Targets, Molecules and Medicine

Assessing the interface between Industry and Academia

23rd March 2005, Kings College, London

In the rapidly changing and competitive pharmaceutical R&D environment, keeping up to date with the latest technologies and new findings is paramount. With reduced R&D productivity, patent expiry and increasing push on value from healthcare providers, pharmaceutical companies are re-assessing how they can effectively continue drug discovery. One way is more external collaboration particularly with academia. This event is the first in a two-part series of drug discovery events.
This programme will focus on developments in **biochemistry** and **bioinformatics** during drug discovery. The event will give you unique access to London's academic intellectual brilliance and special knowledge assessing cutting-edge research and latest developments in the drug discovery process. ◆ Find out the latest new technologies that will identify good starting compounds. ◆ Discover the benefits of target validation. ◆ Determine how miniaturisation will aid a quicker and more effective use of biochemical analyses. ◆ Learn how closer interactions between industry and academia can meet the need for a strong R&D pipeline to sustain revenues.

18.00- 18.30	**Registration with tea and coffee**
18.30- 18.40	**Introduction to aims and objectives of LTN** **Jolyon White,** *Technology Consultant,* **LONDON TECHNOLOGY NETWORK**
18.40- 20.15	**Speaker Presentations followed by Q&A**
20.15- 21.15	**Drinks Reception and Networking**

How can universities ensure they are visible early in the drug discovery process?
Chair: **Professor Tony Cass**, *Deputy Director and Research Director for Bio-nanotechnology,*
Institute of Biomedical Engineering, Imperial College London

1. New technologies for structure based drug design
- Benefits of establishing a fragmented based hit discovery strategy
- Structure based drug development
- Using technologies that identify good starting compounds
- Establishing how universities can beneficially collaborate

Professor John Ladbury, *Professor of Biophysics and a Wellcome Trust Senior Research Fellow in the Department of Biochemistry*, **University College London**

2. Genomic-scale production of proteins for target functional analysis, compound screening, structural biology and biopharmaceuticals
- Assessing the key role of reagent production in enabling drug discovery
- Examine strategies for production of protein targets for the 'druggable' genome and the potential for genomic-scale compound profiling
- Analysing new technologies and automation to increase success rates in X-ray crystallography
- Re-engineering the hybridoma process for novel antibody biopharmaceuticals

Mike Romanos, Vice President, *Gene Expression & Protein BioChemisty*, **GlaxoSmithKline**

3. Establishing the link with targets and molecules
- Assessing target selection, lead generation and optimisation
- Improving the selection of target for screening
- Bridging the gap to excite industry to interface with academics at an earlier stage

Malcolm Weir, *Chief Executive Officer,* **Inpharmatica Ltd**

4. Miniaturisation/Lab on a Chip
- Differentiating between planar microarray and microfluidic devices.
- Assessing materials and manufacturing of microfluidic lab-on-a-chips, the technologies for moving, separating and detecting samples
- Analysing the benefits and challenges of using lab-on-a-chip
- How lab-on-a-chip technology is solving problems in industry?

Tony Owen, *Marketing Manager*, *Liquid Phase Analysis Products,*
Agilent Technologies R&D and Marketing GmbH & Co

5.Question and Answer Session with the audience

All events are by INVITATION ONLY

Speaker Profile

Tony Cass is currently Professor of Chemical Biology, Deputy Director and Research Director for Bio-nanotechnology in the Institute of Biomedical Engineering at Imperial College London. A Fellow of The Royal Society of Chemistry, he trained originally as a chemist with degrees from the Universities of York and Oxford. He pioneered the use of synthetic electron transfer mediators for enzyme biosensors and his work in this area led to the development of the first electronic blood glucose measuring systems. Most of his research is focused on using engineered proteins and peptides in micro and nano-structured materials for high throughput analysis.

John E Ladbury is currently Professor of Biophysics and a Wellcome Trust Senior Research Fellow in the Department of Biochemistry at University College London (UCL). A graduate in chemistry and physics from the University of London, he went on to receive his PhD in inorganic polymer chemistry as a Ministry of Defence Research Scholar from the University of Greenwich in 1990. Professor Ladbury held postdoctoral appointments at Yale University, Harvard University Medical School and New York University Medical Center before taking up a Wellcome Trust Career Development Research Fellowship at the University of Oxford in 1995. Professor Ladbury received a Wellcome Trust Senior Fellowship after moving to UCL. His laboratory at UCL adopts a multi-disciplinary approach to understanding thermodynamic/structural correlation in interactions of proteins. His group are currently involved in drug development projects on inhibitors of intracellular signaling pathways and novel antibacterial targets.

Mike Romanos heads Gene Expression and Protein Biochemistry, responsible for development, production, characterisation, banking and supply of biological materials for drug discovery in GlaxoSmithKline. Previous pharmaceutical and biotechnology roles have spanned target selection, target validation, lead discovery, gene therapy, and vaccine development. Since 1995, in Glaxo Wellcome, he played a leading role in developing strategies for drug discovery in several target classes, particularly ion channels and 7TM receptors. Prior to that, in Wellcome, he led projects in virology and vaccine development. Mike trained originally as a molecular biologist in virology and yeast biotechnology. He carried out postdoctoral research on yeast genetics (Leicester University) and influenza virus transcription (National Institute for Medical Research, Mill Hill). He received a BA in Natural Sciences from Cambridge and PhD in Molecular Virology from the Dept of Biochemistry, Imperial College London.

Malcolm Weir was appointed Chief Executive Officer of Inpharmatica in 2000. He was previously Director of the Molecular Sciences Division of GlaxoWellcome, responsible for the UK's lead generation, target validation and exploratory discovery portfolio. He also played a leading role in developing Glaxo Wellcome scientific computing and proteomics strategies and contributed to numerous drug discovery projects. Malcolm joined GlaxoWellcome from Imperial College London where he obtained his BSc and PhD in biochemistry and biophysics. He was elected visiting professor of biochemistry at Imperial College London in 1997.

Tony Owen is Marketing Manager, focusing on liquid phase analysis products (HPLC, UV-Vis, CE and Lab-on-a-chip) at Agilent Technologies in Germany. He joined Agilent in 2000 as Section Manager for Lab-on-a-chip products. Prior to working for Agilent, Tony started his career in 1977 working as a Technical Officer for Associated Octel moving to Hewlett-Packard in 1986 focusing on Analytical Instruments and UV-Vis Spectroscopy products. Tony has BSc Honours in Chemistry and a PhD in Chemistry (Kinetics and Thermodynamics of Free Radicals Reactions.) He is a member of the Royal Society of Chemistry.

London Technology Network
Ideas into Action

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.

How to get to King's College, Franklin-Wilkins Building

The LTN event will take place at the **King's College London,** Franklin-Wilkins Building, 150 Stamford Street, London SE1 9NN, marked with a yellow star below. For further information go to http://www.kcl.ac.uk/maps/waterloo.html or http://www.streetmap.co.uk:

By tube and rail

Nearest Underground and train station is Waterloo (Northern Jubilee and Bakerloo lines).

Leave the main entrance of the station down the steps towards the Imax Cinema. You will have to use the subway in front of the station steps to do so. Once outside the Imax, on the circular walkway, turn off the passageway for Stamford Street. Take the flight of steps, on your right-hand side up to Stamford Street. The Franklin-Wilkins building is on your left.