NEWS Letter

Eur opean Federation for Pharmaceutical Sciences

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EDITORIAL

NEW SAFE MEDICINES FASTER

A Proposal for a Key Action within the European Union's 6th Framework Programme

The budgets of European RTD Framework Programmes have steadily increased over the years. They now account for approx. 5% of public spending on research in Europe. Every 4th year, a new Framework Programme, including various key actions and generic activities, is launched. Through a bottom-up process it should in principle be possible to influence the content of future framework programmes. The issue of achieving an impact is very complex and involves many players - including you.

Ole J. Bjerrum

is under threat. Technology currently available for the development of new medicines is unable to match the pace of drug discovery and design. The ever-growing demand for safety, efficacy and quality documentation has increased the cost and time involved in getting new medicines on the market, thus creating severe restrictions on industry's ability to create wealth and launch safe, cost-effective drugs for the treatment of common and rare ailments.

Important measures

To become involved in the future EU RTD Framework programmes the following actions are needed as a minimum:

- a well defined, thoroughly described research area covering many European stakeholders
- a plan and the commitment to carry it through
- presentation of the proposal to the Commission
- further substantiation and refinement of the proposal through discussion at specially arranged workshops and conferences in an interactive mode with the Commission
- strong support from all stakeholders at the EU member state level, to convince their respective governmental bodies, including their research ministers, about the value of the proposal.

The EUFEPS Committee on Industrial Relations (CIR) has decided to bring the pharmaceutical sciences in focus for the EU's 6th Framework Programme 2003-2007, under the title *New Safe Medicines Faster* . The rationale is the following: The global competitiveness of the European pharmaceutical industry

Clear objectives

The present proposal is based on three main objectives: to develop new technologies capable of more effective selection of potential drug candidates for innovative medicines, while accommodating safety demands; to use such technologies to speed up pharmaceutical development and eliminate foreseeable bottlenecks, created by the many drug candidates now generated in the discovery phase; and furthermore, to cultivate a pan-European interdisciplinary network on science and training that bridges the gap between pharmaceutical industry and academia.

By breaking down the barriers created by the legislation of individual nations, and initiating a new set of recognised European standards, new medicines can be brought onto the market faster and thereby cheaper — thus benefiting health care throughout Europe.

The key action

A key action is an excellent way to create consortia of research groups representing all the specialist areas

involved in drug development — pharmacology, toxicology, pharmaceutics, scale-up processing, analytical chemistry and clinical trials. A new and important discipline, pharmacogenomics, will also play a major role in the future when determining the effect of specific drugs on individual patients. In addition, the key action should embrace clusters, centres of excellence, programmes for specialist training and dedicated support for small and medium-sized enterprises.

Methodologies and technologies

Promotion and implementation of new methodologies and technologies are a major issue. Work on these apects should include as many of the pharmaceutical sectors and EU member states as possible. As a result, the new pharmaceutical methods, techniques, tools and procedures that emerge will more easily obtain broad international approval and, at the same time, represent the most competitive solutions for increasing the speed, cutting the cost and improving the quality of drug development. These new front-line methodologies often derive from basic sciences, such as molecular genetics, biomedicine, bioengineering and information technology. Also, techniques related to robotics and miniaturisation in pharmacology and pharmaceutics, plus structure-activity relations in absorption, distribution, metabolism and excretion studies and toxicology, will contribute to faster, more efficient drug development, as will the auxiliary disciplines of analytical and processing chemistry.

Education and training

A highly qualified work-force is critically important. PhD and post-graduate students trained in up-to-date technologies and research areas will help to close the current gap between academia and the needs of industry. The present deficiencies are thought to be due to the small size of individual faculties, a lack of academic and industrial integration and an inadequate number of post-doctoral programmes. But, through training and mobility measures, the key action will provide a basis for solving these problems by combining top level university research with front-line technology in areas where there is little or no training in Europe today.

Concerted effort

Thus a concerted effort put forward by the key action *New Safe Medicines Faster* has clear benefits that speak loudly in favour of its inclusion in the EU's 6th Framework Programme. By crossing the divide between individual fields of research and development, industry and academia and transforming drug development into an integrated process, the European pharmaceutical industry will be better equipped to tackle the health and employment challenges of the future.

First step taken

The first version of this Proposal has been approved by the EUFEPS Executive Committee. Copies of it were submitted to DG XII of the European Commission, and to EFPIA, requesting their early comments and support. In the year to come, collaboration on this with EFPIA, as well as with others, will be expanded to develop the proposal and consolidate the arguments with data and facts. Furthermore, this scientific content of the work programme of the key action should be finalised. Dedicated workshops will be arranged to support this process.

Additional involvement welcome

Support for this Proposal is also needed from you as a member of the local pharmaceutical research communities in universities, industries, and hospitals. Only you can convince Research Councils and research administration bodies in the relevant ministries of your country about the value of this Proposal. Please bear in mind that it will be your Minister in the European Council who in the very end will decide the fate of this initiative.

The full text of the EUFEPS/CIR Proposal can be obtained from the EUFEPS Secretariat. CIR will welcome any comment on the Proposal itself or on this Editorial, through the EUFEPS Secretariat (for address, see the front page of this Newsletter).

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Ole J. Bjerrum, Professor
Novo Nordisk A/S, Denmark; Chair EUFEPS/CIR Task Force EU Framework Programme

2nd European Graduate Student Meeting

March 3-5 • 2000 • Frankfurt/Main • Germany

Scope & Aim

Since 1990 graduate students from German pharmaceutical institutes, representing all disciplines of the pharmaceutical sciences, have met annually to discuss their scientific achievements. This series of Graduate Student Meetings, initiated by Prof. E. Mutschler, has been organised by the German Pharmaceutical Society (DPhG).

In 1998, in collaboration with EUFEPS, the Meeting was opened to graduate students from other European countries as well. To support this development, professors and institutes are kindly invited to encourage their students to participate in the 2000 Meeting, where the language will be English.

Abstracts & Format

All contributions to the Meeting, will be based on abstracts submitted for posters. Electronic submission of abstracts is preferred, but a hard copy is essential. Also, a number of abstracts will then be selected for oral presentation.

Venue & Accommodation

The Second European Graduate Student Meeting will be held on March 3-5, 2000, at the Biozentrum, Johann Wolfgang Goethe-Universität, Frankfurt/Main. Rooms at special rate have been booked at the nearby Relaxa Hotel (walking distance). Rooms are available on a first come/first served, at a rate of DEM 110 (single), DEM 160 (double), and DEM 150 (triple) per night and room, including breakfast.

Registration & Information

The Registration Fee for this Meeting is DEM 200 for graduate students, (after December 31, 1999, DEM 250) and DEM 300 for others (after December 31, 1999, DEM 350). Electronic registration is preferred. For additional information, consult website: www.biozentrum.uni-frankfurt.de/DPhG/doktorandentagung.html or contact Prof. Theo Dingermann, Institute for Pharmaceutical Biology, Biozentrum, Marie-Curie-Strasse 9, D-60439 Frankfurt/Main, Germany. Tel +49 69 79829650. Fax +49 69 79829662. Email dingermann@em.uni-frankfurt.de n

EXECUTIVE SUMMARY

August 1999

BIOVAL '99 participants contributing to the development of a European consensus on Regulatory Guidelines for Validation of Bioanalytical Procedures, on June 21-22, 1999, London, UK

The Executive Committee met in London, June 19-20 in conjunction with the Conference on Regulatory Guidelines for Validation of Bioanalytical Procedures: Towards Developing a European Consensus on the FDA Proposals for Bioanalytical Validation, i. e. BIOVAL '99. Professors D. Duchêne and H. P. T. Ammon participated in part of the Executive Committee meeting in their capacity as representatives of the Working Party on Council. This will present its findings and proposals at the next meeting of Council in Slovenia in September. With respect to the upcoming Council meeting, major issues dealt with at the Executive Committee were the usual ones of the immediate arrangements as well as those related to the future organisation and functioning of EUFEPS.

Representation changed

The *French Academy of Pharmaceutical Sciences* has indicated that they will discontinue their EUFEPS membership from the beginning of 2000. The EUFEPS Executive Committee regrets this decision taken by the Academy, although the pharmaceutical sciences in France seem to be adequately represented within EUFEPS through the two other French Member Organisations, APGI and SFSTP. The Academy was a founding member of EUFEPS and, through the years, has contributed with Prof. P. Rossignol and Prof. F. Pellerin serving on the EUFEPS Executive Committee.

Prof. Claus-Michael Lehr, Saarland University, Saarbrücken has been elected as the successor to Prof. Daan Crommelin to represent the Individul Membership at Council.

Scientific Meetings

BIOVAL '99 - Regulatory Guidelines for Validation of Bioanalytical Procedures, attracted about 160 participants. A European consensus was developed, on which Prof. T. Fell will present a report at the "twinned" meeting in Washington, DC USA, on January 16, 2000.

Plans for the *6th European Congress in Budapest* on September 16-19, 2000, proceed according to schedule. Prof. S. Görög has done an excellent job with getting the scientific programme and speakers in place. In addition, three Short-Courses and BIOVAL 2000 will be held in conjunction with the Congress. Futher details are in the website at: www.pharmweb.net/conference/eufeps2000.html

The programme for the *6th EUFEPS Conference on Optimising Drug Development: Streamlining Proof of Concept* on November 30 - December 2, 1999, in Basel, Switzerland, is listed on pages 6-7.

Policy items

By invitation, EUFEPS has submitted its comments on the draft *Note of Guidance on the Investigation of Bioavailability and Bioequivalence* to EMEA. The Executive Committee wishes to express its gratitude to Prof. H. Blume (Chair) and all other members of the Working Party involved in this important task.

The *Committee on Industrial Relations (CIR)* is presently discussing a position paper on *New safe medicines faster – A proposal for a key action within the European Union's 6th Framework Programme,* which has been developed by a EUFEPS/CIR Task Force on this matter, chaired by Prof. O. Bjerrum.

Following discussions between the two organisations, there will be increasing and regular co-operation between the *European Association for Clinical Pharmacology and Therapeutics (EACPT)* and EUFEPS.

Emerging website

EUFEPS is actively progressing plans to develop a website in partnership with a specialist company, with the intent to have it operational by Spring 2000.

Nominations for election

For the election to the Executive Committee at the forthcoming Council Meeting, the five candidates are:

Nominee/Nominating body

Prof. Ole Bjerrum/
Danish Pharmaceutical Society

Prof. Bernd Clement/
German Pharmaceutical Society

Prof. Dominique Duchêne/Turkish Pharmaceutical Society (TUFTAD)

Dr Jósef Lipták/
Hungarian Pharmaceutical Society

Dr . Michel Veillard/
Re-election

Next meeting

The most recent Executive Committee meeting was held in Leiden, The Netherlands, over the week-end of August 28-29, 1999. This meeting will be followed by a meeting on Friday, September 24, 1999, prior to the Council Meeting in Portoroz, Slovenia. n

Prof. Björn Lindeke
Secretary-General and Treasurer

John W. Daly 1999 Scheele Awardee

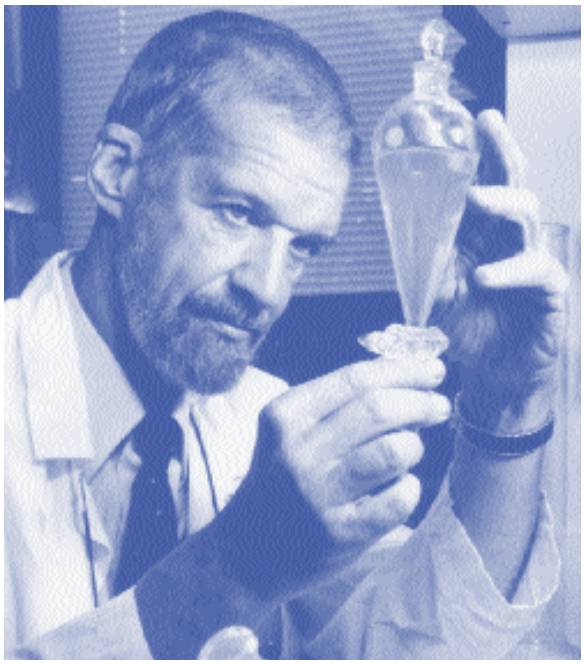
Every year, the Swedish Academy of Pharmaceutical Sciences (SAPS), commemorates the famous Swedish pharmacist Carl Wilhelm Scheele by inviting a highly distinguished scientist in the field of drug research to give the Scheele Lecture and to receive the Scheele Medal and Prize (SEK 100 000).

This year, the Academy has elected Prof. John W. Daly of NIH as the recipient of the Scheele Award. Prof. Daly gets the Award "for his outstanding contributions in the field of medicinal chemistry at large, and for special skills and insights centred around the concept of lead compounds as tools in drug discovery".

Prof. Daly was born in 1933 in Portland, Oregon. In 1958, he received his PhD in organic chemistry from Stanford University. The same year he began working for the National Institutes of Health in Bethesda, MD USA, where he has remained for 41 years.

Presently, Prof. Daly is chief of the Laboratory of Bioorganic Chemistry, National Institute of Diabetes, Digestive, and Kidney Diseases, of the NIH.

Prof. Daly's distinguished career at the NIH has spanned the fields of natural product chemistry, organic chemistry, biochemistry, neurochemistry, and molecular pharmacology. In the field of pharmacognosy he is probably best known for his work on the isolation of poison frog alkaloids, which have been found to have a variety of cardiovascular effects. Recently, Prof. Daly identified the biosyntethic source of these alkaloids as originating in the diet of the frogs. Other recent important work has involved the isolation of batrachotoxin analogues from a New Guinea bird, the pitohui, the isolation of "hunter magic" peptides from frogs, and the isolation of epibatidine, a novel analgesic compound, from a South American frog he collected in the rainforest.



This original work in natural product chemistry accounts for over 400 alkaloids with defined structures from 20 different classes. Prof. Daly's work has been complemented by very extensive work in molecular pharmacology, both on compounds he has isolated and on others. Daly identified the mechanism of action of forskolin and has been involved in studies of maitotoxin pharmacology.

Prof. Daly is a recognised expert in the biochemistry of adenyl cyclase and of adenosine receptors, and was involved in the elucidation of the "NIH shift" with Donald Jerina. In addition, he has published more than 500 scientific papers and trained over 100 postdoctoral fellows in his Laboratory.

The Scheele Symposium on October 12, 1999, in Stockholm, Sweden, is entitled "Natural Selective Toxins in Drug Discovery and Drug Development", which will highlight some of the dramatic advances in this field, focusing on Prof. Daly's work.

Prof. Daly certainly is a worthy recipient of the Scheele Award for 1999. n

Jan G Bruhn
Chairman, Swedish Society of Pharmacognosy

3rd World Meeting

Pharmaceutics • Biopharmaceutics • Pharmaceutical Technology

April 3-6 • 2000 • Berlin • Germany

Following successful meetings in Budapest (1995) and Paris (1998), APV (Arbeitsgemeinschaft für Pharmazeutische Verfahrenstechnik e.V.) and APGI (Association de Pharmacie Galénique Industrielle) will jointly organise this 3rd World Meeting, under the auspices of FIP and EUFEPS, on April 3-6, 2000, in the Berlin Inter• Continental Hotel.

Scientific areas

• Pharmaceutical dosage forms, drug delivery systems, therapeutic systems, site-specific delivery • Bioavailability, absorption enhancement, membrane absorption, targeting • Buccal and nasal delivery, pulmonary delivery, colon delivery, transdermal delivery • Peptide/protein delivery, blood substitutes, vaccines, gene delivery • Biomaterials, biocompatibility, polymers, diffusion modelling • In vitro/in vivo evaluation, cell cultures, animal models, batches for clinical trials • Raw materials, physicochemical characteristics, preformulation/formulation, stability testing • Manufacturing processes, quality control, technical innovations, packaging.

Format

• Four Plenary Lectures • More than 500 scientific papers, presented orally or as posters • Exhibition of products and services related to the pharmaceutical industry.

Social programme

• Reception by the City of Berlin in the "Rotes Rathaus" • Selection of cultural events from opera to variety theatre • Gala Evening in the Hilton Hotel at "Gendarmenmarkt".

Additional information

• APV, Kurfürstenstraße 59, D-55118 Mainz, Germany. Tel +49 6131 97690. Fax +49 6131 976969 • APGI, Rue Jean Baptiste Clément, F-92290 Châtenay Malabry, France. Tel +33 1 46835581. Fax +33 1 46835308. n

Meeting Report

Design and Evaluation of Bioequivalence Studies

As a follow-up to the highly successful Workshop – The Role of the Biopharmaceutics Classification System and In Vitro-In Vivo Correlations in the Approval of Oral Drug Products – held in Frankfurt in the Spring of 1998, a further workshop, this time focussing exclusively on bioequivalence issues, was held on March 8-10, 1999, in Frankfurt, again under the co-sponsorship of AAPS, AAPV (the International Organisation for Pharmaceutical Technology), CRS, EUFEPS and the FDA. The three day workshop featured presentations and discussion of the current issues in the design and evaluation of bioequivalence studies.

First day

Dr. Roger Williams of the FDA kicked off the workshop with an overview of the role of bioequivalence studies in assuring product quality from the standpoint of the FDA. The remainder of the first day was then devoted to the proper design of bioequivalence studies. Dr. Dale Conner (FDA) set forth the groundrules for study design and the remaining presentations addressed specific issues such as highly variable drugs, when metabolite levels should be measured, whether pharmacodynamic data can be used as a surrogate and the use of population and individual bioequivalence as alternatives to standard average bioequivalence study designs. Dr. Barbara Schug (SocraTec) presented examples of highly variable drugs and indicated that variability could be substantially reduced by going to steady-state measurements and that a replicate study design was also useful in these cases. Drs. Mei-Ling Chen and Vinod Shah (FDA) indicated that metabolites should only be measured for bioequivalence purposes when there are problems with detection of the parent compound. Several interesting examples of the application of pharmacodynamic data were shown by Professor Luc Balant (University of Geneva). The need for a dose-response study design was stressed. In some cases, where the pharmacological effect is elicited on an all-or-none basis, therapeutic bioequivalence can be achieved even when plasma levels are not similar. This idea led to a lively discussion of whether assessment of pharmacokinetic or therapeutic equivalence is the goal of the study design. Dr. Mei-Ling Chen introduced the most recent FDA thinking on the use of repetition in studies to assess individual bioequivalence. She emphasised the importance of "switchability", and hence subject-by-formulation interactions when considering whether two products are bioequivalent. About 40% of studies considered by the FDA to date show a subject-by-formulation interaction. A consideration of the variance of the test and reference formulation is therefore important to the assessment of bioequivalence. In the current criterion under consideration, the decision is based on an aggregate parameter consisting of the difference between the means and the difference between the variances, divided by the variance of the reference product. With this parameter, a low variance in the test product can enable a wider difference between the means to be accepted. To avoid this, it has been suggested either to add an additional criterion of a maximum allowable difference in the means or to scale the difference in variances. The last two presentations on the first day covered food effects on bioequivalence. Dr. Constantin Efthymiopoulos argued that the mechanistic basis for food-drug interactions should be established. Dr. Aziz Karim (GD Searle) continued with this theme, focussing on the importance of food effect studies in early drug development.

Second day

The second day of the Workshop started with evaluation of bioequivalence studies. Dr. Willy Roth (BI Pharma KG) presented his firm's experience with Telmisartan®, a combination product. Alternate methods to the standard Cmax, Tmax and AUC for characterisation of the plasma profile were then presented by Prof. Panos Macheras (Uni-Athens). The concept of early exposure (i.e. partial AUC) as an alternative to assessment of absorption rate by Cmax and Tmax was generally considered to be a positive development, and some thought was also given to the intercept parameter (y intercept of a semilogarithmic plot of c vs. t normalised to AUC) as a measure of absorption rate. Dr. Tony Hunt (UCSF) gave a thorough description of how the F2 factor can be applied to bioequivalence studies and also how trends in the bootstrapping analysis can be used to identify differences in the mechanism of release between two products. Lastly, Dr. Volker Steinijans compared the FDA's current recommendations for number of subjects and decision criteria to be used in average, population and individual bioequivalence studies and drew the conclusion that the goalposts allowed are so much wider in the case of some recommendations for individual bioequivalence studies that the natural hierarchy, average/population/individual, is lost. His recommendation was to go to a 2-step decision criterion, i.e. compare the means and variances separately.

In the afternoon, several case studies highlighting some of the issues were presented. These included choice of substance to be measured in the case of seligeline (Dr. Pabst, AAI), absorption profiles of carbamazepine and nifedipine (Prof. Süverkrüp, Uni-Bonn), influence of gender on variability (Dr. Schug, SocraTec), linear characterisation of plasma-concentration time profiles (Prof. Mau, Uni-Düsseldorf) and mathematical uncertainty in BA/BE studies (Prof. Mircioiu, Uni-Bucharest).

Third day

On the third day, the emphasis moved to regulatory aspects and how bioequivalence is regulated in various parts of the world with an emphasis on possibilities for harmonisation. After an introductory overview of trends in international harmonisation from Prof. Blume (SocraTec), Dr. Shah described the contents of the forthcoming draft Guidance on Bioequivalence from the FDA. Key points include practical guidelines for conducting studies, biopharmaceutical aspects, choice of decision criteria and use of early and total exposure concepts. Prof. Morais (Uni-Lisbon) followed with a detailed description of the European Guidance, highlighting the differences from the previous (1992) version. The drive to mutual recognition in Europe has led to certain specific problems such as the definition of the reference product and will require harmonisation of criteria and exemptions for biowaivers among the different countries. At present the EMEA feels that there is not enough experience with early exposure concepts to include them in the Guidance. Dr. Limberg (BfARM) stressed the importance of in vitro dissolution test design to assessing bioquivalence, with studies in several relevant media being highly desirable. In the last presentation of the workshop, Ms. Maria Santiago from the Bureau of Food and Drugs in the Philippines described an ambitious government project there to establish bioequivalence testing centres. Until these are fully up and running, it was suggested that appropriate dissolution studies could form the basis of a bioequivalence submission in many cases as a stop-gap solution.

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Jennifer B. Dressman, Professor
Institut für Pharmazeutische Technologie,

6th EUFEPS Conference

Optimising Drug Development: Streamlining Proof of Concept

A unique discussion forum for scientists from the pharmaceutical industry, regulatory agencies and academic institutions

November 30 • December 2 • 1999 • Convention Center • Basel • Switzerland

Scope & Aim

Following on from previous EUFEPS conferences on optimising drug development, and uniquely bringing together industrialists, academics, and regulators, this two and a half day Conference, held at the Basel Convention Center, aims to critically examine key issues and streamlining of proof of concept for gaining time and value in fast tracked and front loaded informative drug development.

Proof of concept trials (typically in Phase IIA) represent the most important decision point for full drug development in big pharma, as well as a maximum value gain for the biotechnology industry. The focus of this Conference will be on concepts rather than on specific therapeutic area variations.

Format & Language

Using a similar format to previous EUFEPS Conferences, key segments of this value chain will be broken down into eight sessions, each with lectures and discussions. Session topics will also form the basis for open discussion in evening workshops. Workshop summary reports will be integrated and presented by rapporteurs on the third morning of the Conference. For Preliminary Programme, se below.

English will be the language of the Conference. No simultaneous translation will be provided.

Programme on Tuesday, November 30:

Opening and welcome
M. Rowland, EUFEPS President, Manchester, UK

SESSION I

Role of proof of concept in drug development
Chairmen: *M. Rowland*, Manchester, UK & *G. Rapeport*, Middlesex, UK
What is proof of concept? *F. R. Buhler*, Basel, CH
Proof of concept in big pharma and in the biotechnology (research) industry
G. Rapeport, Middlesex, UK
Decision making *R. Beevers*, Basel, CH

SESSION II

How will genomics affect proof of concept
Chairmen: *F.R. Buhler*, Basel, CH & Paul Herrling, Basel, CH
Genomics: From new drug targets to new medicines *P. Herrling*, Basel, CH
Drug discovery using genomics *J. Duyk*, San Francisco, CA USA
Pharmacogenomics driven patient selection *R. Myers,* Stanford, CA USA

SESSION III

Proof of concept: ADME and safety properties
Chairmen: *D.D. Breimer*, Leiden, NL & *W. Jenkins*, Basel, CH
Chemical property optimisation for proof of bioavailability *C. Lipinski*, Groton, CT USA
Rapid *in vivo* PK screening of discovery compounds *M. Cayen*, Kenilworth, NJ USA
Role of toxicogenomics *A. Cortier,* Basel, CH

SESSION IV

Preclinical proof of concept – value for man?
Chairmen: *H. van Cauteren*, Basel, CH & *T. Guentert*, Basel, CH
Integrated and rapid toxicology screening *H. van Cauteren*, Basel, CH
Whole animal experimentation
P-H. van der Graaf, Sandwich, UK
Predictive models – key to high chances of success *T. Guentert*, Basel, CH

FIRST DAY EVENING BREAK-OUT SESSIONS

M. Rowland, Manchester, UK, *C.C. Peck*, Washington, DC USA, *F. R. Buhler*, Basel, CH

Programme on Wednesday, December 1:

SESSION V

Facilitating proof of concept in early clinical development
Chairmen: *A. Grahnen*, Uppsala, SE & *R. Williams*, Washington, DC USA
General requirements for early proof of concept in man *K. Tomaszewski*, Sandwich, UK
First administration: The beginning of the end or the end of the beginning *A. Cohen*, Leiden, NL
Metabolic profiling *U. A. Meyer*, Basel, CH

SESSION VI

Development and evaluation of biomarkers
Chairmen: *P. Rolan*, Manchester, UK & *A. Atkinson*, Bethesda, MD USA
Development and validation of surrogaters *P. Rolan*, Manchester, UK
Biomarkers, models and surrogaters and a general approach to their validation *A. Atkinson*, Bethesda, MD USA
Experience with novel biomarkers and their validation *G. Stelzer*, Brentwood, TN USA
Development of human models of psychiatric disease *J.F.W. Deakin*, Manchester, UK

SESSION VII

Designing and analysing proof of concept trials
Chairmen: *C.C. Peck*, Washington, DC USA & *A. Houston*, Bracknell, UK
Requirements and general principals of proof of concept trials *C.C.Peck*, Washington, DC USA
Virtual clinical trials – role in optimising proof of concept trials *M. Hale*, Research Triangle Park, NC USA
Standard and novel designs of proof of concept trials *A. Grieve*, Sandwich, UK

SESSION VIII

Regulatory issues on proof of concept and lean pivotal trials **Chairmen**: *L.J. Lesko*, Rockville, MD USA & *R. Bass*, London, UK
EMEA perspective *R. Bass*, London, UK
FDA perspective *TBA*
Industrial perspective *J. Posner*, Bagshot, UK

EXTRA SESSION

Pharma 2005 – will proof of concept still matter? *S. Arlington*, Pricewaterhouse-Coopers, London, UK
Introduction of speaker *K. Kaitin*, Boston, MA USA

SECOND DAY EVENING BREAK-OUT SESSIONS

M. Rowland, Manchester, UK, *C.C. Peck*, Washington, DC USA, *F.R. Buhler*, Basel, CH

Programme on Thursday, December 2:

INTEGRATION SESSION

Developing conference conclusions and recommendations Reports from Break-out Sessions and Discusssion

Continued on page 7

Continued from page 6

CLOSING OF THE CONFERENCE

Future role of EUFEPS in optimising drug development – preparing for genomics *M. Rowland,* Manchester, UK & Conference Chairs

Cosponsores

Co-sponsores of this Conference are: European Medicines Evaluation Agency (EMEA), London, UK, US Food and Drug Administration (FDA), Rockville, MD USA, European Association for Clinical Pharmacology and Therapeutics (EACPT), Warrington, UK, American Association of Pharmaceutical Scientists (AAPS), Alexandria, VA, USA, American Society for Clinical Pharmacology and Therapeutics (ASCPT), Washington, DC USA, European Center for Pharmaceutical Medicine (ECPM), Basel, CH, Leiden/ Amsterdam Center for Drug Research (LACDR), Leiden, NL, Center for Drug Development Science (CDDS), Washington, DC USA, Tufts Center for the Study of Drug Development (CSDD), Boston, MA USA.

Arrival & Departure

The Conference Programme starts on Tuesday, November 30, 1999, at 8.30 a.m., and the formal programme will close on Thursday, December 2, 1999, at 13.15 p.m.

Conference Registration

For Conference Fees and Registration, consult the Conference website: www.pharmweb.net/conferences/eufeps6.html or contact the Conference Secretariat (see below). Registration fees include all conference documentation, all coffee breaks and lunches as well as the Welcome Reception Buffet.

Confirmation and joining instructions will be sent once the full payment in EUR is received.

Hotel Reservation

A number of rooms, have been reserved at specially reduced rates.

For Hotel Reservation and rates, also see Conference website, and/or contact the Basel Hotelreservation, either by fax: +41 61 686 2184 or by post: *Basel Hotelreservation, Postfach, CH-4021 Basel,* Switzerland.

Conference Secretariat

Please adress all correspondence, enquires and changes to delegate information etc. to: 6th EUFEPS Conference, EUFEPS Secretariat, Att: Jenny Hagberg, PO Box 1136, SE-111 81 Stockholm, Sweden. Tel +46 8 7235000 Fax +46 8 4113217
Email sixconfer@eufeps.org (or) jenny.hagberg@swepharm.se n

Millennial Short Courses

April 15-16 • 2000 • San Francisco • USA

Five short courses are planned in conjunction with the Millennial World Congress of Pharmaceutical Sciences. Each short course is limited to 75 participants, and registrations will be accepted on a "first come-first served" basis. They are:

Pharmacokinetic – Pharmacodynamic Modelling – *April 15*
Course leader: *W. Jusko*, State University of New York at Buffalo, USA
Co-sponsored by: EUFEPS and American Association of Pharmaceutical Scientists (AAPS)

Imaging Techniques for Characterisation of Dosages Forms – *April 15*
Course leader: *M. Davies,* University of Nottingham, UK
Sponsored by: The Royal Pharmaceutical Society of Great Britain (RPSGB)

Drug Absorption Assessment – *April 16*
Course leader: *J. Tukker,* Utrecht University, The Netherlands
Sponsored by: EUFEPS

Controlled Drug-Release – into the 21st Century – *April 16*
Course leader: *R. Siegel*, University of Minnesota, USA
Sponsored by: Controlled Release Society (CRS)

Entrepreneurship and the Pharmaceutical Scientist – *April 16*
Course leader: *R. Benet,* Exit Strategies Consult, USA
Sponsored by: American Association of Pharmaceutical Scientists (AAPS)

The Organising Committee reserves the right to cancel any course for which adequate registrations are not received.

Additional Information & Registration
For additional information and registration, consult the Millennial World Congress website: www.mwc2000.org, or contact the Millennial World Congress Secretariat, 2215-R Market Street, Suite 291, San Francisco, CA 94114, USA. Tel +1 415 2550245. Fax +1 415 7018769. n

Current EMEA Information

The European Agency for the Evaluation of Medicinal Products

May– June1999

Also available at website:
www.eudra.org/emea.html

CPMP

* CPMP/EWP/562/98 – Points to Consider on Clinical Investigation of Medicinal Products in the Chronic Treatment of Patients with Chronic Obstructive Pulmonary Disease (COPD)
* CPMP/EWP/463/97 – Note for Guidance on Clinical Evaluation of New Vaccines
* CPMP/2255/1998 – Abacavir Sulfate
* CPMP/SWP/2623/98 rev. 1 – Workplan for the CPMP Safety Working Party 1999
* CPMP/EwP/1776/99 – Concept Paper on the Development of a Committee for Proprietary Medical Product (CPMP) Position Paper on Biostatistical/Methodological issues arising from recent CPMP discussion son Licensing applications: Missing Data
* CPMP/PhVWP/1632/99 – Workplan for the CPMP Pharmacovigilance Working Party 1999
* CPMP/BPWG/575/99 – Note for Guidance on the Clinical Investigation of Human Anti-D Immunoglobulin and Human Anti-D Immunoglobulin for intravenous use
* CPMP/BPWG/388/95 rev. 1 – Note for Guidance on the Clinical Investigation of Human Normal Immunoglobulin for intravenous administration (IVIg)
* CPMP/BPWG/198/95 rev. 1 – Note for Guidance on the Clinical Investigation of Plasma Derived Factor VIII and IX Products
* CPMP/BPWG/1561/99 – Note for Guidance on the Clinical Investigation of Recombinant Factor VIII and IX Products
* CPMP/BPWG/574/99 – Core SPC for Human Anti-D Immunoglobulin and Human Anti-D Immunoglobulin for intravenous use
* CPMP/BPWG/859/95 rev.1 – Core SPC for Human Normal Immunoglobulin for

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intravenous Administration (IVIg)

* CPMP/BPWG/1619/99 – Core SPC for Human Plasma Derived and Recombinant Coagulation factor VIII products
* CPMP/BPWG/1625/99 – Core SPC for Human Plasma Derived and Recombinant Coagulation factor IX products
* CPMP/ICH/364/96 – Note for Guidance on Choice of Control Group in Clinical Trials – ICH Topic E10
* CPMP/1003/1999 – Lamivudine
* CPMP/961/1999 - Fomivirsen

EPAR

* CPMP/590/95	Betaferon
* CPMP/589/96	Crixivan
* CPMP/589/99	Refacto
* CPMP/1304/98	Trovan IV
* CPMP/593/99	Procomvax
* CPMP/2/99	Beromun
* CPMP/585/99	Rotashield
* CPMP/1063/96	Avonex
* CPMP/761/99	Sustiva
* CPMP/287/99	Regranex
* CPMP/175/99	Zenapax
* CPMP/1275/99	Stocrin
* CPMP/415/95	Gonal-F
* CPMP/108/97	Aprovel
* CPMP/230/97	Cystagon

EMEA General Documents

* EMEA/15770/99 Public Statement on Trovan/TrovanIV/Turvel/Turvel IV – Serious, severe and unpredictable liver injuries
* EMEA/H/14994/99 – Report on with-drawn Centralised Applications 1995-1998
* EMEA Status Report – 25/5/99
* Catalogue of EMEA Public Documents (June 1999)
* EMEA/MRA/US/69/99 – EC-U.S. Mutual Recognition Agreement – Sectoral Annex for Pharmaceutical Good Manufacturing Practices (GMPs)
* EMEA/18046/99 – Public Statement on Trovan/Trovan IV and Turvel/Turvel IV
* EMEA/CPMP/1375/99 – Calendar for CPMP meetings in 2001
* EMEA/SOP003/95 rev.1 – Legal Status for the Supply to the Patient of Centrally Approved Medicinal Products
* SOP/EMEA/009 – SOP on process for PIQ/QRD review of product information
* Catalogue of EMEA Public Documents (July 1999)
* EMEA Status Report – 244/6/99 n

Lead Selection & Optimisation
October 28-29, 1999, London, UK
Contact: Vision in Business Ltd, Fax +44 207 2565768Email postmaster@visibis3.demon.co.uk
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AAPS Annual Meeting and Exposition
November 14-18, 1999, New Orleans, USA
Contact: Debbie Mierke, AAPS, 1650 King Street, Suite 200, Alexandria, VA, USA, Fax +1 703 6847349, Email mierke@aaps.org
*

Cellular Pharmacology and Toxicology
November 29-December 3, 1999
Copenhagen, Denmark
Contact: Arne Schousboe, Royal Danish School of Pharmacy, Universitetsparken 2, DK-2100 Copenhagen Ø, Denmark, Fax +45 35306001
*

6th EUFEPS Conference – Optimising Drug Development: Streamlining of Proof of Concept
November 30 – December 2, 1999
Basel, Switzerland
Contact: EUFEPS Secretariat, PO Box 1136-SE-111 81 Stockholm, Sweden, Fax +46 8 4113217 Email sixconfer@eufeps.org
*

Conference on Gene Targeted Therapeutic Strategies
December 9-10, 1999, London, UK
Contact: J A Clements, Room 403, Royal Pharmaceutical Society of Great Britain, 1 Lambeth High Street, London SE1 7JN, UK, Fax +41 171 5820397, Email jholmes@rpsgb.org.uk
*

Drug-Drug and Drug-Food Interactions
December 9-10, 1999, Arlington, VA, USA
Contact: Debbie Mierke, AAPS, 1650 King Street, Suite 200, Alexandria, VA, USA, Fax +1 703 6847349, Email mierke@aaps.org
*

Liposome Advances: Progress in Drug and Vaccine Delivery
December 13-17, 1999, London, UK
Contact: G. Gregoriadis, Centre for Drug Delivery Research, School of Pharmacy, University of London, 29-39 Brunswick Square, London WC1N 1AX, UK, Fax +44 171 7535820, Email gregoriadis@cua.ulsop.ac.uk
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LIMS Implementation: Strategies and Tactics
January 18-20, 2000, York, UK
Contact: J A Clements, Room 403, Royal Pharmaceutical Society of Great Britain, 1 Lambeth High Street, London SE1 7JN, UK, Fax +41 171 5820397, Email jholmes@rpsgb.org.uk
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Advanced Techniques in Synthetic Organic Chemistry
January 10-21, 2000, Copenhagen, Denmark
Contact: Mikael Begtrup, Royal Danish School of Pharmacy, Universitetsparken 2, DK-2100 Copenhagen Ø, Denmark, Fax +45 35306001
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Bioanalytical Methods Validation: A Revisit with a Decade of Progress
January 12-14, 2000, Arlington, VA, USA
Contact: Debbie Mierke, AAPS, 1650 King Street, Suite 200, Alexandria, VA, USA, Fax +1 703 6847349, Email mierke@aaps
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35th Annual Pharmaceutical Technologies Conference at Arden House: Technical Transfer of Pharmaceutical Products from the Lab to Commercial Production
January 23-28, 2000, Harriman, NY, USA
Contact: Debbie Mierke, AAPS, 1650 King Street, Suite 200, Alexandria, VA, USA, Fax +1 703 6847349, Email mierke@aaps
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Winter Course 2000: Computational Medicinal Chemistry, An Introduction for Medicinal Chemists
January 30 - February 2, 2000, Åre, Sweden
Contact: Annette Lindberg, Swedish Academy of Pharmaceutical Sciences, P.O. Box 1136 SE-111 81 Stockholm, Sweden, Fax +46 8 205511 Email annette.lindberg@swepharm.se
*

Methodological Perspectives in Health Services Research
January 30-February 5, 2000
Copenhagen, Denmark
Contact: Ebba Holme Hansen, Royal Danish School of Pharmacy, Universitetsparken 2, DK-2100 Copenhagen Ø, Denmark, Fax +45 35306001
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2000 FDA Science Forum, FDA and the Science of Safety: New Perspectives
February 14-15, 2000, Washington DC, USA
Contact: Debbie Mierke, AAPS, 1650 King Street, Suite 200, Alexandria, VA, USA, Fax +1 703 6847349, Email mierke@aaps
*

Validation of Pharmaceutical Analysis
February 16-18, 2000, York, UK
Contact: J A Clements, Room 403, Royal Pharmaceutical Society of Great Britain, 1 Lambeth High Street, London SE1 7JN, UK, Fax +41 171 5820397, Email jholmes@rpsgb.org.uk
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Bioanalytical Methods Validation for Macro Molecules
March 1-3, 2000, Arlington, VA, USA
Contact: Debbie Mierke, AAPS, 1650 King Street, Suite 200, Alexandria, VA, USA, Fax +1 703 6847349, Email mierke@aaps
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Arden House European Conference 2000
March 5-9, 2000, Cambridge, UK
Contact: J A Clements, Room 403, Royal Pharmaceutical Society of Great Britain, 1 Lambeth High Street, London SE1 7JN, UK, Fax +41 171 5820397, Email jholmes@rpsgb.org.uk
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Drug Design and Discovery
March 6-10, 2000, Copenhagen, Denmark
Contact: Povl Krogsgaard-Larsen, Royal Danish School of Pharmacy, Universitetsparken 2, DK-2100 Copenhagen Ø, Denmark, Fax +45 35306001
*

Advanced Structural Chemistry and Molecular Modelling
March 13-20, 2000, Copenhagen, Denmark
Contact: Flemming Steen Jørgensen, Royal Danish School of Pharmacy, Universitetsparken 2, DK-2100 Copenhagen Ø, Denmark, Fax +45 35306001
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Millennial World Congress of Pharmaceutical Sciences
April 16-20, 2000, San Francisco, CA USA
Contact: Millennial World Congress Secretariat, 2215-R Market Street, Suite 291, San Francisco, Fax +1 415 7018769, Email current.events@mindspring.com, Website www.mwc2000.org
*

EUFEPS 2000 – 6th European Congress of Pharmaceutical Sciences
September 16-19, 2000, Budapest, Hungary
Contact: EUFEPS 2000, c/o Research Institute for Medicinal Plants, H-2011 Budakalász, PO Box 11, Hungary, Fax + 36 26 343195 or 340426 Email eufeps2000@mail.matav.hu
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