



# FEPS

## Federation of European Physiological Societies

### FEPS NEWSLETTER

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**Secretariat  
FEPS Newsletter:**

Sonia Froidmont  
Dept. of Physiology  
University Maastricht  
P.O. Box 616  
6200 MD Maastricht  
The Netherlands

Phone: +31-43-3881200  
Fax: +31-43-3884166

[s.froidmont@fys.unimaas.nl](mailto:s.froidmont@fys.unimaas.nl)

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Copenhagen, Denmark  
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Please find below this month's FEPS NEWSLETTER.  
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### Letter of the president of FEPS

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Dear Members of the national European Physiological Societies,

Today the **first issue** of the monthly Newsletters of the Federation of European Physiological Societies (FEPS) is launched and sent by e-mail to all individual members of the national Physiological Societies gathered together under the FEPS umbrella.

Here we will inform you about news where FEPS as an organization is directly involved, but news from national Societies will also be published when they are of general interest – including information about meetings and courses which are open for physiologists from other nations.

Several important changes have now been taken place in FEPS. The decision after the FEPS Congress in Nice in 2003 to arrange annual meetings *together* with national Societies was substantiated this year with the meeting in Bristol July 20-23, 2005, – organized by the Physiological Society of the United Kingdom and the Republic of Ireland, and FEPS. It was an excellent meeting with lectures, symposia, workshops, demonstrations, free communications and poster sessions – much to choose from for every taste! Many thanks are due to the Meetings



Secretary Bridget Lumb, the International Secretary David Eisner, the central office in London with Nick Boross-Toby, Helen Close and many others, and all the local organizers who made an outstanding effort to secure the great success. A detailed account of the highlights of the meeting will be published in **PHYSIOLOGYNEWS** - the news letter of the Physiological Society. There were many "continental" Europeans present - most of them were engaged in workshops or symposia. FEPS supported workshops on teaching Physiology in European Faculties of Medicine and the Application of Stem Cells in Physiological Research, together with Alex Verkhratsky's inaugural FEPS Lecture on the *Physiology and pathophysiology of the calcium store in the endoplasmic reticulum of neural cells* attracted a lot of attention.

In the first FEPS Newsletter there is further information on the two upcoming Joint Meetings in 2006 and 2007 - the next year with the German Physiological Society - in Munich, March 26 -29, 2006, and in Bratislava, September 10-14, 2007 - the 2007 meeting is a joint project of three parties: The Slovak Physiological Society, FEPS and the Physiological Society of UK and the Republic of Ireland. Please mark these dates in your calendar already now! The scientific programs of both meetings are outstanding and these meetings are offering all of you an excellent opportunity to meet old friends and to make new ones among the European physiologists.

To make the scientific meetings and other FEPS supported activities a great success unimpeded communication lines between the FEPS office and all individual members of the national Societies is now top priority. Therefore, it is of great importance for FEPS to have an official Journal as a joint platform. In 2002 FEPS received an invitation from *Acta Physiologica Scandinavica* to serve as the official FEPS Journal. With full support of the FEPS Council meeting in Budapest in December 2004 and approval by the national member Physiological Societies in March 2005 the agreement was reached that *Acta Physiologica* - now without the regional *Scandinavica* at the end - will be the official FEPS Journal starting with the September 2005 issue. The Table of contents of each volume of the *Acta* will be published in the monthly FEPS Newsletters. On top of that, each individual member of all European National Physiological Societies will have free electronic access to all papers published in our journal. For more details you are referred to the Editorials by the Journal's Chief Editor and the President of the Scandinavian Physiological Society and by FEPS, published in this FEPS Newsletter.

On behalf of the Executive Board of FEPS, I would like to express my confidence in the future of European Physiology. With the *Acta* as the official FEPS journal, annual joint national Physiological Societies-FEPS meetings, and FEPS supported workshops and symposia we have created a solid and fertile basis for further developments in physiological research and teaching in the European region.

Hans Hultborn,  
President of the Federation of European Physiological Societies.

**Joint Meeting**  
Of  
**The German Physiological Society**  
And  
**The Federation of European Physiological Societies**

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**Munich, March 26-29, 2006**

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**Venue:**

Geschwister-Sholl-Platz 1, 80539 Muenchen

**Preliminary featured topics:**

Development physiology  
Neurophysiology  
Neuronal networks  
Ion channels  
Cardiovascular physiology  
Angiogenesis  
Smooth muscle physiology  
Physiology of growth responses  
Intracellular signal transduction  
Renal physiology  
Respiratory physiology  
The physiology of pain

Dear Colleagues:

We invite you to come to Munich in 2006!

The 85th Annual meeting of the German Physiological Society will be held from March 26th to 29th, 2006, in conjunction with the Federation of European Physiological Societies (FEPS). The conference will take place at the Ludwig-Maximilians University, in the heart of the Bavarian capital.

Throughout a program of oral and poster sessions, plenary lectures and symposia, leading investigators will present the latest insights from all fields of physiology, with a special emphasis on current "hot topics". There will also be a special platform organized by young European scientists, with their own selected topics and sessions.

In addition to the scientific exchange, we hope that this meeting will provide a platform for job recruitment and the initiation of new collaborations among physiologists throughout Europe.

Last, but certainly not least, we invite you to explore Munich, a city rich in arts, culture and history and look forward to hosting you at an outstanding scientific meeting in a world class social and cultural setting.

For the local organizers  
Ulrich Pohl

**Contact information:**

Prof. Dr. med. Ulrich Pohl  
Physiologisches Institut der LMU  
Schillerstrasse 44  
80336 Muenchen  
GERMANY

Phone : +49(0)89 2180 75387  
Fax: +49(0)89 2180 75378  
Email: [physio2006@med.uni-muenchen.de](mailto:physio2006@med.uni-muenchen.de)

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in the Munich area, please, visit:

[Http://www.muenchen-tourist.de](http://www.muenchen-tourist.de)

or email to:

[Tourismus@muenchen.de](mailto:Tourismus@muenchen.de)

**Joint Meeting**  
of  
**The Slovak Physiological Society**  
and  
**The Physiological Society**  
and  
**The Federation of European Physiological Societies**



**BRATISLAVA, September 11-14, 2007**

Dear colleagues

We are delighted to invite you to this Joint Meeting in the capital of Slovakia.

With your help, suggestions and participation the most rapidly developing areas and hot topics will be adequately represented in plenary lectures, symposia, and open oral & poster presentations. A special platform will be organized for young European scientists. We will soon be asking for Symposium proposals, so that you can identify your recent fields of interest and help us to organize what will be an outstanding meeting.

We hope you will enjoy the science presented at the Joint Meeting and the friendly atmosphere in Bratislava, as well as its history, cultural life and beauty.

On behalf of the local organizers, Vladimír Strbák

## Report of prof. Eva Sykova of the Stemcell workshop in Bristol 2005

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The workshop entitled "The therapeutic potential of stem cells" preceded the opening of the Joint Meeting of the Physiological Society and FEPS at the University of Bristol, on 20<sup>th</sup> July 2005. The goal of the workshop, financially sponsored by FEPS, was to bring together stem cell researchers from across many disciplines to share their views and current research, both in the lab and the clinic.

The session began with an introduction by Professor Eva Sykova, who talked in general about stem cells and their potential use in cell-mediated therapies. She then introduced the first speaker, Dr. Luciano Conti from the University of Milano, Italy. Dr. Conti has generated a new method to isolate neural stem cells. These cells are marked with GFP and injected into the hippocampus, where they integrate with the host tissue but do not form tumours. In addition, he has carried out a detailed study of signalling events in these cells with an emphasis on the Shc family of adaptor molecules, which play an important role during the transition from proliferating neural stem cells to post-mitotic neurons. He described the presence of ShcB and ShcC in specific neuronal populations, suggesting a potential specific requirement of these two molecules in the survival/maintenance of defined neuronal subtypes. Lastly, Dr. Conti described the potential of using genetically engineered neural stem cells in the treatment of Huntington's disease.

The next speaker was Professor Sykova from the Institute of Experimental Medicine in Prague, Czech Republic. She described the use of adult stem cells to treat brain and spinal cord injury. Prof. Sykova's group has developed a technique for labelling stem cells *in vitro* with super-paramagnetic iron-oxide nanoparticles, prior to transplantation in animal models of injury, and the subsequent use of magnetic resonance imaging to non-invasively track the implanted cells *in vivo* and to monitor their survival, migration, differentiation and ultimate fate in the host organism. Other studies, focused on the use of biopolymer hydrogels to bridge spinal cord lesions, have shown that such hydrogels are promising candidates for bridging gaps in the CNS due to injury or degeneration. Finally, Prof. Sykova reported the preliminary results from a Phase I clinical trial using the transplantation of autologous bone marrow cells to treat patients with acute and chronic spinal cord injury.

Dr. Sue Barnett from the University of Glasgow spoke next and presented data on the use of cells from the olfactory system in CNS repair. She described the unusual regenerative properties of the olfactory system, which have led to the use of cells from this tissue as potential candidates for transplant-mediated repair of spinal cord injury. She described her work on neurospheres generated from the olfactory bulb and mucosa and described their differentiation potential. In addition, she presented the current view that mixed preparations of olfactory cells may have advantages for repair. Dr. Barnett described results from transplanting mixed populations of olfactory cells marked with GFP into a dorsal column lesion.

The next speaker was Prof. Neil Scolding from the University of Bristol, who talked about stem cells and the treatment of multiple sclerosis. He described current views on MS pathology, which includes not only the loss of oligodendrocytes and their myelin sheaths but also the loss of axons and the need to protect these axons over the course of the disease. Prof. Scolding's work focuses on the use of human bone marrow stem cells as candidates for the transplant-mediated repair of MS plaques. He is currently studying the biology of these cells *in vitro* and transplanting these cells into two rat models: the persistently demyelinated ethidium bromide - irradiation lesion and EAE.

Christof Stamm from the University of Rostock in Germany introduced the audience to cardiac tissue engineering, a relatively new interdisciplinary approach using autologous cells to replacing diseased cardiovascular tissue. Dr. Stamm reported on a phase-I clinical study examining the transplantation of autologous bone marrow-derived adult stem cells to regenerate infarcted myocardium in patients undergoing coronary artery bypass surgery. In the initial cohort of patients, there were no complications observed following transplantation; scintigraphic imaging demonstrated significantly improved local perfusion in the stem cell-treated infarct area. Dr. Stamm and his colleagues conclude that bone marrow stem cell transplantation for myocardial regeneration can be safely performed in humans and that there is evidence of improved revascularization and contractility in the infarct areas; however, further controlled studies are needed to determine the clinical benefit of such transplantation.

Finally, Prof. Karel Smetana from Charles University in Prague, Czech Republic, discussed epidermal stem cells (ESC), a pool of cells responsible for self-renewal and regeneration in the epidermal epithelium. He described current efforts to characterize these cells phenotypically, including recent studies of lectin expression, particularly that of galactin-1, as well as the expression of integrin receptors and keratins 15 and 19. Evidence indicates that the establishment of squamous cell carcinoma may be connected with mutations in epidermal stem cells or their progenitors. Perspectives for future research include the use of ESC in the treatment of skin defects and the development of new therapeutic strategies for carcinomas based on insights into the mechanisms of ESC differentiation.

All of the talks were accompanied by an extensive discussion with the audience of approximately 50 – 70 attendees, including both senior faculty members and students.

## **Acta Physiologica** **The new official Journal of the Federation of European Physiological Societies (FEPS)**

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With this issue, Acta Physiologica Scandinavica is the official Journal of the Federation of European Physiological Societies (FEPS). This is in line with a development, initiated in 1989, to convert the journal from a provincially Nordic to an international journal. From its start in 1889, the main aim of the Journal (then Skandinavisches Archiv für Physiologie) was to constitute a forum for Scandinavian (Nordic) physiologists to publish their scientific contributions to an international public. It took as long as to 1989 until the decision was taken to open the Journal to contributions from all over the world. As a result of this change in policy, from 1997 on the non-Nordic submissions have outnumbered the Nordic ones and today only one out of four manuscripts originate from the Nordic countries. To further underline the fact that the Journal is now an international, rather than a Nordic, journal of physiological sciences, the abbreviation APS to designate the Journal was introduced in 2004. Within the framework of its collaboration with the Federation of European Physiological Societies (FEPS), the Journal provides the Federation with a publication forum for Society matters, abstracts and manuscripts and, in addition, contributes to the economic basis of FEPS. As a result of the collaboration, the Journal broadens its international basis, thus increasing the number of scientists who perceive the journal as a natural publication choice. We believe that this broadening enhances the possibility to secure the future of the journal. It is natural that the Scandinavian Physiological Society (SPS) strengthens its relation to FEPS, since SPS is one of the 26 member societies of FEPS. In relation to this new role of the Journal, two other changes will occur. Firstly, the Editorial board will undergo a successive further internationalization, with an increased participation from the other FEPS societies being an important component. Secondly, the Journal will change its name to Acta Physiologica, i.e. 'Scandinavica' will be deleted in the name, to emphasise the international character of the Journal. This can also be seen as a tribute to the former Chief Editor, Professor Börje Uvnäs, who during his last years as Chief Editor repeatedly advocated this change, but without getting the necessary majority for it. For technical reasons, the name change will occur with the first issue of 2006. We believe that the close collaboration between Acta Physiologica and FEPS, which is initiated with this issue, will strengthen the development of both parties and, for the long-term, also benefit the field of Physiology.

Peter Bie  
President, SPS

Jan Henrikson  
Chief Editor, Acta Physiologica  
Scandinavia

Ole Skøtt  
Secretary General, SPS

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The Federation of European Physiological Societies (FEPS) was founded in 1991 with the aim of establishing a common platform for European physiologists. At present 26 national Physiological Societies are member of FEPS. The major objectives of FEPS can be summarized as follows:

- 1. to promote and foster the exchange and diffusion of concepts and information between physiologists and the societies of physiology in the European region*
- 2. to facilitate the dissemination of information concerning the activities of the member societies*
- 3. to encourage joint meetings of two or more member societies*
- 4. to facilitate the exchange of invitations between member societies to national or regional meetings*
- 5. to advance knowledge in the scientific disciplines relating to physiology by supporting and providing suitable mechanisms for training programs in physiology*
- 6. to advance the exchange of graduate students and scientists within Europe and on an international scale*
- 7. to stimulate international scientific research projects in Europe.*

Certainly such a Federation needs a common rostrum, preferably a regular Journal with a strong affiliation to member Societies and therefore sharing common goals with the individual members. With the new agreement between FEPS and *Acta Physiologica Scandinavica / Scandinavian Physiological Society* in April 2005 this has now been achieved. Under this agreement the name of the Journal will be changed into *Acta Physiologica* and FEPS will publish news and views on dedicated FEPS-pages. The *Table of Contents* of each volume of the Journal will be e-mailed to all individual members of the national Societies together with a short *FEPS News Letter* – every month. The electronic version of *Acta Physiologica* will also be available free of charge for all individual members via the website of FEPS through codes distributed by their respective National Societies. In addition *Acta Physiologica* will provide financial support to a variety of FEPS activities.

Abstracts from meeting where FEPS is a partner will be published in *Acta Physiologica* – and be available electronically and be citable. All national Societies are invited to publish their own meetings abstracts following the rules of the Journal. FEPS also aims to facilitate invited reviews and “special issues” from front-line Symposia within Europe. We are convinced that the cooperation between FEPS and *Acta Physiologica* will mark an important new development for both parties and will boost physiological science in Europe.

Hans Hultborn  
President of FEPS

Ger van der Vusse  
Secretary General of FEPS





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