



## **Drug Delivery Technologies**

### **Assessing the latest developments in transdermal, inhalation, oral and implanted delivery systems**

**25<sup>th</sup> January 2006, British Medical Association, London**

In today's ever expanding and lucrative drug market it is critical for pharmaceutical companies to find ways of extending the shelf life of their products. Following changes in EU legislation, there must now be a transformation in the chemical entity of the drug to extend its patent. This can be achieved by changing the method of delivery, subsequently resulting in a big push within pharmaceutical and biotechnology companies to explore new delivery techniques and systems. With both academia and industry working in this highly competitive market it is essential that collaborations are formed to move forward.

This event will provide a unique forum in which to access the region's academic brilliance, and gain specific knowledge of the cutting-edge research and developments in the drug delivery marketplace. More specifically this seminar will consider: ♦ the advantages and challenges of different mechanisms of delivery including oral, inhalation, transdermal and implanted ♦ evaluate the emerging trends in formulation design and ♦ assess what opportunities there are for collaborative research and partnerships between the commercial and academic sectors.

**18.00- 18.30 Registration with tea and coffee**

**18.30- 18.45 Introduction to aims and objectives of LTN**

**Tim Fell, Technology Consultant, LONDON TECHNOLOGY NETWORK**

**18.45- 20.00 Speaker presentations and Q&A**

**20.00- 21.00 Wine reception and buffet – networking opportunity and poster sessions from across London & the South East's universities showcasing the latest drug delivery research**

#### **1. Introduction by the chair to the drug delivery market and the impact of formulation development**

- ♦ Assessing the major trends that are emerging in regards to drug formulations and delivery
- ♦ Highlighting the issues of improving drug retention, localisation and oral bioavailability
- ♦ Emphasising the importance of industry and academia working alongside one another

**Chair: Professor Graham Buckton, Professor of Pharmaceutics and Head of Department of Pharmaceutics, School of Pharmacy, University of London**

#### **2. Controlling and improving the efficacy of inhalation drug delivery systems**

- ♦ Increasing our understanding of the diseases we seek to treat: What do we need to control?
- ♦ Optimising the delivery characteristics: How do we achieve control?
- ♦ Improving product understanding and controlling manufacture: robust product delivery
- ♦ Highlighting the importance of collaborations in achieving GSKs inhalation product portfolio development goals

**Dr Sandy Munro, Worldwide Head Inhalation Science and Technology, GlaxoSmithKline R&D**

#### **3. Evaluating the latest advancements in transdermal drug delivery**

- ♦ Exploiting transdermal techniques to combat the problems of restrictive barriers
- ♦ Creating new chemical entities and subsequently achieving extended patent lives
- ♦ Evaluating the use of patches and microspikes to counter the challenge of excretion from the stomach and liver
- ♦ Addressing the importance of industry/academic collaborations for future initiatives

**Dr Chandan Alam, Senior Scientist and Business Development Director, William Harvey Research Institute, Queen Mary, University of London**

#### **4. Highlighting the most up-to-date progression within the implanted device marketplace**

- ♦ Considering the challenges surrounding controlled delivery, polymer materials and coatings
- ♦ Evaluating what biotechs can do to enable big pharma better
- ♦ Assessing the advantages of using an implanted system for drug delivery
- ♦ Considering a real-life case study highlighting the benefit of industry/academic interaction

**Dr Andrew Lewis, Research and Technology Director, Biocompatibles**

#### **5. Question and answer session with the audience and speaker panel**

#### **6. Networking wine and buffet reception**

**All events are by INVITATION ONLY**



## **SPEAKER PROFILES**

### **ANDREW LEWIS - BIOCOMPATIBLES**

Andrew has been with Biocompatibles since 1996. Following roles in the Cardiovascular Division as projects manager and as Head of Chemistry in the Biomaterials Development Group, Andy is now director of research projects at the Farnham Product Development Centre and coordinates the external research programmes with a number of academic and industrial collaborators. He is author or co-author on nearly 100 scientific papers, abstracts and book chapters and has twenty-nine patents and applications in the fields of polymers and biomaterials. Previously Andy had spent four years with ICI in the area of membrane technology and two years with Johnson & Johnson leading projects in absorbent technologies. He has a BSc in Biochemistry & Chemistry, a PhD in Chemistry and is a Fellow of the Royal Society of Chemistry.

### **CHANDAN ALAM - QUEEN MARY, UNIVERSITY OF LONDON**

Chandan Alam, MD (Director since 2003) is the Business Development Director at William Harvey Research Limited. He joined the William Harvey Research Institute in 1991. He is also a Director of Transdermal Inc (Florida, USA), responsible for their Clinical Trials and Basic Science. Chandan has been a consultant to several start-up HealthCare companies. His research interests include inflammation and transdermal delivery of drugs.

### **GRAHAM BUCKTON - SCHOOL OF PHARMACY, UNIVERSITY OF LONDON**

Graham has a BPharm, PhD and DSc from University of London and is a fellow of the Royal Pharmaceutical Society, Royal Society of Chemistry and the AAPS. In 1989 he joined the School of Pharmacy, University of London where he is now Head of Department and Professor of Pharmaceutics. Graham founded and is Chief Executive of PharMaterials Ltd, a contract research company. He has a large research group of post-graduate and post-doctoral scientists, funded from industrial companies and research councils. The research relates to the amorphous state, powder processing, surface science, solid oral dosage forms, inhalation drug delivery and modified release dosage forms. He has become recognised for his use of isothermal microcalorimetry and vapour sorption techniques to assess the physical properties of materials. He has received the Pfizer Award, the British Pharmaceutical Conference Science Medal and the Stig Sunner Award (for "outstanding work in Thermochemistry and Thermal Analysis" from the US Calorimetry Conference).

### **SANDY MUNRO - GLAXOSMITHKLINE R&D**

Sandy completed his PhD in Synthetic Organic Chemistry in 1987 at the University of East Anglia. Sandy has been at Glaxo since 1987 and within Inhalation Product Development since 1992. His principal experience has been in the development of GSKs HFA MDI products, and since 2005 with a global remit to manage all of the science and technology development across both MDI and DPI inhalation delivery systems for Worldwide Inhalation Product Development.

### **TIM FELL - LONDON TECHNOLOGY NETWORK**

Tim has a D. Phil in Semiconductor Materials from the University of Oxford and an MBA from the London Business School. He migrated to the biological sciences in 1992 to work with DNA microarray pioneer Prof Ed Southern in his interdisciplinary research group in the Department of Biochemistry at the University of Oxford. In 1999 he left the academic environment to co-found Oxford Gene Technology (operations) Ltd where he developed a DNA microarray fee-for-service business. In 2002 UK anti-infective drug discovery company Arrow Therapeutics Ltd acquired the business, and he joined the management team as CTO responsible for technology related research and business opportunities.

### **See what participants said about previous LTN events:**

***"Thank you for the very valuable event"***

**R. Suzuki, Associate Director, EISAI EUROPE**

***"Excellent selection of speakers...excellent balance between industry and academic attendees"***

**R. Kamugasha, Research Fellow, UNIVERSITY COLLEGE LONDON**

***"I found the event extremely stimulating, it was good to get a different viewpoint and I will be making arrangements to visit some of the departments in the near future"***

**M. Pullen, Chief Systems Architect, SYMBIAN**

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**LTN's Mission:**

**To help technology-intensive companies be more effective and efficient in their “knowledge acquisition” from London’s universities.**

Each month, London Technology Network brings together industrial and academic thought leaders in the most powerful new technologies, both on the stage and in the audience. LTN discussions identify common technology platforms shared across industries and disciplines, and explore how industry, government and academia can collaborate to introduce and exploit these technologies. Attendees build personal networks that foster efficient transfer of technology and drive down the cost and time to deliver new products to market. Through the London Innovation Relay Centre we also run a series of workshops to help London companies identify their technology needs and find suitable technology partners.

**HOW TO GET THERE**

This event will take place in the **British Medical Association**, BMA House, Tavistock Square, London, WC1H 9JP, Tel 020 7383 6750.

For further information go to <http://www.bmahouse.org.uk/conf/index.htm>



**By tube**

Euston (Northern and Victoria lines), Russell Square (Piccadilly line), Euston Square (Circle, Metropolitan and Hammersmith & City lines) are only a few minutes walk away.

**By train**

Euston, King's Cross/St Pancras and Marylebone stations are close by.

**By car**

There is easy access from the M1 and M40 motorways. Limited car parking is available at BMA House with advance warning. An NCP car park is a few minutes walk away.

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