

Monday, June 9<sup>th</sup>, 2008



(8.00-9.00) Registration, (9.00-9.15) Opening ceremony, (9.15-10.00) Plenary lecture

**Role of inflammation in the pathogenesis of Parkinson's disease: Models, mechanisms, and therapeutic interventions**

Dr. Jau-Shyong Hong, National Institute of Environmental Health Sciences, USA

10.00-10.30 Coffee

Modification of L-dopa and dopamine metabolism as a basis of drug therapy of Parkinson's Disease: key findings during the last 20 years	PMR – Pharmaceutical manufacturing research	Core competences in pharmacoconomics
<p>(10.30) Prof. David J. Brooks (Hammersmith Hospital, London, UK) Modification of L-dopa metabolism: benefits and problems</p> <p>(11.15) Dr. Erkki Nissinen (Orion Pharma, Espoo, Finland) Chemistry and biochemistry of COMT inhibitors</p> <p>(12.00) Dr. Markus Forsberg (University of Kuopio, Finland) Physicochemical and pharmacokinetic properties of COMT inhibitors</p>	<p>(10.30) Prof. Jouko Yliruusi (University of Helsinki, Finland) PMR - Pharmaceutical manufacturing research</p> <p>(11.00) Prof. Kozo Takayama (Hoshi University, Tokyo, Japan) Computer-aided design and optimisation of pharmaceutical formulations</p> <p>(11.45) Prof. Jamshed Anwar (University of Bradford, UK) Control of crystal nucleation: Insights from molecular simulation</p>	<p>(10.30) Alan Lyles, ScD, MPH, RPh (University of Baltimore, USA) Recent trends in pharmacoconomics: Needs &amp; unmet needs</p> <p>(11.15) Andreas Engström, Health Economist (LFN Pharmaceutical Benefits Board, Sweden) Cost-effectiveness in Swedish reimbursement decision making</p>
12.45-14.15 Lunch & Posters	12.30-14.15 Lunch & Posters	12.00-14.15 Lunch & Posters
<p>(14.15) Prof. Chuang Chiueh (Taipei Medical University, Taipei, Taiwan) Selegiline mimics preconditioning induction of the redox protein thioredoxin against MPP+-induced neurotoxicity</p>	<p>(14.15) Prof. Jukka Rantanen (University of Copenhagen, Denmark) Building the quality into manufacturing of macromolecular systems</p> <p>(14.45) Prof. Edward Hæggröm (University of Helsinki, Finland) Quantitative ultrasonics creates value in Pharma business: Characterization and actuation</p>	<p>Short views about situation in Finland:</p> <p>(14.15) Suvi-Anne Siimes, Executive Director (Pharma Industry Finland) Sui generis or sustainable solutions - What does a small country and its national policy look like from the industry perspective?</p> <p>(14.30) Akseli Kivioja, Chief Pharmaceutical Officer (Pharmaceuticals Pricing Board, Finland) The role of pharmacoconomics in Pharmaceuticals Pricing Board decision-making</p> <p>(14.45) Vesa Jormanainen, Head of Pricing &amp; Outcomes Research (Pfizer, Finland) Pharmacoconomics in a pharmaceutical company in Finland</p> <p>(15.00) Heikki Bothas, Executive Director (Finnish Generic Pharmaceutical Association) Generic pharmaceutical market in Finland</p>
15.15-15.45 Coffee	15.15-15.45 Coffee	15.15-15.45 Coffee
<p>(15.45) M.Sc.(Pharm) Merja H. Voutilainen (University of Helsinki, Finland) CDNF is a novel neurotrophic factor for dopaminergic neurons <i>in vivo</i></p> <p>(16.30-17.00) M.Sc.(Pharm) Marjo Pilttonen (University of Helsinki, Finland) Neuroprotective effects of coadministration of HB-GAM and GDNF in a rat model of Parkinson's disease</p>	<p>(15.45) Tero Närvänen (Orion Pharma, Espoo, Finland) Particle size determination during fluid bed granulation - Challenges and opportunities</p> <p>(16.15) Caroline Buschmüller (Heinrich-Heine University, Düsseldorf, Germany) In-line monitoring of granule properties in fluidized bed granulation processes using a novel PAT tool</p> <p>(16.30-16.45) Niina Kivikero (University of Helsinki, Finland) Monitoring solid-state transformations in theophylline-lactose granules during drying in the multipart microscale fluid bed powder processor</p>	

Tuesday, June 10<sup>th</sup>, 2008

(8.30-9.15) Plenary lecture

**Process and systems integration through miniaturisation - functional tools for the future**

*Prof. Steven Haswell, University of Hull, UK*



Modification of L-dopa and dopamine metabolism as a basis of drug therapy of Parkinson's Disease: key findings during the last 20 years	PMR – Pharmaceutical manufacturing research	Nano- and microtechnology in pharmacy
<p>(9.30) Prof. Vilho Myllylä (University of Oulu, Finland) Clinical trials with catechol-O-methyltransferase (COMT) inhibitors, entacapone and tolcapone</p> <p>(10.15) M.Sc.(Pharm) Mikko Käenmäki (University of Helsinki, Finland) Importance of the two forms of catechol-O-methyltransferase (COMT) in L-dopa metabolism: a pharmacokinetic study in COMT knock-out mice and in mice lacking soluble COMT</p>	<p>(9.30) Prof. Rudolf W. Kessler (Reutlingen University, Germany) Chemical imaging of tablets - Background, concepts and perspectives for online control</p> <p>(10.00) Prof. Chris Vervaet (Ghent University, Belgium) Hot stage extrusion as manufacturing tool for controlled release formulations</p> <p>(10.30) Marko Kuosmanen (University of Kuopio, Finland) Microtomography imaging as a characterization tool for solid dosage forms</p>	<p>(9.30) Prof. Mark Bradley (<i>University of Edinburgh, UK</i>) Hurray for the chemical microarray - massive parallel analysis of proteases, kinases and cells on glass slides</p> <p>(10.15) Doc. Sami Franssila (Helsinki University of Technology, Finland) Materials and technologies for analytical microsystems</p>
10.30-11.00 Coffee	10.45-11.15 Coffee	10.45-11.15 Coffee
<p>(11.00) Dr. Tapani Keränen (Tampere University Hospital, Finland) Comparative studies of dopamine agonists and other therapies</p> <p>(11.50) M.Sc. (Pharm) Anne Tammimäki (University of Helsinki, Finland) Effect of <i>Comt</i> gene disruption on extracellular dopamine concentration as measured by quantitative no-net-flux microdialysis</p>	<p>(11.15) Prof. Jerzy Baldyga (Warsaw University of Technology, Poland) Effects of mixing in pharmaceutical product design</p> <p>(11.45) Satu Virtanen (University of Helsinki, Finland) The effect of mixing time of the magnesium stearate on crushing strengths of tablets</p> <p>(12.00) Lauri Kurki (VTT, Oulu, Finland) Investigation of porosity of tablets using photoacoustic spectroscopy</p>	<p>(11.15) Prof. Gary Siuzdak (The Scripps Research Institute, San Diego, USA) Nanostructure-initiator mass spectrometry</p> <p>(12.00) Prof. Risto Kostianen (University of Helsinki, Finland) Microchip ionization mass spectrometry in drug analysis</p>
12.30-14.00 Lunch & Posters	12.15-14.15 Lunch & Posters	12.30-14.30 Lunch & Posters
<p>(14.00) Dr. Dag Nyholm (Uppsala university hospital, Uppsala, Sweden) Novel administration routes for levodopa and dopamine agonists</p>	<p>(14.15) Prof. Olav Kvalheim (University of Bergen, Norway) PAT - Optimal prediction of properties by means of tailor-made modeling of spectroscopic/chromatographic profiles</p> <p>(14.45) Dr. Aleksander Mendyk (Jagiellonian University, Cracow, Poland) Drugs release from hydrodynamically balanced systems analyzed with data-mining procedures by artificial neural networks</p> <p>(15.00) Jari Leskinen (University of Kuopio, Finland) Dissolution monitoring of hydrophilic matrix tablets by using frequency information of ultrasound echo</p>	<p>(14.30) Doc. Marc Baumann (University of Helsinki, Finland) Proteomic microchips</p> <p>(15.00) M.Sc. Laura Luosujärvi (University of Helsinki, Finland) Desorption atmospheric pressure photoionization-mass spectrometry in drug analysis</p>
14.45-15.15 Coffee	15.15-15.45 Coffee	15.15-15.45 Coffee
<p>(15.15) Prof. Anders Björklund (Lund University, Sweden) Gene therapy for Parkinson's disease</p> <p>(16.00-16.45) Dr. Seppo Kaakkola (Helsinki University Hospital, Finland) Experimental and alternative ways of drug treatment of Parkinson's disease</p>	<p>(15.45) Dr. Sabir Mirza (University of Helsinki, Finland) Recent developments in co-crystal design and pharmaceutical properties</p> <p>(16.15-16.30) Marja Savolainen (University of Helsinki, Finland) Improved insight into the dissolution behaviour of amorphous drugs by in-situ solid-state analysis</p>	<p>(15.45) Doc. Harri Siitari (VTT, Turku, Finland) Microsystems for drug development and diagnostics</p> <p>(16.15-16.30) Farzaneh Fayazpour (Ghent University, Belgium) Opportunities for digitally encoded microcarriers in pharmacy and cell based assays</p>

Wednesday, June 11<sup>th</sup>, 2008

(8.30-9.15) Plenary lecture

**System thinking and the future of medicine and personal health**

Prof. Jan van der Greef, University of Leiden, The Netherlands



Nano- and microtechnology in pharmacy	Recent development in metabolomics, lipidomics and proteomics	Green technologies and process engineering
<p>(9.20) Prof. Olli Ikkala (Helsinki University of Technology, Finland) Self-assembling nanostructures</p> <p>(10.00) Prof. Wim Hennink (Utrecht University, The Netherlands) Thermosensitive and biodegradable polymeric micelles with transient stability for targeted drug delivery</p> <p>(10.40) Anan Yaghmur (IBN, Austrian Academy of Sciences, Austria) Modulation of lipidic nanostructures by designer short peptide surfactants</p>	<p>(9.30) Prof. Roman Zubarev (Uppsala University, Sweden) Pathway search engine for proteomics - Dream, fact or fiction?</p> <p>(10.00) Prof. Olli Kallioniemi (Institute for Molecular Medicine Finland) Functional genomic technologies for genome-scale molecular therapeutics research</p>	<p>(9.30) Prof. James Clark (University of York, UK) Greener pharmaceuticals</p> <p>(10.15) Dr. Leif Kronberg (Åbo Akademi, Finland) Pharmaceuticals in the environment - an environmental hazard?</p>
10.55-11.25 Coffee	10.30-11.00 Coffee	10.45-11.15 Coffee
<p>(11.25) Prof. Stefaan De Smedt (Ghent University, Belgium) Advanced fluorescence microscopy methods illuminate the transfection pathway</p> <p>(12.05) Prof. Ernst Wagner (Ludwig-Maximilians University Munich, Germany) Mechanism of nonviral nucleic acid and gene delivery</p>	<p>(11.00) Prof. Gary Siuzdak (The Scripps Research Institute, San Diego, USA) A metabolomics platform for discovery and diagnosis</p> <p>(11.45) Dr. Julian L. Griffin (University of Cambridge, UK) Following the role of PPARs in controlling systemics metabolism by metabolomics</p>	<p>(11.15) Dr. Alexander Shikov (St-Petersburg Institute of Pharmacy, Russia) Green technology to boost production of natural extracts</p> <p>(11.30) Dr. Marjatta Louhi-Kultanen (Lappeenranta University of Technology, Finland) Applying PAT in reactive crystallization</p> <p>(11.45) Closing remarks</p>
12.45-14.15 Lunch & Posters	12.30-14.00 Lunch & Posters	12.15-14.15 Lunch
<p>(14.15) Prof. Rainer H. Müller (Free University Berlin, Germany) Second generation of drug nanocrystals for delivery of poorly soluble drugs: Smartcrystal technology</p> <p>(15.00) Dr. Alexander Shikov (St-Petersburg Institute of Pharmacy, Russia) Self-microemulsifying drug delivery system as nanosystems for bioavailability enhancement of flavonoids <i>in vitro</i></p>	<p>(14.00) Dr. Kim Ekroos (VTT, Espoo, Finland) Applications of lipidomics in pharmaceutical R&amp;D</p> <p>(14.30) Dr. Tarja Rajalahti (University Hospital, Bergen, Norway) Biomarker discovery from mass spectral profiles: A combined proteomics and multivariate analysis</p>	
15.15-15.45 Coffee	14.50-15.30 Coffee	
<p>(15.45-16.30) Prof. Jouni Hirvonen (University of Helsinki, Finland) Feasibility of silicon and silica based mesoporous materials for oral drug delivery applications</p>	<p>(15.30) Prof. Matej Orešič (VTT, Espoo, Finland) Systems biology in pharmaceutical R&amp;D</p> <p>(16.00-16.30) Dr. Erkki J. Karjalainen (University of Helsinki, Finland) Linking medicine to metabolomics and proteomics</p>	