

European Medical Research Councils (EMRC)

Editorial

The past quarter was full of activities that led me to think that *'One Europe, One voice for different countries'* is really what we want to achieve.

At the plenary meeting in Obernai on 22-23 April we welcomed top researchers who presented their views on *'Regenerative medicine and ethics'*. Professor Niels Erik Skakkebaek from Rigshospitalet in Denmark alluded to the role that the environment might play in the *'Origin of testicular cancer from gonocytes with stem cell properties'* in Northern Europe.

Ms. Natividad Calvente Cestafe presented on behalf of Professor Augusto Silva from the Spanish Ministry of Health and Social Politics and the Spanish Agency for Medicines and Medical Devices, Advanced Therapies & Transplantation the current situation in Spain.

Professor Outi Hovatta from the Karolinska Institutet gave an update on progress for the ESF Science Policy document on *'Stem Cell and Regenerative Medicine'* under preparation under her leadership and on the *'Safety, legal and ethical issues linked to the clinical applications of stem cell research'*.

A thorough discussion followed and feedback upon the SPB is currently in progress. By the end of the year we aim to produce a strong document accommodating all cultural and ethical differences and beliefs.

Mid-May we enjoyed the success of having all recommendations expressed in the *'ESF-EMRC Position on the Proposal for a Directive on the Protection of Animals used for Scientific Purposes'* integrated in the draft directive. On 5 May the large majority of the Members of the European Parliament voted to endorse these recommendations.

Professor Roger Lemon, who chaired this activity, will represent the ESF at a working group convened by the European Commission on 9-10 July in Brussels aimed at identifying the criteria for severity classification.

The outcome of the directive process is expected to be implemented in autumn when we aim to establish contact with the new leadership at the European Commission and Parliament following the elections on 7 June.

On 2 June, the Medical Sciences unit welcomed Dr. Stephane Berghmans the new science officer recruited as the replacement of Thomas Bruhn, whom we wish every success in his new position.



Stephane's first task will be to successfully bring to completion the Forward Look on 'RNA world'.

The 12 March release of the Forward Look report prompted many articles in international journals praising the relevance and timeliness of this important endeavour. As agreed at the last plenary meeting an implementation workshop is being organised on 29-30 June in Paris aimed at having the recommendations expressed in the Forward Look Investigator-Driven Clinical Trials come to fruition.

The European Commission and the President of the ESFRI Council Carlo Rizutto have approached the ESF for help in establishing a portal for small and medium size research infrastructures to complement the second ESFRI roadmap. The Standing Committee will be consulted for their specific expertise.

Autumn will be busy and until then I would like to express a warm thank you to all of you for your continuous help and commitment for the past months and wish you a relaxing summer season.

Lotte,
Professor Liselotte Højgaard, MD DMSc
EMRC Chair

Highlights

Infectious Diseases: from basic to translational research

ESF Research Conference: Europe-Africa Frontier Research Conference Series

4-9 April, Cape Town, South Africa



The first in a series of Europe-Africa Frontier Research Conferences focusing on neglected infectious diseases took place in Cape Town, South Africa in April. Attended by 99 participants from all around the world, the conference was chaired by Professor Monique Capron (Institut Pasteur, Lille, France) and Professor M. Iqbal Parker (International Centre for Genetic Engineering and Biotechnology, Cape Town, South Africa).

This event concentrated on cellular, molecular and genetic mechanisms underlying infectious diseases and explored how they may be applied to drug development and other intervention strategies. Topics of interest included common infectious diseases such as tuberculosis, malaria and neglected diseases such as *Buruli* ulcer, leishmaniasis, schistosomiasis, filariasis, along with West Nile, Rift Valley and chikungunya viral infections.

At the end of the conference the participants aired their great wish that a similar conference should be organised in the coming years with the same broad title but concentrating more on diseases that were not dealt with at this occasion, for instance viral diseases such as Ebola fever and human Papilloma virus induced cancers, Herpes virus and Herpes virus induced cancers. Also new drug-discovery should be discussed. This future conference could



perhaps take place in two years time either in West- or East-Africa, so that these parts of Africa would benefit from the conference.

More at: www.esf.org/conferences/09277

The Impact of the Environment on Innate Immunity: the threat of diseases

ESF Research Conference: ESF-FWF-LFUI Conference in Partnership with Leopold-Franzens-Universität Innsbruck

4-9 May, Obergurgl, Austria

The conference was held in Obergurgl, Austria, on 4-9 May and chaired by Professor Joachim Kurtz (University of Münster, Faculty of Biology Animal Evolutionary Ecology Group, Germany) and co-chaired by Dr. Sophie Armitage (University of Münster, Institute for Evolution and Biodiversity, Germany) and Professor Paul Schmid-Hempel (ETH Zurich, Institute of Integrative Biology, Switzerland). It was the second in a series of two conferences on the impact of the environment on innate immunity, resistance to disease and future treatment implications.



The first ESF-FWF (Austrian Science Fund) conference was held in April 2007, and concentrated on basic knowledge of invertebrates' innate immune protection, demonstrating a complex mechanism with a close analogy to that of humans. Components of invertebrates' innate defence, when modified by biotechnology, can be used against parasites which have evolved and resist existing treatments. Drugs, derived this way, have the potential to be evolution-proof.

The reasons for this and the effectiveness of such drugs on a large scale set the tone for the second follow-up conference in May 2009. Are natural conditions a necessity for the functioning of invertebrates' innate defence? Can this functioning be replicated artificially to treat humans? These questions were discussed in cross-disciplinary talks between immunologists, ecologists and experimental biologists.

The conference hopefully will have contributed to a better understanding of the immune system evolution and of its optimisation at a time when pathogens are on the rise.

More at: www.esf.org/conferences/09223 and www.esf.org/activities/esf-conferences/publications



Three Research Networking Programmes present their forthcoming activities in a brochure

- **ERNI-HSF** - The European Research Network for Investigating Human Sensorimotor Function in Health and Disease is focused on understanding the nature of the sensorimotor transformations carried out by the parietal cortex. This represents a fundamental problem for neuroscience and is of considerable clinical importance in treating the consequences of stroke and other neurological and psychiatric disorders that affect this brain area.
- **EUCCONET** - European Child Cohort Network offers several teams in Europe the opportunity to share knowledge and experience, and to enter into international collaborations. One of the main objectives is to consolidate social, health and environmental aspects of child development, through one survey.

- **FUMINOMICS** - The project Functional genomics in *Aspergillus fumigatus* and new strategies to fight against the first fungal pathogen in Europe aims to undertake a multidisciplinary and fully-integrated functional genomics analysis of the basic mechanisms of the opportunistic traits developed by *A. fumigatus* to infect host cells.

More at: www.esf.org/erni
www.esf.org/euconet
www.esf.org/fuminomics

European Space Agency (ESA) Peer Review

Three ESA Announcements of Opportunity (AO), including the international AO on life sciences, have been released by ESA, the National Aeronautics and Space Administration (NASA) and the Japan Aerospace Exploration Agency (JAXA) on 14 May (Canadian Space Agency forthcoming) featuring the role of ESF for Peer-Review:

- International Research Opportunities for Flight Experiments in Space Life Sciences on the ISS, Physical Sciences and Biology.
- Life Science Research Using the Spaceflight Analogue 'Bed Rest'

Submission deadline for letters of intent **15 June 2009**
 Submission deadline for proposals **14 September 2009**

More at: http://www.esa.int/SPECIALS/HSF_Research

Events 2009

- **Nanomedicine II**
ESF-UB Summer School
12-16 June, Lisbon, Portugal
- **The Identification of Novel Genes and Biomarkers for Systemic *Lupus erythematosus* (Biolupus)**
RNP BIOLUPUS – First Steering Committee
13 June, Copenhagen, Denmark
- **European Network for the Study of Adrenal Tumors (ENSAT)**
RNP ENSAT – First Steering Committee
2 July, Strasbourg, France
- **International Society for Stem Cell Research (ISSCR) 7th Annual Meeting**
8-11 July, Barcelona, Spain
- **Natural Products Chemistry, Biology and Medicine II**
ESF-COST High-Level Research Conference
29 August – 3 September, Acquafredda di Maratea, Italy
- **Bionanotechnology: Development and Application of Principles of Nano- and Bio-Sciences to Sensing, Diagnostics & Therapy**
Exploratory Workshop EW08-005
31 August – 2 September, Sintra, Portugal
- **Neurodevelopmental Programming and Phenotypic Plasticity: Implications for Healthy Ageing and Longevity**
EUROCORES EuroSTRESS – Summer School
9-13 September, Rhodes, Greece
- **Understanding the Genetic, Physiological and Psychological Mechanisms Underlying Disabling Medically Unexplained Symptoms and Somatisation**
Exploratory Workshop EW08-041
10-12 September, Munich, Germany
- **Computational Principles of Sensorimotor Learning**
RNP ERNI-HSF – Workshop
13-15 September, Kloster Irsee, Germany
- **Gene Expression to Neurobiology and Behaviour: Human Brain Development and Developmental Disorders**
ESF-EMBO Research Conference
20-25 September, Sant Feliu de Guixols, Spain
- **Can Complexity Improve European Health Policy?**
Exploratory Workshop EW08-007
23-25 September, Lancaster, United Kingdom
- **Stem Cells for Bone Regeneration**
RNP REMEDIC – Workshop
8-10 October, Bertinoro, Italy
- **EMRC Core Group and 55th Plenary Meeting**
12-14 October, Copenhagen, Denmark
- **Multidisciplinary Workshop on Suffering**
Exploratory Workshop EW08-024
15-17 October, Luxembourg, Luxembourg
- **Neuropsychiatric Disorders Associated with Streptococcal Infection in Europe**
Exploratory Workshop EW08-025
22-24 October, Budapest, Hungary
- **Proteomics and Bioinformatics**
RNP Fuminomics – Workshop
22-25 October, Nouan-le-Fuzelier, France
- **The Adolescent Brain. New Insights from Clinical and Animal Models**
Exploratory Workshop EW08-033
22-25 October, Rome, Italy
- **Biobanks II**
ESF-UB Conference in Biomedicine
7-12 November, Sant Feliu de Guixols, Spain
- **Rare Diseases II: Hearing & Sight Loss**
ESF-UB Conference in Biomedicine
22-27 November, Sant Feliu de Guixols, Spain
- **Exploring New Directions for the Assessment of Dietary Intake and Physical Activity Levels in Population Studies that Aim to Tackle the Obesity Epidemic Across Europe**
Exploratory Workshop EW08-011
25-27 November, Middlesbrough, United Kingdom
- **Global Changes and Health**
ESF-UB Conference in Biomedicine
To be announced, Sant Feliu de Guixols, Spain

ESF

The European Science Foundation (ESF) is an independent, non-governmental organisation, the members of which are 80 national funding agencies, research-performing agencies, academies and learned societies from 30 countries.

The strength of ESF lies in the influential membership and in its ability to bring together the different domains of European science in order to meet the challenges of the future.

Since its establishment in 1974, ESF, which has its headquarters in Strasbourg with offices in Brussels and Ostend, has assembled a host of organisations that span all disciplines of science, to create a common platform for cross-border cooperation in Europe.

ESF is dedicated to promote collaboration in scientific research, funding of research and science policy across Europe. Through its activities and instruments ESF has made major contributions to science in a global context. The ESF covers the following scientific domains:

- Humanities
- Life, Earth and Environmental Sciences
- Medical Sciences
- Physical and Engineering Sciences
- Social Sciences
- Marine Sciences
- Nuclear Physics
- Polar Sciences
- Radio Astronomy Frequencies
- Space Sciences

EMRC

The European Medical Research Councils (EMRC) is the membership organisation for all the medical research councils in Europe under the auspices of the ESF. EMRC's mission is to promote innovative medical research and its clinical application towards improving human health. EMRC offers authoritative strategic advice for policy making, research management, ethics and better health services. In its activities, EMRC serves as the voice of its Member Organisations within the European scientific community. EMRC disseminates knowledge and promotes the socio-economic value of medical research to the general public and decision makers.

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