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Lay-out

Camilla Boquist/Lådan & Co

Decennial Anniversary of EUFEPS

On September 21st – 22nd in Strasbourg, the European Federation for Pharmaceutical Sciences will celebrate its achievements during the last ten years and look forward to a successful future.

Here to Serve

Since its inaugural meeting in 1991, EUFEPS has served and advanced excellence in the pharmaceutical sciences and in innovative drug research. From the beginning, the 16 founding national associations have made joint European efforts for increased competitiveness. EUFEPS is the only pan-European body to represent the interests of scientists in industry, academia, government and other institutions engaged in drug research, development, regulation and policymaking throughout Europe.

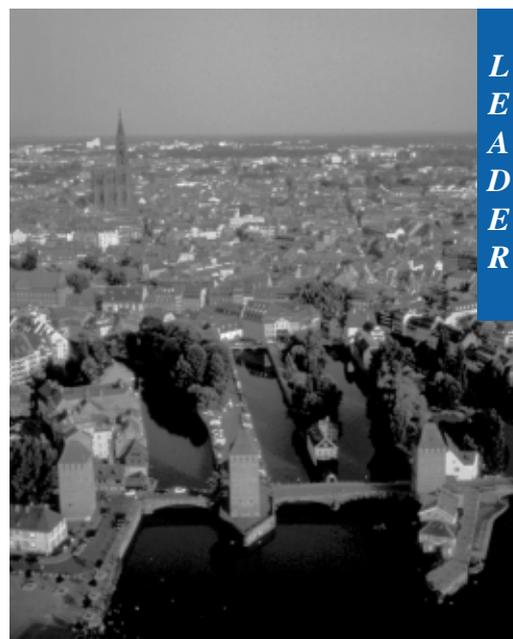
Growth

During the last ten years, EUFEPS has welcomed 9 further member societies so that today 25 member societies are linked across 23 countries. The total membership of all these member societies exceeds 20,000 individuals. In addition, there are Supporting Corporations and more than 500 individual members.

Pharmaceutical Sciences in Europe

The successful meetings, courses and publications since 1992 confirm the strength of this area:

- European Congress of Pharmaceutical Sciences. Stockholm will be the host of the sixth of these biennial gatherings in 2002
- Optimising Drug Development Conference. This year sees the eighth and ninth in this series of discussions on specialised themes.
- Optimising Biotech Medicines Conference. A new series of expert meetings will start with "Rational Development of Therapeutic Proteins" next year in Berlin.



LEADER

- New Safe Medicines Faster Initiative. This research proposal aims to strengthen European competitiveness in innovation, development and use of new and better drugs.
- European School of Excellence in Pharmaceutical Sciences. Postgraduate courses which will offer new training options. A pilot course on HT Drug Metabolism/Disposition is scheduled for 2002 in The Netherlands.
- European Journal of Pharmaceutical Sciences. Official scientific journal of EUFEPS, published monthly by Elsevier Science, Amsterdam

Leadership, Help and Advice

An Executive Committee of ten members governs EUFEPS. These committee members are elected by the EUFEPS Council, which comprises representatives of all Member Societies and the Individual Membership.

Further committees help EUFEPS activities e.g. scientific programmes and organisation for conferences, as well as the Committees on Academic Relations, Awards and Prizes, Industrial Relations, Membership Management, Training and Education.

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New Addition to the Editorial Team

As the latest recruit to the EUFEPS Newsletter, I would like to introduce myself to the readership

After postgraduate research on the absorption of cephalosporin antibiotics at Manchester University (although not in Malcolm Rowland's department) I joined Glaxo Group Research, Greenford, UK, in 1980. Since then my career in the pharmaceutical industry has been close to the interface between discovery and early development, with a special emphasis on pharmacokinetics. Between 1993 and 2000, my family and I lived in Basel, Switzerland, while I worked for Hoffmann-La Roche.

Currently, I am an Executive Director in the Drug Evaluation group for the RW Johnson Pharmaceutical Research Institute, based near High Wycombe in the UK.

With your help, I look forward to making the EUFEPS Newsletter an even more important source of relevant information in the future.



Peter Williams
PWilli12@prigb.jnj.com

Continued from page 1

The EUFEPS Newsletter is published quarterly and circulated to the EUFEPS membership and to members of all Member Societies. The EUFEPS website provides easy access to key information.

The EUFEPS Secretariat is located in the premises of the Swedish Pharmaceutical Society/Academy of Pharmaceutical Sciences in Stockholm, Sweden. Hence the contact details are:

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Individual Members on the EUFEPS Council

EUFEPS has more Individual Members than ever before. The number of Council members representing their views has been increased from 4 to 5. There was an election for Individual Members on the Council during summer 2001. Professor Claus-Michael Lehr was elected for a second 2-year term, and Professor John Caldwell was newly elected to the EUFEPS Council. Here are biographical sketches of these two distinguished scientists:



Professor Claus-Michael Lehr

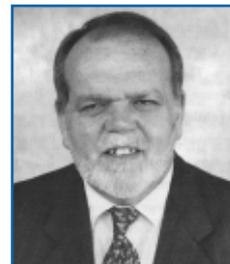
Professor Claus-Michael Lehr studied pharmacy at the University of Mainz and the University of Hamburg, and received his German "Approbation" in 1987. In 1991, he received his PhD from the Leiden University, The Netherlands. After a postdoctoral fellowship (1991-1992) at the University of Southern California, Los Angeles, he worked as a research scientist at the Leiden Amsterdam Center of Drug Research. In 1993, he was appointed Associate Professor at Philipps-University Marburg, Germany. In 1995, he moved to Saarbrücken, Germany, to become Full Professor and Head of the Department of Biopharmaceutics and Pharmaceutical Technology at Saarland University.

In 1998, he co-founded ACROSS BARRIERS GmbH, a company dedicated to new technologies for drug absorption and delivery.

Professor Lehr is a member of the Controlled Release Society (CRS), the American Association of Pharmaceutical Scientists (AAPS), Arbeitsgemeinschaft für Pharmazeutische Verfahrenstechnik (APV), and the German Pharmaceutical Society (DPhG). He is European Editor of the European Journal of Pharmaceutics and Biopharmaceutics, and he serves as a member of the editorial boards of the Journal of Drug Targeting, the European Journal of Pharmaceutical Sciences and PharmSci.

In June 1998, he was elected to the board of governors of APV, a scientific society dedicated to the applied Pharmaceutical Sciences and Technology in Germany and in Europe, where he is responsible for academic affairs and international scientific contacts.

John Caldwell is Professor of Biochemical Toxicology, Head of Undergraduate Medicine and Head of the Division of Biomedical Sciences, Imperial College School of Medicine



Professor John Caldwell

in London. He graduated in Pharmacy from Chelsea College in London in 1969 and obtained his PhD at St. Mary's Hospital Medical School, where he was a student of R T Williams, the father of modern drug metabolism. He held various academic posts at St. Mary's and served as its last Dean (1995-1997) prior to the formation of the Imperial College School of Medicine. He is the only non-medical scientist to have been Dean of a UK medical school and was a Subject reviewer in the 1998-2000 Assessment of UK Schools of Pharmacy.

He is currently a member of the UK Committee on the Safety of Medicines and other honours include Presidency of the International Society for the Study of Xenobiotics (1994-95), the Sterling-Winthrop Distinguished Professorship of the University of Michigan (1995) and Honorary Membership of the Royal College of Physicians (1998). He has been a consultant to the International Agency for Research on Cancer and a member of national and international advisory committees. He is the European Editor and founder of the journal Chirality and a past or present member of 17 other Editorial Boards. He holds memberships of over 20 national and international societies and is a past or present office holder in 8.

Since 1971, Professor Caldwell has published over 450 publications on drug metabolism, including some 250 full papers and invited contributions and ten edited books. Some of his special areas of interest include structure-metabolism relationships, stereochemical influences on drug metabolism, metabolic mechanisms of toxicity and the integration of drug metabolism into the drug development process.

EXECUTIVE SUMMARY

September 2001

The Executive Committee met on June 17-18, 2001 in Copenhagen, Denmark, in conjunction with the successful World Conference on Drug Absorption and Drug Delivery, and again on August 25-26, 2001, in Nice, France. At the latter of these two events, the Executive Committee also exchanged views with representatives of APGI and APV concerning the possibility of launching and collaborating on a "fair" for pharmaceutical sciences in the year 2005.

Major items

Major issues dealt with at these two meetings were again the ones related to the upcoming Council Meeting in Strasbourg, but this year with extra emphasis given by the EUFEPS Decennial Anniversary. For this Council Meeting, there are proposed amendments to the EUFEPS Statutes regarding enlarged Member Societies representation at Council, with the congregation now representing a total of 47 votes as compared to the earlier 25. Other issues of concern are the set-up needed to organise and conduct an increasing number of meetings, including the ideas on the future format of the European Congress of Pharmaceutical Sciences, i. e. the formation of a Pharmaceutical Sciences Fair.

Nomination for elections

For the election to the Executive Committee at the forthcoming Council Meeting, the candidates and nominating bodies are:

Prof. Ole J. Bjerrum

(The Pharmaceutical Society of Denmark)

Prof. Fritz Bühler (Swiss Society of Pharmaceutical Sciences)

Prof. Bernd Clement

(German Pharmaceutical Society)

Prof. Dominique Duchêne (Association de Pharmaceutique Galenique Industrielle)

The EUFEPS Journal

EUFEPS is happy to welcome the new Editor-in-Chief of the European Journal of Pharmaceutical Sciences, Prof. Arto Urtti, who started his job on April 1, 2001. "Some learning was needed initially", he says, but with the assistance from Prof. Per Artursson, the former Editor, a smooth transition of the editorial office across the Baltic, from Uppsala, Sweden, to Kuopio, Finland, took place. Manuscripts are flowing in continuously. Prof. Urtti wishes to achieve a fruitful

collaboration with EUFEPS on the Journal. Further successful development of the Journal should help EUFEPS in promoting pharmaceutical sciences in Europe, and EUFEPS success would be beneficial for the Journal.

Finance

The Authorised Auditor has now approved the accounts and the administration for the year 2000. The expenditures for 2000 were considerably above the revenues. The net loss for the year 2000 amounts to EUR 43899. The auditor suggested that the money deposited in the Swedish Pharmaceutical Society Fund should be depreciated to the market value, especially as part of it was to be consumed in the beginning of 2002. Contributions from congresses were below budget. The 7th EUFEPS Conference on Optimising Drug Development in Basle gave a surplus, while the CMR-EUFEPS workshop on pharmaceutical sciences training needs resulted in a loss. However, the latter was a calculated deviation from the budget, agreed upon by the Executive Committee. On the expense side, pronounced negative deviations against the budget are seen on expenses for personnel and for the website. The Executive Committee decided upon expanded actions on these items after the budget was agreed upon. Notable savings in the expenses are seen on the costs for postage and shipping.

EU items

As previously reported, the "EU Integrated Project" proposal put together, at the beginning of this year, did not receive the necessary EU Commission support. However, the experience gained during this procedure should be very valuable for future collaboration. This is reported by Prof. Ole J. Bjerrum in an update article on the New Safe Medicines Faster initiative, in this issue of the Newsletter (see pages 4 – 5). The overall message in the update article is that the New Safe Medicines Faster Project made substantial progress, duly acknowledged by the European Commissioner for Research, Mr. Philippe Busquin.

Congresses and Conferences

The World Conference on Drug Absorption and Drug Delivery in Copenhagen in June 2001 was a success, see report in this issue of the EUFEPS Newsletter (pages 6 – 7). As this Executive Summary is authored, we know

that many will attend the Decennial Anniversary Conference (8th EUFEPS Conference on Optimising Drug Development), on Rational Design of Drug Materials and Drug Delivery Systems, in the European Parliament in Strasbourg in September. Preparations for the next conference in this series, on the Use of Biomarkers: From Drug Discovery through Clinical Practice, in Basel, in December 2001, are well under way.

Next major meetings include the first EUFEPS Conference on Optimising Biotech Medicines; Rational Development of Therapeutic Proteins, in Berlin, in May 2002, and the EUFEPS 2002 Congress in Stockholm, in October 2002. In addition, planning for the 2003 meetings programme will have to be accelerated.

Consult the EUFEPS Website for update information on the EUFEPS conferences, etc. There is an ambition that the information on the Website be updated quarterly. It may not always be possible, though, due to the heavy work-load of the EUFEPS Secretariat and financial restrictions. Should you observe any mistake in the information posted, please report it to the Secretariat.

Training and Education

A EUFEPS Committee on Training and Education (CTE) has been established. It will meet next, on September 21, 2001, in conjunction with the Decennial Anniversary and Council in Strasbourg. At this meeting, post-graduate level training courses, initiated by EUFEPS, will be discussed. There are plans to run 2-3 training courses next year, if possible. Check the EUFEPS Website for further information on what and when.

Next meetings

The next Executive Committee meetings are planned to take place in Strasbourg, on Saturday prior to and on Sunday after the Council Meeting, on September 22, 2001. Also, the EUFEPS Committee on Industrial Relations (CIR) plans to meet in Strasbourg, on Monday, September 24, 2001.

Prof. Björn Lindeke
Secretary-General & Treasurer

NEW SAFE MEDICINES FASTER

Recent Developments: March to September 2001

The aim of the New Safe Medicines Faster initiative, launched by EUFEPS in 2000, was to provide a dedicated focus of the pharmaceutical sciences for the forthcoming Research and technological Development Framework Programme of the European Community for 2002-2006 (FP6). In this article, the Project Leader Prof. Ole J. Bjerrum continues his reporting on the progress.

In the EUFEPS Newsletter from March 2001, the promotion plan for the New Safe Medicines Faster initiative was described. We are proud to present the recent fruitful progress.

After the publication of the Framework text in February 2001, we continued the bombardment of the Commission with key messages derived from the workshop held in Brussels, March 2000.

• More Integration

The drug development process represents, par excellence, an example of an integrated research project and to ensure fast implementation the research should be conducted together, or in consultation, with regulatory authorities.

• More Research

This is related to new methodologies and technologies for increasing the overall capacity of the exploratory and human (clinical) drug and vaccine development process, and to making the associated techniques more efficient by increasing their predictability and validity for human use.

• Formation of a European Clinical Trial Platform

Such a platform should be open for research which could facilitate and increase the efficacy of clinical trials through faster implementation of new scientific concepts e.g. micro-dosing for first-in-human, new biomarkers, in silico trials, pharmacogenetics etc.

The Routes of Promotion

These concern:

- Letter from EUFEPS to Commissioner Philippe Busquin. (His answer is given below).
- Written EUFEPS reply to direct request from officials in the EU Research Directorate.
- Assisted EFPIA, which is an official hearing partner for the Commission, in its opinion on the programme.
- Interview of project leader by officers of the Commission.
- Official support to the New Safe Medicines Faster Initiative from the Danish Research Ministry vis-à-vis the Commission. The same holds true for Ireland and Finland.
- Input from our ambassadors to various national research organisations.

Furthermore, Ole J Bjerrum was invited to talk on behalf of the Commission at the Xth European Biotechnology Congress in Madrid in July¹.

The EUFEPS organised application: "Faster development of new, safe drugs in Europe using functional genomics in drug disposition, metabolism and toxicity" was not approved under the 5th Framework Programme (Functional Genomics relating to Human Health).

However, as predicted the Commission has through the application recognised that potential applicants were present in the European pharmaceutical research environment.

Clip from the Programme Text of FP6

Overall, our promotion has been very successful as the clip from the work programme text, per May 2001, under Theme 1 proves. The full text and other working papers are available on the following website: [www.http://cordis.lu/rtd2002/fp-debate/cec.htm#specific language](http://cordis.lu/rtd2002/fp-debate/cec.htm#specific language)

The text on integration runs as follows: "Integrated multidisciplinary research,

¹On "How to improve the development of new treatments for unmet medical needs in Europe".

which enables a strong interaction between technology and biology, is vital in this theme for translating genome data into practical applications. In addition, an essential element will be to involve key stakeholders, in particular, industry, healthcare providers and practitioners, policy makers, regulatory authorities and patient associates in implementing the theme".

Here we cannot ask for more.

Regarding research:

“Technological platforms for the development of new diagnostics, prevention and therapeutic tools: The objectives are to foster academic and industrial collaboration through technological platforms where multidisciplinary approaches using cutting edge technologies [***removal suggested by EUFEPS: arising from genomic research***] (such as pharmacogenomics) may contribute to health care progress and cost reduction through more precise diagnosis, individualised treatment and more efficient development pathways for new drugs and therapies [***insertion suggested by EUFEPS: including techniques to increase the predictability for human use***] and other novel products of the new technologies. Research will focus on: rational and accelerated development of new, safer, more effective drugs; development of new diagnostics; development of new (in vitro) tests to replace animal experimentation; development and testing of new preventive and therapeutic tools, such as somatic gene and cell therapies (including stem cell therapies) and immunotherapies".

Even though nearly all the right words are included the exploration of the research possibilities is still hampered by the linkage to the heading "Genomics and Biotechnology for Health". Here we can allude to the fact that the word biotechnology is more spacious from a pharmaceutical point of view than genomics. Even in the latter case – if not dealing specifically with biopharmaceuticals – you may argue that the body's handling of drugs is regulated by proteins, from absorption through metabolism (toxicity) to disposition.

Regarding clinical trials:

“Establishing a European Clinical Trials Platform to unite and support Europe’s clinical trial activities specifically targeted at interventions for use in developing countries”.

Unfortunately, this text is only linked to HIV, malaria and tuberculosis which we would like expanded to more general topics (see above).

In addition you may find in the programme text, on very many occasions, ideas and phrases deriving from the New Safe Medicines Faster initiative. Even though not all our wishes got through, we are well on the way. Now we are eagerly expecting the full text of the working programme to see if more research within the umbrella of the pharmaceutical sciences has been included. Expansion of the topics to be covered under the “Clinical trials platform” is especially worth pursuing.

Remaining activities

So far so good. We are included in the programme – but improvements are possible since the programme is still under discussion.

Do you have suggestions for expansion

and/or corrections of the published text, which fulfil the objectives of New Safe Medicines Faster? You are very welcome to notify either your National authorities or the EUFEPS secretariat.

Anyway, a continuous flux of positive expressions of support will be needed from you to reach all levels of stakeholders involved in the finalising of the 6th Framework Programme. These include European research and science organisations, such as national research councils, regulatory agencies, national governmental bodies relating to EU matters and issues, Members of the European Parliament and patient organisations. Therefore we encourage our ambassadors to keep up the pressure on the national EU stakeholders for including the “New Safe Medicines Faster” concept in the programme. On EUFEPS Website (www.eufeps.org) you may find material to be used in your promotion campaign.

Finally.....

A last effort – and we are there.

*Prof. Ole J. Bjerrum
EUFEPS Vice President*

EUFEPS 2002 ‘New Safe Medicines Faster’ October 20-23 • Stockholm • Sweden

Preview of the “Afternoon Special Sessions”

The congress will have four streams and the special sessions. The EUFEPS Newsletter will publish a series of 5 previews in issues leading up to October 2002. First, Prof. Ole Bjerrum describes the “afternoon special sessions”.

In addition to the scientific programme, a set of activities is planned to serve other needs of the modern scientist, who wants an “all-in-one conference”.

The “Afternoon Special sessions” will encompass topics like:

- Research programmes for the pharmaceutical sciences
- Innovation and NCE development
- Training and education
- Small and medium size company issues
- Regulatory aspects

It is intended that the sessions will take place in conjunction with exhibition booths, manned by representatives from National and European organizations.

Complementary arrangements will be made for:

- Job Bourse for both applicants and recruiters
- Networking centre for establishing European research teams and consortia
- Company presentations to obtain financing, etc.

EUFEPS Training Courses

EUFEPS is planning several post-graduate level training courses, 2-3 of which to be held in 2002. For more information, see forthcoming issues of this Newsletter, or consult the relevant section of the EUFEPS Website (to be updated, shortly):

www.eufeps.org

Support for NSMF Initiative

Philippe Busquin, the European Commissioner for Research, supported the initiative in a recent letter to Dominique Duchêne, president of EUFEPS, with the following words:

“I agree with you that support of innovative research for the development of new drugs and treatments is of utmost importance to ensure the future competitiveness of pharmaceutical companies, both large and small, and small and medium sized enterprises. It is indeed important that Europe keeps its strong position in research and development in scientific disciplines that form the basis of the pharmaceutical industry’s successful development and its ability to deliver products for the well being of our society.

I would like to acknowledge again the valuable contribution of the initiative “New Safe Medicines Faster”. The report of the workshop is an example of very fruitful co-operative work between different stakeholders and delivers clear and important messages regarding the current situation and future priorities in the sector.”

“More generally, the concept of the new Framework Programme, with its goal of realising the European Research Area, is fully in line with the needs referred to in this initiative; in particular the need for achieving critical mass, involving appropriate stakeholders, integrating various European research capacities and bringing together different disciplines.

I have no doubt that the pharmaceutical sector will wish to take advantage of the new Programme, and I am grateful to you for your interest in the future of European Research.”



Drug Delivery Discussed in Denmark

Between June 18th and 20th 2001, EUFEPS organised a World Conference on Drug Absorption and Drug Delivery, subtitled 'Benefiting from the New Biology and Informatics'. Here is a summary of the key themes on those three days.

Participation

The conference attracted over 420 delegates from around the world to Copenhagen, Denmark. These scientists from academia, the pharmaceutical industry and regulatory agencies heard more than 30 oral communications strongly supported by 134 posters. Professor Hans Lennernaes who chaired the Scientific Programme Committee is to be congratulated along with his Committee in putting together an interesting and challenging programme.

First day focus on drug transporters

The keynote speaker was Professor Yuichi Sugiyama who is a world-renowned authority on drug absorption and metabolism, pharmacokinetics and the molecular basis of transport of drugs. He brought to our attention the importance of particular transporters

including p-glycoprotein (PGP) and the MRP2 transporters as well as enzymes such as the cytochrome P450, CYP3A4.

Subsequent speakers were confident that we can predict diffusion into cells with 'the rule-of-five'. However, we understand much less of the structural requirements for affinity to the more important drug transporters. There is hope that higher-throughput screening will generate bigger databases and so contribute to *in silico* predictions of bioavailability and drug-drug interactions.

In the afternoon, several speakers presented examples of the interplay between drug transport and metabolism in the gastro-intestinal tract. Professor Leslie Benet surveyed the power and pitfalls of *in vitro* studies of intestinal transport. Other speakers spoke about *in silico* simulation of drug-drug interactions and about the limitations in the study of genetically modified mice, which lack specific transporters. Professor Lennernaes rounded off the first day with some clinical studies of intestinal transport and metabolism. His group is showing how several factors (age, food, diseases, etc.) affect the handling of xenobiotics and nutrients in the gut.

Discussion of dissolution, June 19th

Dr Gordon Amidon is one of the world's authorities on gastrointestinal dissolution and drug absorption and he gave an authoritative lecture on the role of surfactants and solubilisation in modifying the absorption of drugs from the gut. The Biopharmaceutics Classification System (BCS) characterises drugs according to their solubility and their permeability. Dr Amidon is at the forefront of promoting the use of *in vitro* systems to prove the bioequivalence of formulations and has been supporting many of the recent moves by the FDA to cut down the numbers of bioequivalence studies being carried out in human volunteers. When the test conditions are optimized, *in vitro* dissolution correlates well with *in vivo* performance especially for BCS Class 1 drugs (high solubility, high permeability). Such an *in vitro* – *in vivo* correlation (IVIVC) is a valuable tool in the development of new formulations. There was further emphasis in this session that low aqueous solubility alone may not be an insuperable barrier to development of a new medicine.

On the afternoon of the second day, the speakers provided several clinical examples

Professors Dominique Duchêne, Hans Lennernaes, Gordon Amidon and Yuichi Sugiyama opening the First World Conference on Drug Absorption and Drug Delivery (WCDADD), in Copenhagen, Denmark.



Almost no empty seats in the room where delegates from around the world were hearing important oral communications...

in which knowledge of absorption sites and of pharmacokinetic-pharmacodynamic relationships facilitated the development of new pharmaceutical products. Professor Wilson from the University of Strathclyde described how posture may affect the folding of the stomach and hence drug absorption. Dr Wilding of Pharmaceutical Profiles described a capsule which can release its contents at any point along the gastro-intestinal tract. The pioneering work of Alza on modifying the delivery of drugs from novel formulations was the topic of Dr Suneel Gupta's talk. He contrasted the modern position that modified release can give therapeutic benefit against the "old fashioned" concept of giving patient convenience only. The last two talks of the day illustrated how variations in drug-metabolizing enzymes contribute to variations in drug exposure and drug effects.

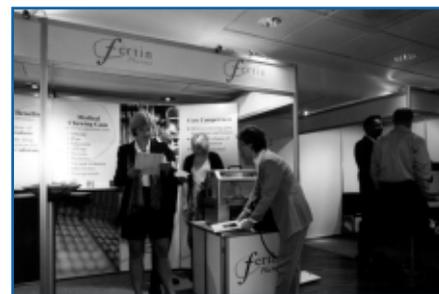
Regulatory Science Issues

To start the third day, Dr. Larry Lesko of the FDA reiterated Dr Gupta's advice to study the pharmacodynamic consequences of altering pharmacokinetic profiles and anticipate how these may be useful in optimising the bioavailability of controlled release products. He emphasised that the FDA is looking at a safety margin between effective dose and toxic dose as a critical parameter and made the point that the FDA does not do clinical trials but merely causes them. A copy of his presentation can be obtained from him at leskol@cdcr.fda.gov.

The conference then turned to regulatory aspects of proof of bioavailability and bioequivalence. Both Dr Henning Blume and Dr Muranushi explained that ICH harmonisation between Japan, Europe and the USA is not complete and this is a challenge for the development of the drug industry.

Dr Jack Cooke, Senior Research Associate at Pfizer described how by use of modern FDA guidelines he was able to save his company over a million dollars in bioequivalence testing in the development of a drug well before the NDA had been filed. He speculated that perhaps 50 or more million dollars may be saved if all companies adopted this approach. If this approach could be extended to other classes of drug and not just the soluble permeable drugs in BCS Class 1 then even greater savings could be anticipated.

Dr Ayaz Hussein from FDA talked about how the BCS system was developed, described how the FDA is currently looking to extend this, but emphasised how cautious it is



... which were strongly supported by excellent poster presentations and exhibitor information.

being until it has further experience with the Class 1 drugs. He further pointed out that the new EMEA guidelines on bioequivalence testing are essentially the same as those from the FDA.

The final afternoon began with a discussion of positron emission tomography, PET, for visualising drugs and their deposition after administration. Dr Mats Bergstrom is using this powerful technique at Uppsala University, to look at the delivery of drugs through the blood-brain barrier.

In summing up the conference Dr Amidon wondered what we had learnt since the last conference. What stood out to him is that the GI tract is no longer a "black box". A certain amount of predictive progress is being made, proteins involved in drug transport have been identified, *in vivo* dissolution has become a

credible science as has imaging and PK/PD optimisation is regaining respectability. He sees the future as holding more of this optimisation and looks forward to the time when "molecular mechanisms" allied to genetics, genomics and proteomics will produce great strides forward in drug discovery. He feels that the subject in the future might best be discussed under the term of molecular biopharmaceutics. Dr Amidon finished by summoning the audience and any others to the next meeting on this theme, which will be held in Hawaii in 2003. For those with interest in this complex and challenging subject, as well as adequate budgets, this will be a conference not to be missed.

Dr. Graham Hughes, Technomark Ltd.

Honour for Professor Malcolm Rowland



The Academy of Medical Sciences has elected Prof. Malcolm Rowland as a Fellow "in honour of his contributions to medical sciences". The Academy is regarded as "an elite band drawn from across the specialities" in the UK.

Malcolm Rowland is Professor of Pharmacy, University of Manchester; is member of the Board of Directors of

Medeval, ManPharm, and Manchester Technology Fund Ltd; and is past-president, European Federation for Pharmaceutical Sciences (EUFEPS; President 1996-2000).



Intermediate Level Workshop on PK/PD Data Analysis: A Hands-on Course Using WinNonlin
October 15-18, 2001, Chateau de Maffliers, Paris, France
Contact: Swedish Academy of Pharmaceutical Sciences, P.O.Box 1136, SE-111 81 Stockholm Sweden, Fax +46 8 20 55 11
Email jenny.hagberg@lakemedelsakademin.se
Website www.swepharm.se

New Developments of the Procedure of Certification of Suitability of the European Pharmacopoeia
November 8-9, 2001, Vouliagmeni, Greece
Contact: Caroline Larsen Le Tarnec, Public Relations, European Directorate for the Quality of Medicines (eDQM), Council of Europe B.P. 907, FR-67029 Strasbourg, France
Fax +33 3 88412771, Website www.pheur.org

Certification of suitability of Monographs of the European Pharmacopoeia. New Developments of the Procedure How to apply for a CEP
November 8-9, 2001, Athens, Greece
Contact: Caroline Larsen Le Tarnec, Public Relations, European Directorate for the Quality of Medicines (eDQM), Council of Europe B.P. 907, FR-67029 Strasbourg, France
Fax +33 3 88412771, Website www.pheur.org

Optimising Drug Development: Use of Biomarkers: From Drug Discovery through Clinical Practice
December 10-12, 2001, Basel, Switzerland
Contact: EUFEPS Secretariat, PO Box 1136 SE-111 81 Stockholm, Sweden
Fax +46 8 4113217
Email conferences@eufeps.org
Website www.eufeps.org

DIA EuroMeeting 2002: The Patient is Waiting
March 5-8, 2002, Basel, Switzerland
Contact: DIA, Postfach, CH-4012 Basel Switzerland, Fax +44 61 3869390
Email diaeuropa@diaeuropa.org

8th International Conference on Perspectives in Percutaneous Penetration
April 2-6, 2002, Juan les Pins, Antibes, France
Contact: PPP Conference, Redwood Building King Edward VII Avenue, Cardiff, UK
Fax +44 29 20874952, Email ppp@an-ex.co.uk

6th Eilat Conference on New Antiepileptic Drugs
April 7-11, 2002, Taormina, Sicily, Italy
Contact: Target Tours Ltd, Eilat VI P.O. Box 29041, Tel Aviv 61290, Israel
Fax +972 3 5175155
Email eilatvi@targetconf.com
Website www.eilatvi.co.il

Advanced Methods in PK and PD
April 7-12, 2002, Sils Maria, Switzerland
Contact: Mrs. Susan Huzar, School of Pharmacy, University of Manchester, Manchester M13 9PL, UK, Fax +44 161 2757827
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Scientific and Regulatory Aspects of Dissolution and Bioequivalence
April 12-14, 2002, Athens, Greece
Contact: Prof. Panos Macheras, Dept. of Pharmacy, Lab. of Biopharmaceutics & Pharmacokinetics, University of Athens GR-15771 Athens, Greece, Fax +30 1 7274027
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Optimising Biotech Medicines: Rational Development of Therapeutic Proteins
May 13-15, 2002, Berlin, Germany
Contact: EUFEPS Secretariat P.O. Box 1136, SE-111 81 Stockholm, Sweden
Fax +46 8 4113217
Email conferences@eufeps.org
Website www.eufeps.org

EUFEPS 2002: New Safe Medicines Faster
October 20-23, 2002, Stockholm, Sweden
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