EUFEPS

NEWS Letter

European Federation for Pharmaceutical Sciences June Vol 16 No2 2007

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LEADING ARTICLE

Institutional Peer Review:

'The ultimate tool to advance the pharmaceutical sciences?'

In a number of countries in Europe, such as the UK, the Nordic Countries, Switzerland and the Netherlands, Institutes/Faculties of Pharmaceutical Sciences are regularly visited by peer review committees to evaluate their science programmes. Every few years a committee, preferably with a strong delegation of international experts, knocks on the institute's doors and looks at past performance and the plans for the future of the institute, of the departments and sometimes of the individual faculty members.

Previous knowledge

When digging into the literature, there is surprisingly little published on the pros and cons of this peer review process in the life sciences arena. How much hard data do we have, showing that institutional peer review is indeed doing what it is supposed to do: improve quality?

There are some performance parameters in terms of citations and relative citation impact of articles showing that Switzerland, The Netherlands, UK and the Nordic countries are indeed top performers (see table 1 on overall publications and citations). Is there a causal relationship? What is the link between performance and peer review?

Advantages of the peer review process

Table 2 lists some advantages of the peer review process for the institute, its leadership and the active researcher, as we see them.

Table 2
Advantages of institutional peer review process:

For the leadership

- The institution becomes benchmarked in an international context
- Strategic thinking is stimulated by showing the institution's departments the overall picture: where are we going?
- It helps to identify quality and emerging centers of excellence at the institution
- It pushes scientific flexibility and drive
- It stimulates the publication output
- It delivers a rationale for implementation of organisational changes
- It may point to room for improvements in leadership

For the institutional scientist

- It forces them to defend their research focus and to analyse strengths and weaknesses of the competition
- It may confirm, and thereby support, the chosen research line or it may give rise to reconsideration
- It may support further engagement in new scientific areas

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For the assessor

- It gives inspiration for his/her own institution and personal research planning
- It stimulates networking

For the society

- It makes the institution visible
- It may give taxpayers transparency on government spending

Personal experience

Daan Crommelin has as, scientific director of the Utrecht Institute for Pharmaceutical Sciences (UIPS) gone through three institutional peer reviews, and both of us have served on a number of reviewing panels in other countries. Taking everything together, we must conclude that peer reviews always turned out to be valuable for us. We always learned, irrespective of the side we were on: reviewing or being reviewed. And we took advantage of the lessons learned!

Role for EUFEPS

EUFEPS' mission is to serve and advance excellence in the pharmaceutical sciences and innovative drug research in Europe, including in training and education, and to represent the interests of scientists engaged in drug research and development, drug regulation, drug utilisation, and drug policy making. Isn't it time to share views on these institutional peer reviews? What are the best practices? What do you need: a strategic plan, a site visit, a horizon scan? How important are (weighted) citation analyses? Isn't it time that EUFEPS experts sit together to discuss the peer review process and analyse how to increase its impact on the pharmaceutical sciences, with as little bureaucracy as possible, not being afraid of criticising or being criticised, if it is for the good of our pharmaceutical sciences? May we challenge you, EUFEPS member and Newsletter reader, and invite you to discuss institutional peer reviewing practices in the EUFEPS Newsletter and/or in a EUFEPS organised workshop?

	Production of research articles		Relative citation impact of articles*	
United States	1,269,036	1	1.42	2
United Kingdom	354,724	2	1.21	4
Japan	337,810	3	0.85	18
Germany	313,712	4	1.09	9
France	231,550	5	1.01	13
Canada	164,182	6	1.21	5
Italy	150,013	7	0.95	17
Russia	127,965	8	0.32	29
China	115,403	9	0.41	27
Spain	106,023	10	0.85	19
Australia	103,648	11	1,01	12
The Netherlands	93,129	12	1.25	3
India	73,787	13	0.37	28
Sweden	72,469	14	1.13	8
Switzerland	65,878	15	1.44	1
South Korea	57,399	16	0.65	21
Belgium	47,685	17	1.09	10
Israel	46,336	18	1.06	11
Taiwan	44,457	19	0.65	22
Poland	43,518	20	0.55	24
Brazil	43,373	21	0.55	25
Denmark	37,086	22	1.17	6
Finland	34,371	23	1.15	7
Austria	33,854	24	0.98	15
Norway	23,195	25	1.01	14
Turkey	23,013	26	0.44	26
Greece	21,736	27	0.71	20
Mexico	21,014	28	0.60	23
New Zealand	20,961	29	0.96	16
Ukraine	20,304	30	0.28	30

* The citation impact is normalised for the worldwide average per discipline. This is the average number of citations received by all research articles in the professional journals (worldwide average*). Self-citations of researchers of their own articles are excluded.

Source: CWTS/ISI. Adjusted by CWTS

Yours,

Daan J.A. Crommelin and Ole J. Bjerrum
President-Elect EUFEPS and
Immediate Past-President EUFEPS

5th International Postgraduate Research Symposium on Pharmaceutics (IPORSIP-2007)

September 13-15 • 2007 • Istanbul • Turkey

The symposium is a unique platform which promotes the relationship between scientists throughout the world and encourages postgraduate fellows to study in the new areas of Pharmaceutics.

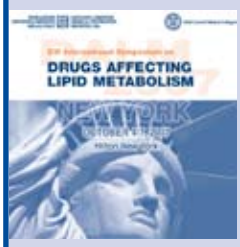
Organised by;

Istanbul University, Faculty of Pharmacy, Department of Pharmaceutical Technology, 34116 Istanbul Turkey
e-mail: info@iporsip.org
http://www.iporsip.org
Co-sponsored by EUFEPS

For further information and registration please go to http://www.iporsip.org/general_information.asp

XVI International Symposium on Drugs affecting Lipid Metabolism

October 4-7 • 2007 • Hilton New York • New York • USA



Plenary sessions;

- HDL
- Nutrition, Diabetes and Cardiovascular Disease
- The Atherosclerotic Plaque: from Biology to Clinic
- Hypolipidemic Therapy and Organ Disease; Beyond the Heart

There will be a debate;

Pharmacological Therapy: Increasing HDL vs. Decreasing LDL

The program also includes numerous symposia and workshops

Organised by the Giovanni Lorenzini Medical Foundation, Houston, USA. *Co-sponsored by EUFEPS*

For further information and registration please go to; http://www.lorenzinifoundation.org/dalm2007.html

Pharmaceutical Science in Europe

Part 2: "Where to go"

Understanding Pharmaceutical Research

On a European level, "New Safe Medicines Faster" was the initiative, with which EUFEPS was successfully able to make known that "drug discovery" is pharmaceutical research, which should be supported and promoted, but also that "drug development" deserves the same recognition and funding as research. The success story of the "New Safe Medicines Faster" initiative signified a growing public awareness of a comprehensive definition of science from "notitia" all the way to "ars" – from perception to the well-managed realisation.

Redefining Fields of Pharmaceutical Research

The setting up of subjects or individual disciplines in science has already been discussed. The cumbersomeness, which has come about due to this division – all the way to the much quoted 'ivory tower' syndrome – has been implied as well. Abandoning the classical division of disciplines seems to be necessary to live up to the new requirements and to pave the way for a new dynamism within science as a whole. Also in the Pharmaceutical Sciences, a coherent new definition of the research fields is urgently needed. The fields should orient themselves primarily – but not exclusively – on the pharmaceutical discovery, development and drug utilization pathways and will be all-encompassing. EUFEPS will discuss with the best researchers within the individual fields and will try to get their advice and input. These experts will include trained pharmacists, in addition to biologists, chemists, medical doctors and health professionals, as well as scientists from other disciplines. The "scientific community" of the Pharmaceutical Sciences should be open to all those whose professional life is principally dedicated to the task of helping people through the use of medicines and drugs. The commitment to the complexity of this science and the need, as well as the obligation, to constantly further educate oneself is quite clear from the start for these scientists and academics. It should be clear to the trained pharmacists, who have the privilege of being placed right in the centre of this science, that only the dedication to be the best will consolidate their position in the future.

The Integration of Sectors

In the end, the integration of Pharmaceutical Science also means bringing together researchers that work in industry with those that work in academia and with those scientists that work in regulatory authorities. It is just this bringing together of the three important professional fields within Pharmaceutical Science – academia, industry, regulatory – where EUFEPS is so successful at a European level. The formula for success is high-quality workshops, symposia and conferences that are also up-to-date. Only in this manner can one interest scientists in industry – who are under a lot of time pressure as well as pressure to succeed – to meet creative "underfunded" university researchers, as well as the more reserved experts from the regulatory authorities so that they all enter into a scientific discourse.

Main Topics in Pharmaceutical Science – Systems Biology

As examples of up-and-coming topics, which were recognised early on by EUFEPS as being significant and which were the subjects of conferences and workshops organized by EUFEPS, one can name "Safety Sciences", "Biomarkers" and "Systems Biology". Due to its fundamental importance, the term "Systems Biology" will be explained here in more detail. "Systems Biology" defines – after decades of over-deterministic orientation in research – a nearly "liberating" new approach within "Life Science" research, by which the genotypes and phenotypes within a biological system are examined in an interlinked and jointly correlated manner. Genome, proteome, metabolome: these are the levels which are being examined to the same degree and in the same manner. Applying the new approach, we can draw from an ever-growing, gigantic wealth of data, which can only be handled and interpreted with the help of "*in silico*" methods (Bioinformatics). "Systems Biology" is almost tailor-made for pharmaceutical research. Pharmacists have for a long time been working with biological systems and examine these at various levels. The range goes from biochemical systems, e.g. the arachidonic acid cascade, all the way to physiological systems, e.g. the nervous system. For pharmaceutical research as a whole, "Systems Biology" nowadays provides a refreshing challenge to examine and work on problems comprehensively. "Block a receptor with an antagonist or prevent its expression"; that is the therapeutic alternative in the era of Systems Biology. However, with the deactivation of the receptor one has not reached one's goal. The rebuilding of the homeostasis of the cell, of the tissue and, finally, of the organism – i.e. the recovery of the human being – is the aim. To attain this, detailed knowledge of all of the processes that occur after the introduction of the drug into the system and after its interference with the system should be sought. These are exciting times for committed pharmaceutical researchers. It is also a big chance for the Pharmaceutical Sciences.

The "New" Industrial Revolution

For more than 40 years, researchers at universities have been constantly hearing about crises for universities and have taken part in many reforms. It seems worthwhile to reflect on the causes of such a situation. Is it all coincidence? When the present generation of professors was younger, they read books such as "Brave New World" by Aldous Huxley or "1984" by George Orwell. Many of the things, which back then we shuddered to think about, have been surpassed in the modern world by reality. Drastic changes have already taken place and we barely notice them.

The basic tools to make a real science out of History were "ricorsi" – this means: observing and analysing the recurrence of events – of course always within the framework and conditions of a new era. This is how Giambattista Vico, the founder of historical research, did it. It is most notable that we are not taking note of such a recurrence, which is taking place in our time. We are in the middle of an Industrial Revolution in which human labour is being replaced by machines, just as in the middle of the 19th century. However, this time >>>

around it is not the mechanical work of mankind which is being replaced; rather, it is the mental work which is being taken on by "thinking machines". This is a challenge. But, of course, one should not just point out the negative effects of this development.

On Knowledge Coding and "Tradition" of Knowledge

We are delighted about computers just as we are about cars. However, the human mind is something very special. Being human has to do with biological evolution only in a limited manner, in particular if we have a look at our intellectual and cultural achievements.

It is not the DNA-coded tradition, which promotes this development. Rather, it is a 60,000 year old tradition, which has led to the word, then the picture, then to spoken language, to music and poetry, on to written language, to the book roll, the codex, to the printed book and finally to electronic communication. This development is now ready and poised for a type of "quantum leap" with the help of "*in silico*" knowledge generation.

In reality, every insight made for the first time by man anatomically manifests itself within the human brain as a new, synaptic link. This link has so far not existed in any other human brain. "An exit is found out of a labyrinth" or "Long processes of thought are shortened" is what one could say, metaphorically speaking. Even the neuronal architecture of an intelligent human being takes on the most fantastic forms in the space of his or her lifetime. It is not genetically pre-programmed and therefore lost in the short or long term, unless the knowledge is transmitted i.e. shared. The most important basis for this transmission is human language. It is coded as written language. Only through the progressively more efficient transmission of knowledge from one generation to the next was it possible to create the quite complex knowledge and cultural society of mankind that we have nowadays.

On the Evolution of Machine Knowledge

The amount of generated data ("knowledge"), effectively supported by Information Science, i.e. in Bioinformatics, is overwhelming. New algorithms are being developed continually, not only to collect and record the ever-increasing data wealth, but also to be able to answer questions and problems posed in a more efficient and relevant manner. Maybe, in the near future, to also conceive new questions. New insights and findings are not cropping up for the first time in human brains as new synaptic links; rather they are being generated in a machine and emerge as the "output" of this machine. Even the evolution of the method to generate new knowledge is disconnecting itself more and more from mankind and is being geared towards machines and their machine language. Here we have a paradoxical situation. The universities, which are teaching institutions using book knowledge and which should feel just as challenged nowadays by this development, just as the trade guilds were at the time of the first Industrial Revolution, do not perceive or take note of this fundamental "questioning" of their functions. They more or less indulge in half-hearted, quite irrelevant, reforms – maybe due to a type of unconscious unease. However, in the light of the new developments, it is obvious, if there is going to be a "European Institute of Technology" then – in the "historical recurrence" of the polytechnical teaching institutions – it should be a "European Institute of '*in silico*' Technology"!

Pharmaceutical Sciences "in silico"

Ever since the evolution of the "Rational Drug Design", for about the last 30 years, "*in silico*" has become a regular topic and working field within Pharmaceutical Science. EUFEPS as well is – knowing the significance of the "*in silico*" revolution/evolution for the Pharmaceutical Sciences – intensively working on this topic. It is evident that "*in silico* knowledge generation" and "*in silico* science communication", i.e. machine generation and transmission of knowledge, are big topics and they must be dealt with in a detailed manner. However, one should not forget that a parallel evolution of knowledge, which is taking place outside the human brain, also has significant ethical consequences. "Humans should determine the machine and not vice versa!" Therefore the fundamental topic of "Ethics and *in silico* sciences" should not be forgotten within the "*in silico*" Pharmaceutical Sciences.

The New Pharmaceutical Scientist

When entire encyclopaedias can be stored on a small "chip", what is the knowledge that is stored in a human brain worth? Should students, in the manner of ancient Egyptian scribes, take down all the notes whilst sitting in a lecture and listening to a professor so that they can take home with them as much knowledge as possible? The answer is crystal clear. If a lecture is not an "event" in which the lecturer will adequately present himself or herself, as well as his or her interpretation of a certain topic, if the lecture is not a "happening" in which the student fully participates, then this lecture actually does not have a claim of validity anymore. Those who still sit in the old "ivory tower" do not automatically have the privilege of knowledge. The knowledge in the "ivory tower" can also be found on a chip. Knowledge – even when it is of the highest level – is easily accessible and available nowadays.

In the future, the researchers at universities will not be able to limit themselves just to generating new knowledge and passing this on. Rather, going from generation to generation, they must redefine the canon of knowledge that deserves to be put into the minds of people for them to work with and ponder on. This is a huge task, mainly for politicians dealing with science as well as for universities. The European Federation for Pharmaceutical Sciences will do its utmost in contributing here.

In the long run, the tasks of scientists and academics will have to do with being able to deal with available knowledge and with ensuring that the human dimension is not lost. Scientific questions and academic queries have to orientate themselves much more towards the needs of society as a whole. Food and nutrition, health, the environment – these are all fully relevant themes. However, one should also not forget that a meaningful life experience and the freedom to shape one's life are fundamental human rights. Only appropriate and relevant scientific work can ensure that there is a chance in reaching these goals. The fundamental ethical commitment of the pharmaceutical profession and the width and scope of the requirements posed by this discipline should mean that Pharmaceutical Science is capable of bringing forth its next generation of young scientists, researchers and academics, who conform to this new picture.

Christian R. Noe, Vienna
President of EUFEPS

EUFEPS Branch Office
for In-silico Systems and Learning

On May 18, 2007, EUFEPS and the University in Vienna signed a contract to establish and maintain a EUFEPS Branch Office for In-Silico Systems and Learning. The Office will be a European centre for coordination, management and support of all kinds of initiatives such as "*in-silico* learning", "computer-aided learning", "eLearning", and "blended learning", in the field of pharmaceutical sciences. The Office will also serve a "EUFEPS Steering Committee: *In-Silico* Systems and Learning". The activities aim at a sustainable improvement in academic learning and other education and training in the pharmaceutical sciences, by extending the deployment and integration of state-of-the-art information technology in the pharmaceutical curricula, primarily in Europe.

The University will provide the human and material resources, which are required for operation of this Office, for a period of five years, with the option of extending this period, if both parties agree to do so. Professor Norbert Haider (Department of Drug and Natural Product Synthesis, University of Vienna) will be the Chief Executive of the Office. The University will also provide part-time administrative staff and the office space required.

Obviously, the University of Vienna and EUFEPS share an interest in developing European initiatives for pharmaceutical sciences education and training, including the use of new technology. The general tasks and goals of the University of Vienna are research and teaching of the very highest quality. Research and teaching are understood as an indivisible unity: research-driven teaching will promote the scholarly interest of students, will encourage participation in research activity, prevent the mere reproduction of an apparently fixed body of knowledge, and stimulate the pedagogical achievement of the teaching community. The mission of EUFEPS is to serve and advance excellence in the pharmaceutical sciences and innovative drug research in Europe, including in training and education, and to represent the interests of scientists engaged in drug research and development, drug regulation, drug utilisation, and drug policy making.

Hans H. Linden
Executive Director EUFEPS

European Workshop on Computer-Aided Learning in the Pharmaceutical Sciences

September 24-25, 2007 • Vienna • Austria

This workshop will be jointly organised by the University of Vienna, Faculty of Life Sciences, and the European Federation for Pharmaceutical Sciences (EUFEPS). It will address all relevant aspects associated with the employment of computer-aided learning / eLearning / blended learning / *in-silico* learning in the pharmaceutical academic education. Target audience: lecturers and tutors from all pharmaceutical disciplines. The workshop will be held in English.

Main topics:

- How can computer-aided learning support teaching/learning in the Pharmaceutical Sciences?
- Strategy, didactic, and infrastructure considerations
- Content creation and management, copyright issues
- Application examples and real-life scenarios
- Hands-on experience

Venue:

University of Vienna, Pharmazie-Zentrum, Althanstraße 14, A-1090 Vienna

Date and time:

start: Monday, September 24, 2007, 14:00
end: Tuesday, September 25, 2007, 13:00

Contact:

Prof. Dr. Norbert Haider
Department of Drug and Natural Product Synthesis
University of Vienna
Althanstraße 14, A-1090 Vienna, Austria
mail: norbert.haider@univie.ac.at, phone: +43 1 427755624, fax: +43 1 42779556

Workshop website:

http://merian.pch.univie.ac.at/eufeps/workshop/

Fees:

100,- EUR for regular participants
50,- EUR for students (proof required)

Registration:

Please register by downloading the registration form either in PDF format or RTF format and returning the completed and signed form by mail or fax to the adress indicated. As the number of participants will be limited, it is recommended to register as soon as possible.

Registration Deadline:

August 24, 2007

Conference on Bioavailability (BA) and Bioequivalence (BE)

Focus on Physiological Factors and Bioavailability

October 1-2, 2007 • Royal Olympic Hotel, Athens, Greece

Sessions will include;

- Physiological factors affecting drug absorption
- Role of pre-systemic effects on bioavailability
- Impact of variability in BE studies
- Unresolved issues in BA/BE Regulations

Organisers;

European Federation of Pharmaceutical Sciences, EUFEPS
Cooperation in the field of scientific and technical research, COST B25

Registration is available via the Congresses and Conferences link of EUFEPS Online; http://www.eufeps.org/

Please direct all inquiries regarding registration, accommodation or payment to Congrex Sweden AB at: Email bae.registration@congrex.com Phone +46 8 4596600 Fax +46 8 6619125

EUFEPS
EUROPEAN FEDERATION FOR PHARMACEUTICAL SCIENCES

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FIP INTERNATIONAL PHARMACEUTICAL FEDERATION

The Hebrew University of Jerusalem Faculty of Medicine School of Pharmacy

Tenure Track in The School of Pharmacy

A tenure track faculty position is available in The School of Pharmacy for the Department of Pharmaceutics.

Applicants for this position should have a Ph.D degree and postdoctoral training in pharmaceutics and related fields. Excellence in research is a major factor for consideration by the search committee.

The successful candidate will be expected to establish an active research program based on competitive external funding in the field of pharmaceutics. Candidates are expected to teach undergraduate and graduate courses in the field of pharmacy in Hebrew, and supervise M.Sc. and Ph.D. students.

Review of the applications will begin immediately. Candidates are requested to send their curriculum vitae, list of publications, 3-5 selective reprints, a brief outline of research plans and three letters of recommendation to Prof. Israel Ringel, Head, School of Pharmacy, Faculty of Medicine, The Hebrew University of Jerusalem, POB 12065, Jerusalem 91120, Israel.

For more information contact Prof. Israel Ringel at +972 2 6757504, israelr@ekmd.huji.ac.il or Susie Seligmann, Administrative Head, School of Pharmacy at +972 2 6758620; +972 2 6757503(fax), susies@savion.huji.ac.il; http://pharmacy.huji.ac.il

EUFEPS engaged in EU project on Microdosing

In December 2005 a EU grant of 2 million euros was awarded to the EU Microdosing AMS Partnership Programme (EUMAPP) consisting of 10 organisations, including EUFEPS, across 5 EU countries. The project leader of the consortium is Colin Garner, Xceleron, York, UK.

The The microdose concept

Microdosing is a new safe method from which information about the human metabolism and pharmacokinetics of a drug is obtained with minimal animal testing. In microdose studies, trace amounts of candidate substances for new medicines are administered to healthy volunteers and followed in the body. A microdose is less than 1/100th of the dose required to yield an effect of the test substance. The maximum dose is limited to 100 micrograms.

Microdose studies can be completed in four to six months. This is significantly shorter than for any other comparable research methods. The start of such clinical trials is made significantly quicker, at much lower cost. No requirement for synthesis scale-up, conform to GMP, is an additional benefit.

Both the European and the US regulatory authorities have published microdosing guidelines and are open to study proposals.

Project aim

The scientific basis for microdosing relies on a reasonable predictability from the microdose to the pharmacologically active dose. So far, the number of drugs with such proven linearity is limited. As a consequence, the consortium is examining seven representative drugs, using Accelerator Mass Spectrometry (AMS) and will compare the results after microdosing with those obtained after conventional doses in man. The drugs were selected on basis of various pharmacokinetic / ADME features, such as the likelihood of exhibiting properties in humans difficult to predict from animals or in vitro models, as well as properties, difficult to predict at the therapeutic dose, which could be obtained from microdose data. The seven drugs are paracetamol, clarithromycin, propafenone, fexofenadine, phenobarbital, sumatriptan and S-19812 (a Servier drug that was dropped during development after showing inappropriate properties in humans).

Synergies of the EUFEPS engagement

Membership of EUMAPP fits well with our mission and strategic plan, not only by supporting the New Safe Medicines Faster project, now the Innovative Medicines Joint Undertaking (IMI JU), but also by contributing to EUFEPS' work on Regulatory Advancement and Harmonisation. The current guidelines on the requirements for preclinical safety assessment before microdosing differ between FDA and EMEA. Further, the collaboration allows EUFEPS to be seen and heard by the public as active partner in the endeavour to bring new safe medicines faster to the citizens of Europe.

In addition, the engagement strengthens EUFEPS' overall activity portfolio and adds to the income of the secretariat. The EUMAPP finance workshops are incorporated into, or at least placed back to back with, other EUFEPS arrangements or conferences.

Partnership responsibilities

As partner in the consortium, EUFEPS has taken responsibility for Work Package 7, engaging in the following tasks:
i) Dissemination of the results to scientific, community and public awareness. This will happen through a EUFEPS-created and -maintained web site, www.eumapp.com, and arrangement of three workshops. The first workshop was placed as one of the EUFEPS afternoon sessions at the Pharmaceutical Sciences World Congress in Amsterdam on April 23, 2007. The next one is planned as part of the EUFEPS Optimising Drug Development Conference in Basel, Switzerland, December 5-7, 2007.
ii) Proposing procedures and complementary legal aspects to the current European guidelines on microdosing.

Model for future collaboration

Since the EUMAPP partnership has brought clear synergistic effects to EUFEPS, it will form the model for future engagements of similar kinds. Thus the experience and benefits, which EUFEPS has gained, will be exploited both for new collaborations and for EUFEPS' current initiatives.

Ole J. Bjerrum
Immediate Past-President
EUFEPS

2nd BBBB Conference on Pharmaceutical Sciences

September 13 – 15 • 2007 • Tallinn-Tartu • Estonia

A full programme of highly relevant topics;

- Recent advances in pharmaceutical sciences
- Progress in pharmaceutical care, social and economical pharmacy
- Trends in pharmaceutical technology and biopharmaceutics
- Developments in physical and chemical pharmacy
- Basic and applied pharmacy: from traditional medicines to pharmacotherapy

The 2nd BBBB Conference on Pharmaceutical Sciences is organized by the Estonian Academical Society of Pharmacy and the University of Tartu, in collaboration with the European Federation for Pharmaceutical Sciences, the Hungarian Society for Pharmaceutical Science, the Finnish Pharmaceutical Society, the Turkish Pharmaceutical Technology Scientists' Association, and the Slovenian Pharmaceutical Society.

Please go to the conference home page for registration;
http://www.med.ut.ee/farmaatsia/bbbb

Announcement :
BioSim Event for Regulatory Scientists

Hands-on Workshops on
Modelling & Simulation in Drug Development

***In Vitro – In Vivo* Extrapolation of ADME**
Using Physiologically-Based Population-Pharmacokinetics,
Marriott Hotel, Sheffield, UK

Concepts Workshop
24th & 25th September 2007

Applications Workshop
27th & 28th September 2007

BioSim EU Network of Excellence biosim-network.net together with 3 of its member organisations Simcyp Limited simcyp.com, CBG-MEB cbg-meb.nl, and University of Sheffield shef.ac.uk announce two separate workshops on "Concepts" & "Applications" of Modelling & Simulation in ADME targeted for scientists from EU Regulatory Agencies. This conforms to the BioSim mission of propagating M&S knowledge using funds from the European Framework 6 Program. Participants from EU Regulatory Agencies will receive free registration to the courses (courtesy of Simcyp & University of Sheffield) and travel assistance (provided by BioSim).

Description of the Courses:

- **Concepts:** 24th-25th September
- **Applications:** 27th-28th September

Modelling and Simulation (M&S) is used increasingly to facilitate the process of drug development by informing better study design, identifying selected groups of individuals or conditions that may require special attention, and identifying theoretically conceivable extreme cases which are not amenable to clinical testing yet are informative regarding labelling issues.
The first workshop will cover issues related to *in vitro – in vivo* extrapolation (IVIVE) of metabolic clearance (CL), metabolic drug-drug interactions (DDIs), inter-individual variability (due to age, ethnicity, CYP genotypes, and diseases such as renal failure and cirrhosis, etc.).
The second course focuses on dose non-linearity, trial design, assessing oral drug absorption and volume of distribution.

For further information please contact:
Amin Rostami, University of Sheffield (a.rostami@sheffield.ac.uk), Jan Welink, Medicines Evaluation Board (j.welink@cbg-meb.nl), or Susan Lundie, Simcyp Limited (s.lundie@simcyp.com)

The Fifth International Postgraduate Research Symposium on Pharmaceutics (IPORSIP-2007)
September 13-15, 2007, Istanbul, Turkey
Contact: Istanbul University
Faculty of Pharmacy
Department of Pharmaceutical Technology, 34116 Istanbul Turkey
Email info@iporsip.org
http://www.iporsip.org
*

European Workshop on Computer-Aided Learning in the Pharmaceutical Sciences
September 24-25, 2007, Vienna, Austria
Contact: Norbert Haider, Department of Drug and Natural Product Synthesis
University of Vienna, Althanstraße 14
AT-1090 Vienna, Austria
Fax +43 1 42779556
Email norbert.haider@univie.ac.at http://merian.pch.univie.ac.at/eufeps/workshop/
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Hands-on Workshop on Modelling & Simulation in Drug Development: Concepts & Applications
September 24-25 & 27-28, 2007, Sheffield, United Kingdom
Contact: Amin Rostami, University of Sheffield, The Royal Hallamshire Hospital, Sheffield S10 2JF, United Kingdom
Email a.rostami@sheffiled.ac.ok
http://biosim.fysik.dtu.dk:8080/biosim/showmeetings.jsp
*

EUFEPS & COST B25 Conference on Bioavailability and Bioequivalence: Focus on Physiological Factors and Variability
October 1-2, 2007, Athens Greece
Contact: EUFEPS Secretariat, P.O. Box 1136
SE-111 81 Stockholm, Sweden, Fax +8 4113217
Email secretariat@eufeps.org www.eufeps.org
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XVI International Symposium on Drugs affecting Lipid Metabolism
October 4-7, 2007, New York, USA
Contact: Fondazione Giovanni Lorenzini,
Via Andrea Appiani, 7, IT-20121 Milan, Italy
Fax +39 02 29007018
Email info@lorenzinifoundation.org
www.lorenzinifoundation.org/dalm2007.html
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QA, QC, GXP for Pharmaceutical Production October 1-5, 2007, Copenhagen, Denmark
Drug Formulation and Delivery
October 22-26, 2007, Copenhagen, Denmark
Non-Clinical Safety and Toxicology
November 5-9, 2007, Copenhagen, Denmark
Contact: Iben Treebak, The Danish Faculty of Pharmaceutical Sciences, University of Copenhagen, 2, Universitetsparken, DK-2100 Copenhagen, Denmark, Fax +45 35 336001
Email master@farma.ku.dk
www.farma.ku.dk/postgrad-courses
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FIP Quality-International Conference
November 26-27, London, UK
Contact: Julie Churchill, Royal Pharmaceutical Society, 1 Lambeth High Street, London SE1 7JN UK, Fax +44 020 75722261
Email science@rpsgb.org
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Analytical Methodology in Protein Formulation Development
November 19-23, 2007, Copenhagen, Denmark
Cellular and Molecular Pharmacology and Toxicology
November 26-30, 2007, Copenhagen, Denmark
Drug Discovery
December 3-7, 2007, Copenhagen, Denmark
Contact: Iben Treebak, The Danish Faculty of Pharmaceutical Sciences, University of Copenhagen, 2, Universitetsparken, DK-2100 Copenhagen, Denmark, Fax +45 35 336001
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To announce your conference, workshop and course, send brief information to the EUFEPS Secretariat.
For full address, see front page.

EuPAT2: Scientific Progress Underpinning Process Analytical Technology – Bioprocessing in Focus

November 13-14 • 2007
Copenhagen • Denmark

A unique forum for scientists and engineers, encouraging and promoting progress in the science behind PAT and strengthening the interdisciplinary scientific discussion that bridges between the various fields underpinning PAT.

Deadline for submission of abstracts: September 20, 2007

EUFEPS Secretariat, P.O. Box 1136,
SE-111 81 Stockholm, Sweden
Fax +8 4113217
Email secretariat@eufeps.org

www.eufeps.org

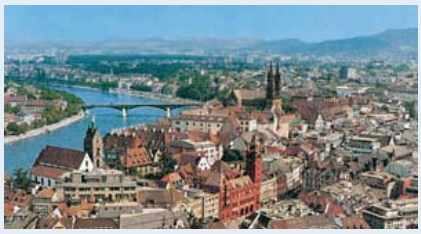
EUFEPS Conference

Optimising Drug Discovery and Development: Integrating systems approaches into pharmaceutical sciences

December 5-7, 2007 • Basel • Switzerland

Organisation

The 2007 EUFEPS Basel Conference is organisedbyEUFEPS, and it is co-sponsored by the American College of Clinical Pharmacology (ACCP), the European Biosimulation Network of Excellence (BioSim), and the European Microdose AMS Partnership Programme (EuMapp).



Conference Objectives

To present and discuss scientific progress to support and strengthen cutting-edge research on

- Systems approaches in pharmaceutical sciences – biology, structures, organs, diseases …
- Modelling for PK and PD studies
- Simulation of bioprocesses – "mirroring" real life, including integration of them and markers of e.g. disease progress modification – in drug discovery, development and due translational research.

To communicate progress of

- The IMI JU (Innovative Medicines Initiative Joint Undertaking) and
- Additional major Europe-driven initiatives and projects, such as the
  - Innovative Medicines for Europe (InnoMed),
  - Biosimulation Network of Excellence (BioSim), and the
  - European Microdose AMS (Accelerator Mass Spectroscopy) Partnership Programme (EuMapp), and
- Other initiatives, regional and global, aiming at substantially improved drug therapy for human, including
  - The US Critical Path, and
  - The PPP Top Institute Pharma

To provide an extra session on microdosing for those particularly interested in the EuMapp project and progress of it – in the afternoon of the third conference day.

Email secretariat@eufeps.org • www.eufeps.org