Sunday September 30, 2012

13:00  Registration

Session Workshop 1
14:00  Preparative HPLC: Phase Screening, Method Optimization, Process Development. Troubleshooting a Preparative Chromatographic Device  
Dr Michael SCHULTE  
(MERCK, Darmstadt, Germany)

Session Workshop 2
14:00  From Development to Commercial Scale: Rules to Scale up, QbD, Regulatory, Process Validation  
Dr Alessandro BUTTE  
(ETH ZURICH, Zurich, Switzerland)

Session Workshop 3
14:00  Multicolumn Processes: from Historical SMB to the Latest Advances in the Purification of Biomolecules  
Prof. Arvind RAJENDRAN  
(UNIVERSITY OF ALBERTA, Edmonton, AB, Canada)

15:30  Coffee Break

Session Workshop 4
16:00  Solving a Purification Process: Choice of the Appropriate Process (Batch vs Continuous, Low Pressure vs High Pressure, Liquid vs SFC, Centrifugal Partition Chromatography vs Countercurrent Chromatography)  
Dr Eric VALERY  
(NOVASEP, Pompey, France)

Session Workshop 5
16:00  Process Design for Purification of Small Molecules  
Prof. Jochen STRUBE  
(CLAUSTHAL UNIVERSITY OF TECHNOLOGY, Clausthal-Zellerfeld, Germany)

Session Workshop 6
16:00  Process Design for Purification of Biomolecules  
Prof. Alois JUNGBAUER  
(UNIVERSITY OF NATURAL RESOURCES AND APPLIED LIFE SCIENCES, Vienna, Austria)

18:00  Welcome reception
Monday October 1, 2012

09:00 Welcome

Session 1: Quality by Design

Session Chair
Prof. Massimo MORBIDELLI
(ETH ZÜRICH, Zürich, Switzerland)

09:20 Quality by Design in API Purifications. Making the Right Things
Dr Alessandro BUTTE
(ETH ZURICH, Zurich, Switzerland)

10:00 Quality by Design with Rigorous Process Modeling as Platform Technology of the Future
Mr Christoph HELLING
(CLAUSTHAL UNIVERSITY OF TECHNOLOGY, Clausthal-Zellerfeld, Germany)

10:20 A Model Based Approach to Reducing the Analytical Burden of High Throughput Screening
Dr Marcus DEGERMAN
(LUND UNIVERSITY, Lund, Sweden)

10:40 Characterization of Adsorption in SFC: an Evaluation of Methods Used in LC
Prof. Torgny FORNSTEDT
(KARLSTAD UNIVERSITY, Karlstad, Sweden)

11:00 Coffee Break

Session 2: Multicolumn Chromatography

Session Chair
Dr Eric FRANCOTTE
(NOVARTIS, Nuglar, Switzerland)

11:30 Experimental Study on a Binary Chromatographic System Subject to a Mixed Competitive-Cooperative Adsorption Isotherm
Mr Simon JERMANN
(ETH ZÜRICH, Zurich, Switzerland)

11:50 Relay SMB: A Simple and Efficient Way of Implementing Simulated Moving-Bed Chromatography
Prof. José Paulo MOTA
(REQUIMTE/CQFB, FFCT, Caparica, Portugal)

12:10 Model Mismatch Resolution and Optimization for Simulated Moving Bed and Continuous Chromatographic Processes
Prof. Yoshiaki KAWAJIRI
(GEORGIA INSTITUTE OF TECHNOLOGY, Atlanta, United States)

12:30 Lunch, Vendor Seminar (Novasep, Waters, Phenomenex, Knauer)

Session 3: Innovative Production Technologies
Session Chair
Prof. Andreas SEIDEL-MORGENSTERN (MAX PLANCK INSTITUTE FOR DYNAMICS OF COMPLEX TECHNICAL SYSTEMS, Magdeburg, Germany)
Prof. Tuomo SAINIO (LAPPEENRANTA UNIVERSITY OF TECHNOLOGY, Lappeenranta, Finland)

14:00 Biological Production of Peptides
Prof. Susanna LEONG
(NANYANG TECHNOLOGICAL UNIVERSITY, Singapore, Singapore)

14:40 Nanofiltration of Peptides in Acetonitrile/Water Mixtures: Process Development
Ms Patrizia MARCHETTI
(LONZA, Visp, Switzerland)

15:00 Efficient API Purification or How Combining OSN and Chromatography Increases Your Process Yields!
Dr Muriel NASSO
(EVONIK, Wembley, United Kingdom)

15:20 Separation of Bionanoparticles and Biological Superstructures
Prof. Alois JUNGBAUER
(UNIVERSITY OF NATURAL RESOURCES AND APPLIED LIFE SCIENCES, Vienna, Austria)

15:40 Coffee Break

Session 4: Fundamentals

Session Chair
Prof. Alois JUNGBAUER
(UNIVERSITY OF NATURAL RESOURCES AND APPLIED LIFE SCIENCES, Vienna, Austria)

16:10 Molecular Engineering of Multiple Weak Interactions for High Selectivity Bioseparations
Prof. Steven CRAMER M
(RENSSELAER POLYTECHNIC INSTITUTE, Troy, United States)

16:50 Modeling of Protein Aggregation in Preparative Chromatography
Prof. Bernt NILSSON
(LUND UNIVERSITY, Lund, Sweden)

17:10 Modeling Protein Adsorption Equilibria on Ion-Exchange Resins
Dr Bertrand GUELAT
(NOVAARTIS PHARMA AG, Basel, Switzerland)

17:30 Distributed Pore Surface Model
Ing Niklas BORG
(LUND UNIVERSITY, Lund, Sweden)

17:50 Study of Hydodynamics in Chromatographic Columns by Computed X-Ray Tomography and its Evaluation by CFD Simulations
Ms Irma SCHMIDT
(UNIVERSITY ERLANGEN-NUREMBERG, Erlangen, Germany)

18:10 Poster Session #1
Tuesday October 2, 2012

07:00 Young Scientist Breakfast

Session 5: Green Technology - Complex Continuous Resolution

Session Chair
Prof. Arvind RAJENDRAN (UNIVERSITY OF ALBERTA, Edmonton, AB, Canada)
Dr Svetlana IGNATOVA (BRUNEL UNIVERSITY, Uxbridge, United Kingdom)

08:50 Preparative Chiral Chromatography: What Can Go Wrong and How to Solve it
Dr Pilar FRANCO
(CHIRAL TECHNOLOGIES, INC, Illkirch, France)

09:10 Supercritical Fluids as the Desorbent for Simulated Moving Bed? Application to the Concentration of Triterpenoids from Taiwanofugus Camphorate
Ms Liang RU CHIEN
(I SHOU UNIVERSITY, Kaohsiung City, Taiwan)

09:30 Optimization of Simulated Moving Bed Processes for Multicomponent Chiral Separations
Dr António E. RIBEIRO
(POLYTECHNIC INSTITUTE OF BRAGANÇA, Braganca, Portugal)

09:50 A Non-Conventional Application of Simulated Moving Bed Technology: Purification of a Complex Mixture
Ms Kiara KOCHENDOERFER
(UNIVERSITY ERLANGEN-NUREMBERG, Ludwigshafen, Germany)

10:10 Coffee Break

Session 6: Partitioning and Extraction

Session Chair
Prof. Joachim KINKEL
(GEORG-SIMON-OMH UNIVERSITY OF APPLIED SCIENCES, Nuernberg, Germany)

10:40 Liquid-Liquid Extraction of Biomolecules - Process Development and Integration into Downstream Processing
Mr Jan Kristof EGGERSGLUESS
(CLAUTHAL UNIVERSITY OF TECHNOLOGY, Clausthal, Germany)

11:00 Design Of Tailor-Made Stationary And Mobile Phase In Liquid-Liquid Chromatography
Prof. Miriana MINCEVA
(UNIVERSITÄT ERLANGEN, Freising, Germany)

11:20 Towards Optimally Sized Centrifugal Partition Chromatography Columns - Process Design Methodology and Applications
Mr Sebastien CHOLLET
(GEPEA LABORATORY, Saint-Nazaire, France)

11:40 Scalable Technology for the Extraction of Pharmaceuticals (STEP): Progress on Developing Versatile Small Footprint Technology for Continuous Processing at the Lab Scale up to 1 Kg/Day
Prof. Ian SUTHERLAND (BRUNEL INSTITUTE FOR BIOENGINEERING, Uxbridge, United Kingdom)
Dr Svetlana IGNATOVA (BRUNEL UNIVERSITY, Uxbridge, United Kingdom)
Session 7: Process Integration 1 - Isomeric Separation

Session Chair
Dr Shalini ANDERSSON (ASTRAZENECA, Mölndal, Sweden)
Prof. Mirjana Minceva (Universität Erlangen, Freising, Germany)

13:30 Implementation of a Continuous Chromatography Step in the Synthesis of an API – Combining Chemistry and Chromatography to Achieve Better Economics
Dr Olivier Dapremont
(AMPAC Fine Chemicals, Rancho Cordova, United States)

14:10 Continuous Synthesis and Purification Through Direct Combination of a Flow Reactor and Simulated Moving Bed Chromatography
Dr Ju Weon Lee
(Max-Planck-Institute for Dynamics of Complex Technical Systems, Magdeburg, Germany)

14:30 Integrated Chromatographic Processes for the Production of Pure Enantiomers
Prof. Malte Kaspereit
(Friedrich-Alexander University Erlangen-Nürnberg, Erlangen, Germany)

14:50 From Racemate to Single Enantiomer with 100% Yield by Process Integration of SMB and Enzymatic Racemization
Mr Markus Fuereder
(ETH Zürich, Basel, Switzerland)

15:10 Coffee Break sponsored by AMPAC Fine Chemicals

Session 8: Process Integration 2 - Food and Products

Session Chair
Dr Eric Valery (Novasep, Pompey, France)
Prof. Malte Kaspereit (Friedrich-Alexander University Erlangen-Nürnberg, Erlangen, Germany)

15:40 New Approaches to Food Fractionation by Chromatography: Adapting High-Cost Techniques to the Production of Moderate-Value Products
Prof. Conan Fee
(University of Canterbury, Christchurch, New Zealand)

16:20 A Reaction-Separation Integrated Process for the High-Yield Synthesis of Rare Sugars
Ms Nina Wagner
(ETH Zurnich D-BSSE, Basel, Switzerland)

16:40 Chromatographic Process Options for Reduced Purities
Prof. Tuomo Sainio
(Lappeenranta University of Technology, Lappeenranta, Finland)

17:00 Model Based Design and Integration of Crystallization Processes of Natural Products in Down Stream Processing
Mr Iraj Koudous
(Institut für Thermische Verfahrens- und Prozesstechnik, Clausthal-Zellerfeld, Germany)
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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>17:20</td>
<td><strong>Special Symposium - Roundtable Discussion: Process Integration and Intensification</strong>&lt;br&gt;Dr Olivier DAPREMONT (AMPAC FINE CHEMICALS, Rancho Cordova, United States)&lt;br&gt;Dr Eric VALERY (NOVASEP, Pompey, France)&lt;br&gt;Dr Shalini ANDERSSON (ASTRAZENECA, Mölndal, Sweden)</td>
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<td>18:00</td>
<td><strong>Poster Session 2</strong></td>
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<td>20:00</td>
<td><strong>Gala Dinner</strong></td>
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Wednesday October 3, 2012

Session 9: SMB and Novel Chromatography Approaches

Session Chair
Prof. José Paulo MOTA
(REQUIMTE/CQFB, FFCT, Caparica, Portugal)

08:50  Enabling High Purities and Yields in Therapeutic Peptide Purification by Using Continuous Chromatography (MCSGP)
Dr Thomas MÜLLER-SPÄTH
(CHROMACON AG, Zurich, Switzerland)

09:10  Continuous Purification of Single-Chain Antibody Fragments by Simulated Moving Bed Chromatography
Mr Carlos Andres MARTINEZ CRISTANCHO
(MAX-PLANCK-INSTITUT MAGDEBURG, Magdeburg, Germany)

09:30  Integration of Hydrophobic Interaction- and Ion Exchange Chromatography
Mr Tim WELLSANDT
(INSTITUT FÜR THERMISCHE VERFAHRENS- UND PROZESSTECHNIK, Clausthal-Zellerfeld, Germany)

09:50  Purification of Proteins from Human Blood Plasma by Multicolumn Solvent Gradient Purification
Mr Daniel BAUR
(ETH ZÜRICH, Zurich, Switzerland)

10:10  Poster Prize

10:30  Coffee Break

Session 10: Affinity Ligands and Biopharmaceuticals

Session Chair
Prof. Jochen STRUBE
(CLAUSTHAL UNIVERSITY OF TECHNOLOGY, Clausthal-Zellerfeld, Germany)

11:00  Molecular Modeling of the Affinity Chromatography of Proteins: Status and Perspectives
Prof. Carlo CAVALLOTTI
(POLITECNICO DI MILANO, Milano, Italy)

11:40  Peptidomimetic Affinity Ligands (PALs) - A Powerful Approach to Improving DSP Performance
Dr Matthias PASCHKE
(3B PHARMACEUTICALS GMBH, Berlin, Germany)

12:00  New Trend in Material Development for Peptide Purification
Dr Nicola FORRER
(ZEOCHEM, Uetikon am See, Switzerland)

12:20  A New Disposable Technology for Chromatographic Purification of Biopharmaceuticals
Dr David YAVORSKY
(MERCK-MILLIPORE, Bedford, United States)

12:40  Shifting the Scale-up Limits of Disposable Downstream Processing
Mr. Marcel RAEDTS  
(PROXCYS BV, Nieuw Amsterdam, The Netherlands)  

13:00  Closing Remarks