related to our understanding of how CVD is caused." Dr Merched believes that the findings could lead to the development of innovative preventive and therapeutic approaches, which could ultimately bring a cure for atherosclerosis and help save millions of lives. "Obviously, clinical validation of these discoveries is a prerequisite to any translational application in patients," he says.
Source: European Commission

BBMRI-LPC: A four-year project to help scientists have better access to large European studies on health

In response to a specific infrastructure call of the Seventh Framework Programme (FP7) of the European Commission, Biobanking and Biomolecular Resources Research Infrastructure – Large Prospective Cohorts (BBMRI-LPC), a European-wide project involving 30 partners from 17 countries, has received a EUR 8 million funding to enhance access by academic and industry scientists to the largest European biobanks. The project represents the next phase of the successful EU biobanking programme BBMRI which was operational from 2007-2011. BBMRI-LPC led by the University Medical Centers of Helsinki (Finland) and Leiden (The Netherlands) had its kick-off meeting in Amsterdam on 11-12 February and will now run for the following 4 years. The project will specifically focus on large population cohorts and aims to enable academic and industrial scientists to improve our understanding of human biology, thereby leading to novel and better medicine and treatments for common and rare diseases. Over recent years, biomedical research has crossed international borders in large, collaborative studies substantiating the value of collaboration between experts from different fields as well as the value of large numbers of samples. In the past decades, European countries have invested millions of euros of funding and substantial amount of time for the establishment of large collections of volunteering individuals' biological samples and health-related information to be used in the research of human health and disease. The access to this study material, however, is often hindered by the limited resources for sharing samples and data between the fellow scientists, and by differences between nearby countries in their legal and ethical procedures. The BBMRI-LPC project endeavours to unite the large study sets of the European BBMRI and the International Agency for Research on Cancer (IARC), thereby achieving a biobanking network with a scale of integration that is unique worldwide. BBMRI-LPC will assist the European health industry by promoting new and existing public-private partnerships, which will strengthen the European niche in the development of medicine and treatments as well as assist governments in returning the investment made by all European tax payers.
Source: BBMRI-LPC

German Research Foundation establishes 13 New Priority Programmes

A total of 13 new Priority Programmes were established by the Senate of the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) at its recent spring meeting in Bonn. They are set to launch at the beginning of 2014 and bring together the scientific

expertise of researchers from Germany and beyond working in particularly topical or emerging fields. The new Priority Programmes cover the entire spectrum of disciplines, from the humanities, social sciences, life sciences and natural sciences to engineering sciences. Subjects range from the concept of pragmatics in linguistics, which will be coupled with experimental methods from cognitive and neurosciences, to glial cells as the dominant cell population of the brain and the group of non-coding RNA molecules and their regulating role in numerous cell functions, which are both highly topical research subjects in the neurosciences. Other programmes aim to achieve the first fully predictable description of gas-liquid reactors in chemical process engineering or to create the basis for the systematic production of meta-stable materials with some unknown properties. Another looks at biological and synthetic "microswimmer" systems whose internal propulsion mechanism is just as important as insufficiently understood to date. Better understanding of this phenomenon could enable the manufacture of artificial swimmers to imitate biological systems or deliberately exert influence on them. All the programmes are highly interdisciplinary and are notable for their application of innovative methods. For example, intensive collaboration between engineering and mathematics is planned to shed light on new mathematical methods and allow the development of numerical processes for a new quality of reliable and robust simulations in the mechanics of solids and fluids. From the angles of production technology, materials sciences and mechanics, another Priority Programme will look at the principles of producing, characterising and configuring "intrinsic hybrid compounds" which are particularly suitable for use in load-bearing structures. The involvement and support of early career researchers is an important aspect of all the new programmes and one of the key requirements for their establishment. The 13 new Priority Programmes were selected from a total of 61 concepts submitted, which were grouped into eight subject areas and reviewed. The approved concepts each describe the main subject of a Priority Programme. Over the coming months, the DFG will announce a separate call for proposals for all 13 programmes. Proposals will be evaluated in a rigorous review process to determine their scientific quality and their contribution to the general topic in question. A total of EUR 64 million will be available for all 13 new programmes in the first three-year funding period. The Priority Programmes generally run for six years. Including the newly approved ones, the DFG will be supporting 90 Priority Programmes from 2014.
Source: **German Research Foundation**

b) ASEAN

SINGAPORE: Single-Cell Research Centre Opens Door for Asian Biological Discoveries

Government officials, academics, and industry leaders gathered to celebrate the official opening of the Single-Cell Omics Centre (SCOC) in Singapore today. It is the first research centre in Asia exclusively dedicated to accelerating the understanding of how individual cells work, and how diagnosis and treatment might be enhanced through insight derived from single cells. This centre will be an important resource for both academic and industry researchers in Singapore and the region, who are keen to access integrated analytics for single-cell genomic applications. Single-cell genomics is one of the hottest emerging areas of

study in life sciences research. It is poised to help solve some of the most fundamental biological mysteries of our time and could lead to new ways to diagnose, treat and prevent diseases such as cancer (breast, prostate, leukemia, etc.), diabetes, memory loss, heart disease and more. For example, scientists now know that the loss of sight (macular degeneration), the biology of aging, and the spreading of infectious diseases all involve important single-cell phenomena that need to be studied. The Single-Cell Omics Centre is a collaboration between the Genome Institute of Singapore (GIS), an institute under the umbrella of the Agency for Science, Technology and Research (A*STAR), and Fluidigm Corporation, an industry leader in single-cell genomics. Fluidigm became the first biochip company to set up shop in Singapore in 2005.
Source: A*STAR

SOUTHEAST ASIA: UK reaching out to help the region lift its quality of education

The UK government has prioritised collaboration with Southeast Asia in the areas of capacity-building in vocational and technical education, English language education, mobility and exchanges of lecturers, professors, researchers and students, development of world-class learning and research capabilities, and technology transfer in science education and innovation. The UK has become the eighth associate member, after Australia, Canada, France, Germany, the Netherlands, New Zealand and Spain. The UK's application was approved at the 47th Seameo (Southeast Asian Ministers of Education Organization) Council Conference, attended by education ministers and high-level education officials, held in Hanoi from 19-21 March. Since 1973, associate membership of Seameo has been open to any country willing to promote cooperation among Southeast Asian nations through education, science and culture. Member countries have made financial and technical contributions and expertise to the development of education, science and culture of Southeast Asian countries, through the mandate of 21 Seameo Regional Centres.
Source: THE NATION

THAILAND: AIT awarded EUR 3.4 million grant by the European Union to intensify sustainable agriculture development in Thailand, Laos, Cambodia and Vietnam

Scientists at the Asian Institute of Technology (AIT) are set to introduce a “more intelligent pathway” for cultivating rice in Thailand, Laos, Cambodia and Vietnam through sustainable agriculture development and System of Rice Intensification (SRI). In a bid to unlock sustainable solutions for managing agriculture systems in the Lower Mekong River Basin region, AIT researchers have embarked on a five-year project that aims to intensify the practice of sustainable agriculture by promoting the SRI as an entry point for innovations that could benefit millions of poor small-scale farmers. By the year 2050, the global population is projected to be 9 billion. According to the United Nations, feeding such a large number, along with tackling climate change and maintaining productive land and sufficient water resources, will require dramatic improvements for managing the world’s agricultural systems. Facing these challenges, AIT in Thailand has been awarded a landmark EUR 3.4 million (USD 4.37 million) grant by the European Union for a project titled: “Sustaining and Enhancing the Momentum for Innovation and Learning around the System of Rice

Intensification (SRI) in the Lower Mekong River Basin." The grant enabled the launch on 9 April 2013 of the Asian Centre of Innovation for Sustainable Agriculture Intensification (ACISAI) at its new home situated on the ground floor of the AIT Administration Building.
Source: AIT

SINGAPORE: NTU's new therapy device enables stroke victims to recover further

Scientists from Nanyang Technological University (NTU) have developed a new stroke rehabilitation device which greatly improves recovery in stroke patients. Thanks to this invention, stroke patients who had undergone conventional rehabilitation for a year or more and had hit a plateau in their recovery, managed to make significant progress in their ability to carry out everyday tasks. Some of these long-term stroke sufferers have recovered up to 70 per cent of motor function clinical scores in just a month during the trial. The new stroke therapy system, known as Synergistic Physio-Neuro Platform (SynPhNe), is currently undergoing clinical investigations and more feasibility trials at local hospitals. In use for 150 therapy hours, it has not had any side effects so far. Patients who tried SynPhNe also said they experienced little fatigue while using this easy-to-use system. Developed by Dr John Heng, a senior research fellow at NTU's School of Mechanical and Aerospace Engineering and his PhD student, Mr Banerji Subhasis, this system gives hope to frustrated patients who want to see more progress after completing conventional rehabilitation therapies. SynPhNe consists of patented computer software connected to a specially designed headset with neural sensors and a sensor arm glove. The device is designed to be worn easily by stroke patients who usually have control of only one arm. These sensors provide feedback on the stress, attention, and relaxation levels of the mind and which muscles are being activated or inhibited by the patient. The software contains instructional videos for limb movements which the patient can mimic to improve his/her performance of various tasks.
Source: NTU

SINGAPORE: New plastic film is the future of 3D on-the-go

Temasek Polytechnic (TP) and A*STAR's Institute of Materials Research and Engineering's (IMRE) new nano-engineered screen protector turns the ordinary screens of handheld devices into 3D displays. They will be marketed by start-up, Nanoveu Pte Ltd. The unique plastic film can also potentially be used as next generation security tokens employed by banks and corporations. Thanks to a simple plastic filter, mobile device users can now view unprecedented, distortion-free, brilliant 3D content with the naked eye. This latest innovation from TP and IMRE is the first ever glass-free 3D accessory that can display content in both portrait and landscape mode, and measures less than 0.1 mm in thickness. "The filter is essentially a piece of plastic film with about half a million perfectly shaped lenses engineered onto its surface using IMRE's proprietary nanoimprinting technology," said Dr Jaslyn Law, the IMRE scientist who worked with TP on the nanoimprinting R&D since 2010 to enhance the film's smoothness, clarity and transparency compared to other films in the market. To complement the filter, the team developed applications for two software platforms, Apple iOS and Android, which allow users to play 3D content through its filter, in both landscape and portrait formats. The applications also allow 2D pictures taken using mobile devices to

be converted into 3D. The team will be releasing a software development kit that enables game developers to convert their existing games into 3D versions.
Source: A*STAR

4. FELLOWSHIPS & GRANTS

International Cooperation opportunities in FP7 for ASEAN countries

DG Research and Innovation has published tailored presentations for various world regions, highlighting the key areas of FP7 with a focus on international cooperation and specific opportunities for ASEAN countries.

Further information can be found here:
DG Research & Innovation: International Cooperation
ASEAN

Update on European Research Council (ERC) Calls for proposals (2014)

As the EU's Seventh Research Framework Programme (FP7) will finish at the end of this year, the main ERC calls for proposals within FP7 are now closed. The next ERC calls will be made under the future programme, "Horizon 2020", that will take over from FP7 for 2014 to 2020. However, "Horizon 2020" has not yet been adopted. As is normally the case during the transition from one framework programme to another, the schedule for the next ERC calls (and ERC Work Programme) is very likely to differ from previous years. **The provisional schedule for the new calls (ERC Work Programme 2014) could be published in late 2013; however, this is on a purely indicative basis.**

Open calls in the 7th Framework Programme (FP7)

Below is a list of all currently open calls in each strand of FP7. The work programmes for 2013 can be found here: **CORDIS**

You can also find a good overview of upcoming calls at EURESEARCH, the platform on European research by the Swiss National Science Foundation (SNSF).

COOPERATION

6 open calls remain in the Cooperation strand of FP7.

- Transport (including Aeronautics) – **1** open call
- Joint Technology Initiatives (Annex IV-SP1) – **5** open calls

Forthcoming calls in the Cooperation strand of FP7:

Call Identifier	Call Title	Foreseen Date of Publication
SP1-JTI-CS-2013-03	Clean Sky JTI 2013-03	2013-07-09
FP7-2013-ICT-FI	Future Internet	2013-05-16

Further Information: COOPERATION

IDEAS

1 open call remains in the Ideas strand of FP7.

Call Identifier	Call Title	Publication	Deadline
ERC-2013-PoC	Calls for proposals for ERC Proof of Concept Grant	2013-01-10	2013-10-03

Further information: IDEAS

For more general **information for non-European researchers** in the ERC's grants: http://erc.europa.eu/non-european-researchers

PEOPLE

4 open calls remain in the People strand of FP7.

Call Identifier	Call Title	Publication	Cut-off dates	Deadline
FP7-PEOPLE-2013-CIG	Marie Curie Career Integration Grants (CIG)	2012-10-18	2013-03-07	2013-09-18
FP7-PEOPLE-2013-IOF	Marie Curie International Outgoing Fellowships for Career Development	2013-03-14		2013-08-14
FP7-PEOPLE-2013-IIF	Marie Curie International Incoming Fellowships (IIF)	2013-03-14		2013-08-14
FP7-PEOPLE-2013-IEF	Marie Curie Intra-European Fellowships for Career Development (IEF)	2013-03-14		2013-08-14

Further information: PEOPLE

CAPACITIES

2 open calls remain in the Capacities strand of FP7.

Call Identifier	Call Title	Publication	Deadline
FP7-ERAChairs-PilotCall-2013	ERA Chairs Pilot Call	2012-12-18	2013-05-30
FP7-CDRP-Women-Innovators	EU Prize for Women Innovators 2014	2012-07-10	2013-10-15

Further information: CAPACITIES

SWEDEN: General Call for Applications 2013 now open

- The 2013 general call for applications is now open. Closing dates for applications vary between subject areas and calls for application.
- Humanities and Social Sciences, Educational Sciences and Infrastructure and Artistic Research – latest 6 May 2013
- Medicine and Health – earliest 4 April 2013, latest 6 May 2013
- Natural and Engineering Sciences – earliest 11 April 2013, latest 6 May 2013

Further information: Swedish Research Council

GERMANY: Humboldt Fellowships

The German Humboldt Foundation offers a number of fellowships and awards for researchers at different stages in their careers. Applications for the following programmes can be made at any time.

Humboldt Research Fellowship for Postdoctoral Researchers
The fellowship is open to researchers from abroad with above average qualifications who are at the beginning of their academic career and who have completed their doctorate in the last four years. A Humboldt Research Fellowship for postdoctoral researchers allows for carrying out a long-term research project (6-24 months) that is selected by the fellows in cooperation with an academic host at a research institution in Germany.
Further information: Humboldt Fellowships for Postdocs

Humboldt Research Fellowship for Experienced Researchers
For researchers from abroad with above average qualifications who completed their doctorate less than twelve years ago and work at least at the level of Assistant Professor or Junior Research Group Leader or have a record of several years of independent academic work. A Humboldt Research Fellowship for experienced researchers allows for carrying out a long-term research project (6-18 months) that is selected by the fellow in cooperation with an academic host at a research institution in Germany.
Further information: Humboldt Fellowship for Experienced Researchers

Georg Forster Research Fellowship for Postdoctoral Researchers
Open to researchers from developing countries with above average qualifications who are at the beginning of their academic career and who have completed their doctorate in the last four years. A Georg Forster Research Fellowship for postdoctoral researchers allows for carrying out a long-term research project (6−24 months) selected by the fellow in cooperation with an academic host at a research institution in Germany.
Further information: Georg Forster Research Fellowship for Postdoctoral Researchers

AUSTRIA: Institute of Science and Technology, ISTFELLOW

IST Austria in Vienna has set up a programme for exceptional postdoctoral researchers partially funded by the European Union, ISTFELLOW. The programme will fund 40 fellows for a period of two years each. ISTFELLOW is open to qualified applicants from all over the world who are interested in spending the postdoctoral stage of their scientific research career at IST Austria. As the research portfolio of the Institute continues to branch out into other areas in the coming years, including physics, chemistry, and mathematics, so will the ISTFELLOW programme. ISTFELLOW will give preference to scientists who have a strong interest in cross-disciplinary approaches. Applications will be accepted at any time, but fellows will be selected twice a year in October and April. The deadlines for each selection are the 15th of September and March. Applicants must have the support of one or more members of the IST Austria faculty who will host them in their research group.

Application deadline: 15 September 2013
Further information: ISTFELLOW

EMBO funding for Courses & Workshops

Biannual selection by a committee of members of the European Molecular Biology Organization (EMBO) ensures the consistent high quality and novelty of EMBO-funded courses, workshops and conferences. The commitment of the scientific organizers guarantees the long-term success of the programme to inform and train researchers at all career stages. With over 80 meetings attracting more than 8,000 participants every year, EMBO offers the largest number of scientific training events in Europe. Funding is available for conference series, workshops, practical courses and symposia as well as plenary lectures. EMBO assists organizers with websites, posters and registration.

Further information: EMBO Courses & Workshops

TWAS Postgraduate Research Fellowship for Developing Countries Students

Each year, the TWAS Fellowship Programmes, which operate under agreements with governments and national organizations in developing countries, offer a number of fellowships to young scientists from developing countries to carry out postgraduate research

in developing countries other than their own. Currently, there are eleven fellowship programmes for postgraduate research, implemented in collaboration with the partner organizations. Deadlines vary according to the country.

Further information: TWAS - Third World Academy of Sciences

DENMARK: Danish Council for Independent Research (DFF)

The Danish Council for Independent Research announced a number of programmes for researchers.

Strategic Research in Transport and Infrastructure
The Danish Council for Strategic Research (DCSR) and The Energy Technology Development and Demonstration Programme (EDDP) offer a total of DKK 25 million to a special effort with the aim to support research, development and demonstration within energy efficient transport. All Danish and foreign citizens can apply. However, it is required that the supported research activities promote and strengthen Danish research.
Deadline for application: 14 June 2013
Further information: Strategic Research in Transport and Infrastructure

The Danish Council for Independent Research Spring 2013
The Council's aim is to promote and strengthen Danish research, understood in a broad sense. Therefore, there are no requirements as to applicants' citizenship, the location of research institutions or the specific venue for carrying out the research activities applied for. But in all cases, a general assessment criterion will be the extent to which the project applied for will benefit Danish research. The Council sees diversity as a resource, and encourages all candidates – regardless of their gender, faith, religion or ethnic origin – to apply. The purpose of DFF-Individual postdoctoral grants is to maintain and develop the research competencies of researchers who are in the beginning of their research careers. The aim is to enable the grant recipient to consolidate his or her individual research profile through the project, and develop his or her scientific network. In its assessment of applications, it is important to the Council that a DFF-Individual postdoctoral grant will contribute – to the widest possible extent – to promoting the national and international mobility among research environments and, where relevant, between research environments and the business community. The grants are awarded to researchers who in an independent manner carry out specific research projects at research institutions in Denmark or abroad. For applications submitted to The Danish Research Council/Natural Sciences (FNU), affiliation of the postdoctoral project with a research institution outside Denmark during the whole grant period is a decisive criterion in relation to DFF-Individual postdoctoral grants. For foreign postdocs who apply for support to carry out research projects in Denmark, it is DFF's expectation that they will bring considerable new expertise to the Danish host environment.
Deadline for application for natural sciences: 6 May 2013
Deadline for application for medical sciences: 24 April 2013
Deadline for application for technology and production sciences: 3 May 2013
Further information: The Danish Council for Independent Research Spring 2013

5. JOBS

EURAXESS Jobs

There are currently **10.955** research jobs and fellowship programmes (all over Europe and in all disciplines) accessible via the EURAXESS Jobs database.

IRELAND – Dublin: Optical Engineer

Dublin-based company is seeking an Optical Engineer to join its Engineering Department. This position offers an exciting opportunity for joining dynamic cross-functional project teams of highly qualified engineers and science-related staff who are working on turnkey solutions for industry.

Deadline: 30 April 2013
Details: IRELAND

UK – Queen Mary University London: PhD in Neurosciences

PhD studentship
Experimental Medicine (Centre for Neuroscience and Trauma), Blizard Institute Barts and the London School of MedicineQueen Mary University of London

Understanding mechanisms of disease progression in multiple sclerosis: The relationship between pathological changes in the neocortex and the spinal cord
Supervisor: Klaus Schmierer PhD FRCP
Co-supervisor: Gavin Giovannoni PhD FRCP

Deadline: 3 May 2013
Details: UK

SWEDEN: Chalmers University of Technology Gothenburg – Postdoctoral position in Experiments and kinetic modelling of catalytic emission cleaning

This project will be positioned at Chemical Engineering and Competence Centre for Catalysis (KCK). The objective with this project is to investigate the catalytic reactions in aftertreatment systems from vehicles. The project will contain preparing catalysts, characterize them, measure activity and selectivity. At KCK we have access to several characterization methods like micro calorimetry, FTIR, BET, XPS, TPD, TPR, XRD and UV-vis. The results obtained will be used for developing kinetic models. The project will contain both experiments and modelling.

Deadline: 15 May 2013
Details: SWEDEN

To learn more about these programmes and the application procedures, or to post your CV on the database, please visit the Jobs web site: **JOBS**

Click **here** to go directly to the **latest jobs**.

Click **here** to access information on **fellowship and grants**:

6. FORTHCOMING EVENTS

EMBO Events Calendar
Find the latest event announcements of the European Molecular Biology Organisation at **EMBO Events Calendar.**

Europe Day celebration at the EU Centre Singapore, 9 May 2013

The European Union Centre in Singapore cordially invites you to a celebration of Europe Day on 9 May 2013 at their premises. This year's celebration features a quiz competition testing your knowledge of the EU, with attractive prizes to be won. A sumptuous lunch featuring European cuisines will be served. The event will be graced by the EU Ambassador to Singapore, H.E. Marc Ungeheuer.

Date: 9 May 2013, Thursday
Time: 11am – 1.30pm
Venue: LT 602, NTU@one-north campus, Executive Centre, 11 Slim Barracks Rise (off North Buona Vista Road), Singapore 138664

Further information: EU Centre

BELGIUM: SEFI Annual Conference, Leuven, 16-20 September 2013

SEFI, the European Society for Engineering Education, will hold its Annual Conference on the theme "Engineering Education Fast Forward: 1973-2013" from 16 to 20 September at KU Leuven in Belgium. The Conference coincides with the celebration of SEFI's 40th Anniversary and about 400 participants are expected.

The deadline for submission of papers is 15 May 2013.
The early registration deadline is 30 June 2013.
Further Information: SEFI

FRANCE: Transport Research Arena 2014, 14-17 April 2014

Transport Research Arena (TRA) is the major conference on transport in Europe, supported by the European Commission, the Conference of European Road Directors, and the three European Technology Platforms: the European Road Transport Research Advisory Council (ERTRAC), the European Rail Research Advisory Council (ERRAC), and WATERBORNE TP. The conference topics address the main challenges in transport and mobility of people and goods, with respect to energy, environment, safety and security as well as economic issues. TRA aims to explore the most advanced research work and innovations, the latest technological and industrial developments and implementations, and innovative policies in Europe and worldwide. As a wide and open forum open to all interested parties, it is an occasion to promote and improve European competitiveness and efficiency in transportation.

The deadline for submissions is 30 April 2013.
Further information: TRA2014

SPAIN: 5th International Conference on Environmental, Industrial and Applied Research - BioMicroWorld2013, 2-4 October 2013

The conference will bring together researchers, engineers and scientists in the fields of industrial microbiology, biotechnology, environmental sciences, agriculture, food and medical microbiology, and other related fields, to communicate current research priorities and progress in those fields, and to identify new research approaches.

The deadline for abstract submissions is 2 July 2013.
Further information: BioMicroWorld2013

DENMARK: Science for the Environment Conference, 3-4 October 2013

Aarhus University and the Partnership for European Environmental Research (PEER) invite researchers to Aarhus University in order to take stock of and assess the scientific progress towards tackling the grand environmental challenges, as specified in the Horizon 2020 challenge: Climate action, resource efficiency and raw materials. The main purpose of the conference is to identify knowledge gaps and future research needs within this challenge in Horizon 2020, and to deliver the collected advice of the conference to the European Commission.

The deadline for abstracts is 1 May 2013.
Further information: DCE-Conference

SWITZERLAND: Swiss-Singapore Workshop on Microfluidics, 22 May 2013

CSEM, Creapole and i-NET in cooperation with swissnex Singapore join forces to organize a one-day Swiss Singapore workshop on microfluidics. This workshop follows similar successful events of previous years which took place in Singapore and which were organized by swissnex Singapore and the Singapore Institute of Manufacturing Technology (SIMTech). Delegates from Singapore and Switzerland, including some prominent industry leaders, will join the workshop and provide critical technological insights and the latest updates on the global microfluidics industry, as well as the current development in microfluidic applications.

Registration deadline: 15 May 2013
Further information: SWISSNEX Singapore

SINGAPORE: French-Singaporean Workshop on Formal Methods and Applications

The 1st French Singaporean Workshop in Formal Methods and Applications (FSFMA) will take place on 15-16 July 2013, at Singapore University of Technology and Design (SUTD) as a satellite of the 18th International Conference on Engineering of Complex Computer Systems (ICECCS 2013). Co-chaired by Assistant Professor Jun Sun, SUTD and Dr Christine Choppy, Université Paris 13, Sorbonne Paris Cité, France (LIPN, UMR 7030), this workshop aims at sharing research interests and launching collaborations in the area of formal methods and their applications. The scientific subject of the workshop covers (but does not limit to) areas such as formal specification, model checking, verification, program analysis/transformation, software engineering, and applications in major areas of computer science, including aeronautics and aerospace. The workshop will bring together researchers and industry R&D experts from all countries together to exchange their knowledge, discuss their research findings, and explore potential collaborations. Round tables will focus on French-Singaporean funding and cooperation opportunities.

Further information: Embassy of France in Singapore

SINGAPORE: Centre of Excellence for National Security (CENS), Call for Papers – Researching Social Resilience (5-6 August 2013, Singapore)

This 2-day conference will address issues of eliciting policy applications and evaluating policy outcomes from academic research on social cohesion and social resilience. The audience for this conference will include local academics and policy-makers. CENS invites paper submissions that address the following questions: What are the best practices and tools in the field – qualitative and/or quantitative – that both academics and policy-makers can use to understand and explain social cohesion and resilience? How does one measure and evaluate the efficacy of policies designed to cultivate social cohesion and resilience? What can be done to close the gaps between academic research outputs and policy outcomes?

Submissions (in English only) are invited from all disciplines relevant to the theme of the conference. Please send abstracts of approximately 300-350 words in electronic form to Nadica Pavlovska (isnadica@ntu.edu.sg). All proposals should include name, contact information, institutional affiliation and a short biography of not more than 400 words.

Travel grants may be available for overseas participants.

Deadline: Submission of abstracts by **14 May 2013**
For more information: CENS

BELGIUM: ACES Conference and Awards, 4 June 2013

The Academic Enterprise Awards (ACES), now in their fifth year, are the only pan-European awards for enterprise in university and public research institutes. They give public recognition to those researchers, engineers, professors, students and government officials in Europe who have done the most to foster a culture of enterprise on campus. This can be through taking the risk of launching a spin-out company, developing a discovery into a marketable innovation, or promoting policies that create a receptive environment for entrepreneurship on campus. They draw nominations from all sectors, disciplines and countries in Europe, and are judged by the Science|Business Innovation Board, a leadership panel co-founded by Science|Business, business schools INSEAD and ESADE, in association with Microsoft and BP.

In 2013, nominated spin-outs compete for the four following awards:

- Life Sciences Award - For spin-outs based on research in pharmaceuticals, biotechnology, medical devices, diagnostics and other life sciences sectors.
- Materials & Chemicals Award - For spin-outs based on research in new materials, chemicals or engineering sectors.
- Energy & Environment Award - For spin-outs based on research in energy, climate and environment technologies.
- ICT Award - For spin-outs based on research in computer, telecommunications, online hardware, software, services and sectoral application of ICT (e.g. e-health)

The 5th edition of the Academic Enterprise Awards will be celebrated in a conference hosted by Vice-President of the European Parliament Alexander Alvaro on 4 June 2013.

Further details: Science|Business

ESTONIA: 10th International Conference on Wearable Micro and Nano Technologies for Personalized Health (pHealth 2013), 26-28 June 2013

The pHealth conference has emerged as the leading international meeting on wearable micro and nano technologies for personalised medicine. Starting in 2004, pHealth has attracted scientists for various technologies, medical doctors, policy-makers from the healthcare industry, hospital administration and allied professionals. pHealth has given visibility to the tremendous potential of micro and nano technologies not only for the future of medicine, but also for the improvement of healthcare processes today. Microsystems, smart textiles, telemedicine, smart implants and sensor-controlled medical devices have become important enablers for monitoring and treatment in both inpatient and outpatient care. This is, however, just the beginning of revolutionary changes and significant opportunities for patients, companies and the healthcare industry. The multilateral benefits of pHealth technologies for all three stake-holders lead to a triple win situation with enormous potential, not only for medical quality improvement and industrial competitiveness, but also for managing healthcare cost.

Further information: pHealth2013

GERMANY: MEMSWAVE 2013, 1-3 July 2013

MEMSWAVE 2013 is the 14th edition of an international event to be held in Potsdam, Germany. The series of MEMSWAVE started in 2000 in Sinaia, Romania, and since 2004 has been promoted by the AMICOM Network of Excellence on RF-MEMS and RF-Microsystems (MST), funded by the European Commission in FP6. AMICOM evolved into the RF-MEMS Topical Group of the European Microwave Association, which sponsors the MEMSWAVE Symposium. MEMSWAVE 2013 includes:

- The RF-MST Cluster Meeting (1 July 2013) co-organized with the European Commission, where the achievements of MEMS-related EU projects will be illustrated and discussed.
- The MEMSWAVE Workshop (2-3 July 2013) where invited and peer-reviewed papers will be presented to provide an international forum for scientists and industrialists for the exchange of information on the most recent advances and best achievements in the area of RF-MEMS, MSTs and RF-NEMS with emphasis on European achievements.

Further information: MEMSWAVE2013

GERMANY: Cardiac Biology - From Development to Regenerative Medicine, 7-10 June 2013

Regenerative medicine is a prime example of the interdisciplinary trend in contemporary biomedical research, incorporating developmental and stem cell biology, biomaterials and tissue engineering, gene and cell therapeutic approaches. The science underpinning recent advances in tissue repair has already provided significant clinical outcomes in many organ systems, yet the challenges facing regeneration of the cardiovascular system are particularly complex. The mature mammalian heart is particularly refractory to recovery after insult, mysteriously losing the robust cardiac regenerative capacity of the embryo, which is retained by other species into adulthood. This conference will cover recent discoveries in cardiac developmental biology, compare cardiac systems across the evolutionary spectrum, and explore the fundamental barriers to cardiac self-renewal in the clinical context. International specialists will share their latest work in this challenging field, focusing on the interface of basic and translational research.

The deadline for registration is 25 April 2013.
Further information: EMBO | EMBL

SWITZERLAND: 2013 CERN- Fermilab HCP Summer School, 28 August-6 September 2013

Experiments at Hadron Colliders will continue to provide our best tools for exploring physics at the TeV scale for some time. With the completion of the 7-8 TeV runs of the LHC, and the final results from the full Tevatron data sample becoming available, a new era in particle

physics is beginning, heralded by the Higgs-like particle recently discovered at 125 GeV. To realize the full potential of these developments, CERN and Fermilab are jointly offering a series of "Hadron Collider Physics Summer Schools", to prepare young researchers for these exciting times. The school has alternated between CERN and Fermilab, and will return to CERN for the eighth edition, from 28 August to 6 September 2013. The CERN-Fermilab Hadron Collider Physics Summer School is an advanced school which is targeted particularly at young postdocs in experimental High Energy Physics (HEP), as well as senior PhD students in HEP phenomenology, working towards the completion of their thesis project. Other schools, such as the CERN European School of High Energy Physics, may provide more appropriate training for students in experimental HEP who are still working towards their PhDs.

The deadline for application is 30 April 2013.
Further information: CERN

7. RESOURCES

Latest Calls

Here you can find the latest calls on the newly set up **Research Participant Portal.**

International Cooperation Activities

Access the **portal of the European Commission's International Cooperation Activities** here.

Become an Expert Evaluator for FP7

The website to register as an expert for research activities is available on CORDIS. The call for experts is open both for individuals and for organizations.

Source: **CORDIS**

Other Research Career Sites

The Chronicle of Higher Education Careers Service: http://chronicle.com/jobs/
Find A Postdoc: http://www.findapostdoc.com/
Find Scholarships in Europe: http://www.scholarshipportal.eu/
Find PhDs in Europe: http://www.phdportal.eu/
Academic Jobs EU: http://www.academicjobseu.com
Euro Science Jobs: http://www.eurosciencejobs.com/
The European Job Mobility Portal: http://ec.europa.eu/eures/home.jsp?lang=en
EMBO excellence in life sciences: http://www.embo.org
EuroBrussels: http://www.eurobrussels.com/
Jobs at ITER: http://www.iter.org/jobs
Nature.jobs: http://www.nature.com/naturejobs/index.html
Jobs.ac.uk: www.jobs.ac.uk
Research Jobs in Germany: Research-in-Germany.de
Scholarship Database of the German Academic Exchange Service (DAAD)
Research Jobs in the Netherlands: http://www.academictransfer.org/
Brainpower Austria: http://www.brainpower-austria.at/

EURAXESS Portal

The EURAXESS portal provides links to information on career and grant opportunities in science and technology in European countries. For research careers in Europe, visit the EURAXESS Jobs website.

8. ABOUT EURAXESS LINKS ASEAN

EURAXESS Links ASEAN is a network of European researchers, scientists, and scholars working in or commuting to ASEAN. This multidisciplinary network includes members at all stages of their careers. It allows them to connect with each other and with Europe, ensuring that they are recognized as an important resource for European research, whether they remain in ASEAN or return to Europe. For further information and to sign up for membership in our network, as well as in the virtual SINAPSE community of European researchers abroad, please go to our website and **click** on the Join the EURAXESS Links ASEAN community hyperlink on the right-hand side of the page.

9. ABOUT THIS NEWSLETTER

EURAXESS Links ASEAN Newsletter is a monthly electronic newsletter, edited by EURAXESS Links ASEAN, which provides information of specific interest to European and non-European researchers in ASEAN who are interested in the European research landscape and conducting research in Europe or with European partners.
The information contained in this publication is intended for personal use only. It should not be taken in any way to reflect the views of the European Commission nor of the Delegations of the European Union.
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