

## Keynote Lectures

L01

**Drug Delivery in the GI Tract: How Controlled is Controlled Release?**

W. WEITSCHIES

L02

**Nanofibers, nanofluidics, nanoparticles and nanobots for drug and protein delivery systems**

A. L. YARIN

L03

**Continuous Pharmaceutical Manufacture Using a Novel Wet Granulation Technique**

J. P. K. SEVILLE, M. WATERS

L04

**Chemical Swarm Robots: Design, Synthesis and Functionality**

F. STEPANEK

L05

**Nanomedicine for Drug Delivery across Epithelial Barriers: Intestines, Skin and Lungs**

C.-M. LEHR

L06

**Nanoparticles for Cell Specific Drug Delivery**

K. LANGER

L07

**Toxicokinetics of Insoluble Nanoparticles in Rodents after Different Routes of Administration**

W. G. KREYLING

L08

**AD model of the epithelial airway barrier to study uptake, cell responses and intracellular distribution of nanoparticles**

B. ROTHEN-RUTISHAUSER, C. BRANDENBERGER, A. LEHMANN, P. GEHR

L09

**Process Analytical Technology Enabling Continuous Drug Product Manufacturing**

S. HAMMOND, M. MOSHGBAR

L10

**Spectroscopic Investigations of Drug Substances and Drug Formulations**

T. RADES

L11

**What do we Know about Tablet Coating Uniformity?**

P. KLEINEBUDDDE

L12

**Melt Granulation as a Modern Technological Procedure**

G. REGDON JR.

L13

**Translational Medicine: Pharmacokinetic and Pharmacogenetic Aspects of Personalized Pharmacotherapy**

I. GRABNAR

L14

**Geriatric Therapeutic Care – A Story to Tell about my Grand-Parents**

S. STEGEMANN

## Oral Presentations

LDD01

### **Development of Probiotic Formulations Containing Shellac**

S. STUMMER, S. SALAR-BEHZADI, H. VIERNSTEIN

LDD02

### **Non-Invasive Oligonucleotide Delivery System Based on a Thiolated Polymer: Development and *In Vitro* Evaluation**

R. MARTIEN, H. HOYER, G. PERERA, A. BERNKOP-SCHNÜRCH

LDD03

### **Microcarriers for Controlled Local Delivery of Mupirocin: Preparation and Characterisation**

M. DÜRRIGL, A. HAFNER, J. FILIPOVIĆ-GRČIĆ

LDD04

### **New Hierarchically Organized Systems for Delivery**

O. GLATTER, C. KULKARNI, A. CHEMELLI

LDD05

### **Targeted PLGA-Microparticles as a Novel Concept for Treatment of Lactose Intolerance**

X. WANG, G. RATZINGER, M. WIRTH, F. GABOR

LDD06

### **Delivering of Resveratrol with Solid Lipid Nanoparticles Improved Mitochondria Activity**

K. TESKAC, J. PELIPENKO, J. KRISTL

LDD07

### **Optimization of Cationic SLN for Gene Delivery**

S. DOKTOROVOVA, A. M. SILVA, C. M. LOPES, P. MARTINS-LOPES, E. B. SOUTO

LPES01

### **The Potential of Continuous Processing in Secondary Manufacturing**

R. VANGENECHTEN, I. BACKX

LPES02

### **Measuring the Mixing Rate in Bladed Mixers**

S. RADL, D. BRANDL, H. HEIMBURG, J. G. KHINAST

LPES03

### **LBM Simulation of Pharmaceutical Particles in Laminar Air Flows**

M. DIETZEL, M. SOMMERFELD

LPES04

**Computational Fluid Dynamics, Sophisticated Marketing Tool or Reliable Method for Pharma- and Biotech Processes**

A. RINDERHOFER, D. SUZZI, T. HÖRMANN, M. IANNUCCELLI, J. G. KHINAST

LPES05

**Optimal Particle Size Distribution Control in a Pharmaceuticals Batch Dryer Using a Hybrid Genetic Algorithm-Pattern Search Optimization Strategy**

L. L. SIMON, M. SCHONGUT, F. STEPANEK, K. HUNGERBUHLER

LPES06

**Combined Numerical Method for Multi-Scale Analysis of Tablet Coating Processes**

D. SUZZI, G. TOSCHKOFF, D. MACHOLD, S. RADL, J. G. KHINAST

LPES07

**Numerical Simulation of Drop Impact on Wetted and Dry Surfaces**

M. GATTRINGER, H. STEINER

LNM01

**Magnetoliposomes: Liposomal Contrast Agents**

D. FRASCIONE, M. SABA-LEPEK, C. DIWOKY, P. OPRIESSNIG, R. STOLLBERGER, G. ALMER, H. MANGGE, R. PRASSL

LNM02

**Determination of the structure of a new nanoscaled ultrasound contrast agent**

J. BRÜSSLER, E. E. J. MARXER, A. BECKER, R. SCHUBERT3, C. NIMSKY, U. BAKOWSKY

LNM03

**Effect of High-Pressure Homogenization on the Formulation of Micro- and Nanocrystals Containing Poorly Watersoluble Meloxicam**

R. AMBRUS, A. POMÁZI, J. KRISTL, P. KOCBEK, P. SZABÓ-RÉVÉSZ

LPAT01

**Real Time Measurement of Particle Size as a Response to the FDA's PAT Regulatory Framework**

B. LOOSER, A. VAISMAN, A. BLASCO

LPAT02

**Real-Time Monitoring of Powder Mixing Dynamics with Spectroscopic PAT-Tools**

D. M. KOLLER, N. BALAK, O. SCHEIBELHOFER, J. MOOR, G. HÖRL, N. HEIGL, S. D. FRASER, J. G. KHINAST

LPAT03

**A Contribution to the Application of Near-Infrared Spectroscopy for Tablet Analysis: Metformin Hydrochloride Tablets Case Study**

L. MARIĆ, I. HOMŠEK

LNT01

**Important Parameters in Cytotoxicity Testing of Nanoparticles**

C. MEINDL, E. ROBLEGG, T. R. PIEBER, E. FRÖHLICH

LNT02

**Development of Solid Lipid Nanoparticles for Praziquantel Delivery: Particle Size Characterization and Cell Toxicity Assessment**

A. L. R. SOUZA, T. ANDREANI, S. DOKTOROVOVÁ, A. M. SILVA, E. B. SOUTO, M. P. D. GREMIÃO

LNT03

**Does Continuous Exposure to ZnO and TiO<sub>2</sub> NPs Cause any Changes in Keratinocytes?**

P. KOCBEK, K. TESKAČ, M. E. KREFT, J. KRISTL

LNT04

**Transport Studies of Nanostructured Materials across the Buccal Mucosa**

E. ROBLEGG, E. FRÖHLICH, G. LEITINGER, I. LETOFSKY-PAPST, A. ZIMMER

LNT05

**A Model for Studying Nasal Drug Delivery: RPMI650 Human Nasal Epithelial Cell Line**

L. KÜRTI, L. KIS, S. VESZELKA, P. SZABÓ-RÉVÉSZ, M. A. DELI

LNT06

**European Center for Nanotoxicology – Nanoscale Materials: A New Challenge for Toxicology**

F. SINNER, E. ROBLEGG, E. FRÖHLICH, A. ZIMMER, A. FALK

LPPT01

**Quantitative Design of Continuous Mixing Processes for Pharmaceutical Applications**

F. MUZZIO

LPPT02

**Do the Characteristics of Xanthan Single Molecule Reflect the Behavior of Matrix Tablets?**

S. BAUMGARTNER, J. KRISTL, B. GOVEDARICA, S. SRČIĆ, A. ZUPANČIĆ VALANT, U. MIKAC, A. SEPE

LPPT03

**Development of Modified Release Pellets via Dry Powder Coating**

M. SMIKALLA, N. A. URBANETZ

LPPT04

**Effect of Inert Core Material on the Processability and Quality Characteristics of Coated Pellets**

I. ANTAL, N. KÁLLAI, O. LUHN, J., H. MOLA, A. RUSZKAI, E. BALOGH, DREDÁN, I. KLEBOVICH

LPPT05

**Pharmaceutical Hot Melt Extrusion**

N. NEUB

LPPT06

**Spatial Filtering Technique as Powerful Tool for Real-Time Particle Size Measurement for Fluid Bed Applications in Pharmaceutical Industry**

S. DIETRICH, D. PETRAK, M. KÖHLER, G. ECKARDT

LPPT07

**Evaluation of Micro Fluidic High Pressure Dispersion/Emulsification for SLN Production**

J. H. FINKE, J. SCHUR, T. GOTHSCH, S. BEINERT, C. LESCHE, S. BÜTTGENBACH, A. KWADE, C. C. MÜLLER-GOYMAN

LPM01

**Iterative Method for Constructing Dosing Regimes for Controlling HIV Dynamics**

N. D. EVANS

LPM02

**Alternatives to Laboratory Animals: *In Vitro* and *In Silico* Approaches**

S. CASCONE, F. DE SANTIS, G. LAMBERTI, G. TITOMANLIO, A. A. BARBA

## **Posters**

PDD01

### **Interaction of β-Cyclodextrin with DNA-Bases**

E. LIEDL, A. BEYER, P. WOLSCHEIN, H. VIERNSTEIN

PDD02

### **Quantifying nuclear import of lipoplex-delivered-pDNA in A10 and MDCK cells**

A. STEINBACH, R. SÜSS

PDD03

### **Preparation of Recombinant Human Hydroxysteroid Dehydrogenases and Study of their Inhibitors**

P. BROŽIČ, S. GOBEC, T. LANIŠNIK RIŽNER

PDD04

### **Stabilization of Human Growth Hormone Against Deamidation by Interaction with Strongly Basic Protamines from Salmon**

E. ABLINGER, S. WEGSCHEIDER, T. PAVKOV-KELLER, W. KELLER, R. PRASSL, A. ZIMMER

PDD05

### **Human Growth Hormone – Insights into its Aggregation Behavior using Denaturation Pathway Characterization**

J. WIESBAUER, S. LEITGEB, B. NIDETZKY

PDD06

### **Nanostructured Dispersions as Delivery Systems**

A. CHEMELLI, O. GLATTER

PDD07

### **In Vitro Characterisation of Vancomycin Loaded Glyceryl Monoooleate-Water Liquid Crystalline Gel/Implants for Ocular Application**

S. MILAK, J. PARDEIKE, A. CHEMELLI, O. GLATTER, A. ZIMMER

PDD08

### **In Vitro and In Vivo Evaluation of Drug Release from Semisolid Dosage Forms**

É. PETRÓ, I. CSÓKA, Á. BALOGH, G. BLAZSÓ, I. ERŐS

PDD09

### **Gel Emulsions as Controlled Drug Delivery Systems**

M. BUDAI-SZŰCS, I. ERŐS

PDD10

### **The Study of Flowing Properties of Hydrogels**

P. HERDOVÁ, Z. VITKOVÁ

PDD11

**A New Microemulsion for the Transdermal Delivery of Quercetin**

L. MALAJ, V. MARTENA, S. GIOVENALI, P. DI MARTINO

PDD12

***In Vitro* Release Behavior of Naproxen in Alginate–Chitosan Microparticles as Oral Drug Delivery Systems**

B. ČALIJA, N. CEKIĆ, S. SAVIĆ, J. MILIĆ

PDD13

**Study of Formulation Factors Influencing Phenytoin Release Rate from Alginate–Chitosan Microparticles using an Experimental Design Approach**

N. CEKIĆ, B. ČALIJA, S. SAVIĆ, J. MILIĆ

PDD14

**Probing the Surface Properties of Solid Lipid Nanoparticles by Atomic Force Microscopy**

B. GOVEDARICA, K. TESKAČ, S. PAJK, S. PEČAR, S. SRČIĆ, J. KRISTL

PDD15

**Microparticles Based on Low Melting Hydrophilic Polymers Prepared by Spray Drying**

M. HOMAR, J. KERČ

PDD16

**Furosemide-Loaded Microcapsules: The Influence of Lactose Content on Encapsulation Efficiency and Drug Release**

A. ZVONAR, M. GOSENCA, M. GAŠPERLIN

PDD17

**Solubilization of Drugs by Aqueous Lecithin Dispersions Intended for Parenteral Use**

M. SZNITOWSKA, M. PLACZEK, A. KLUK

PDD18

**Dissolution Rate of Microencapsulated Active Substances**

I. ERŐS, D. PÉTER, P. SIPOS, P. KÁSA, K. HÓDI

PDD19

**Impact of Particles Size Distribution on Diazepam 5mg Tablets Dissolution**

B. PILIPOVIĆ, M. VEHABOVIĆ, E. HADŽOVIĆ, N. ŠARIĆ

PDD20

***In Vitro* Release of Indomethacin and Hydrocortisone from Suspensions and Self-Emulsifying Oils**

A. CZAJKOWSKA-KOŚNIK, M. SZNITOWSKA

PDD21

**Influence of Dissolution Media Composition on Cefaclor Release form Capsules**

A. SPASIĆ, I. HOMŠEK

PDD22

***In Vitro* Evaluation of Extended Release HPMC Matrix Tablets and Correlation with**

***In Vivo* Data**

U. KLANČAR, I. LEGEN, M. HORVAT

PDD23

**Release of Theophylline from Sustained Release Cylindrical Dosage Forms**

M. BOGATAJ, B. RUŽIĆ, B. PERISSUTTI, D. VOINOVICH, A. MRHAR

PDD24

**Formulation Development of Immediate Release Tablets Containing Fluoroquinolone Antibiotic by use of Experimental Design**

J. BOŽIĆ, M. ĐOKIĆ

PDD25

**Influence of Caloric Value of Food on Gastric Emptying of Pellets**

B. BÜRMEN, I. LOCATELLI, A. MRHAR, M. BOGATAJ

PDD26

**Development of Micropellets for Buccal Drug Delivery**

S. SCHRANK, J. KHINAST, A. ZIMMER, E. ROBLEGG

PDD27

**Gastro-Intestinal Lymphatic Absorption of *Silybum Marianum* Formulated in Self-Emulsifying Pellets**

D. VOINOVICH, F. SERDOZ, B. PERISSUTTI, D. HASA, J. PINTO, G. P. ZARA, A. BARGONI, I. GRABNAR

PDD28

**Design and Characterization of Polymeric Blends for Biomedical Applications**

A. A. BARBA, G. LAMBERTI, L. RABBIA, M. GRASSI, G. GRASSI, D. LAROBINA

PDD29

**Effect of Polymer Charge on Permeability of Urinary Bladder Wall**

M. KEREC KOS, M. BOGATAJ, A. MRHAR

PDD30

**Membrane-Mediated Effects of General Anesthetics on Ion Channels**

G. PABST, H. JERABEK, M. RAPPOLT, T. STOCKNER

PDD31

**Intra-Articular Drug Delivery Systems for Osteoarthritis Treatment**

J. PRADAL, O. JORDAN, C. GABAY, P. A. GUERNE, M. C. BAGLEY, E. DOELKER, J. M. WALDBURGER, E. ALLÉMANN

PDD32

**Case by Case Physicochemical and *In Vitro/In Vivo* Biopharmaceutical Characterization of Alkyl Polyglucoside-Based Vehicles: Ketoprofen as a Model Drug**

I. JAKSIC, M. LUKIC, R. DANIELS, S. REICHEL, J. MILIC, S. SAVIC

PDD33

**Spontaneous Formation of Theophylline–Nicotinamide Cocrystals**

T. ERVASTI, J. KETOLAINEN, J. AALTONEN

PDD34

**Electrostatic Charge on Pharmaceutical Powders for Pulmonary Application**

S. KARNER, N. A. URBANETZ

PDD35

**Characterization of Antifungal Nail Lacquer Formulations Containing Fluconazole**

A. ELEZOVIĆ, S. HADŽOVIĆ, Š. HADŽIDEDIĆ, S. KOSTIĆ

PDD36

**Modelling Swelling, Erosion and Release of Drug from Hydrogel Based Solid Matrices**

G. LAMBERTI, I. GALDI, G. TITOMANLIO, A. A. BARBA, M. D'AMORE

PDD37

**Influence of Concentration of Selected Cationic Surfactants on Drug Liberation**

Z. VITKOVÁ, D. ANTONYOVÁ, P. HERDOVÁ, M. ŽABKA, J. OREMUSOVÁ

PDD38

**Influence of Adjuvances on the Drug Release from Hydrogels**

J. OREMUSOVÁ, Z. VITKOVÁ, P. HERDOVÁ

PMS01

**Continuous API Synthesis using Heterogeneous Catalysis**

H. GRUBER-WÖFLER, P. RADASCHITZ, P. FEENSTRA, G. J. LICHTENEGGER, E. POLO, J. G. KHINAST

PMS02

**A Microreactor Strategy for the Synthesis of Tetrazoles**

B. GUTMANN, J. P. RODUIT, D. ROBERGE, C. O. KAPPE

PMS03

**Continuous Flow Chemistry under High-Temperature / High-Pressure Conditions**

D. OBERMAYER, T. N. GLASNOV, T. RAZZAQ, M. IRFAN, M. DAMM, C. O. KAPPE

PMS04

**Heterogeneous Hydrogenations in Continuous Flow**

M. IRFAN, T. N. GLASNOV, C. O. KAPPE

PMS05

**Assessment of Powder Mixing using Positron Emission Tomography and Particle Tracking**

B. ARMSTRONG, J. SEVILLE, D. PARKER

PMS06

**Simulation Studies for the Effects of Particle Size and Blade Rake Angle on Particle Mixing**

M. S. SIRAJ, S. RADL, J. G. KHINAST

PMS07

**Quantitative Quasi-Simultaneous and Spatially Resolved Real-time Monitoring of Powder Mixing Processes with a Multiple NIR-Probe Setup**

N. BALAK, O. SCHEIBELHOFER, D. M. KOLLER, J. G. KHINAST

PMS08

**Linking Rheological Key Parameters of Pharmaceutical Powders to Mixing Properties**

O. SCHEIBELHOFER, N. BALAK, D. M. KOLLER, S. D. FRASER, T. FREEMAN, J. G. KHINAST

PMS09

**Simulation of Fluid Mixing and Dissolution Processes**

T. HÖRMANN, M. GSÖLL, J. HOFER, D. SUZZI, J. G. KHINAST

PMS10

**Role of the Surface Free Energy in the Preparation of Granules and in the Selection of a Suitable Device**

A. KORBELY, K. PINTYE-HÓDI

PMS11

**Fluidized Hot Melt Granulation: Influence of Process and Formulation Parameters**

I. MAŠIĆ, A. STOJKOVIĆ, J. PAROJČIĆ, Z. ĐURIĆ

PMS12

**Continuous Pelletization – Effect of Process Parameters**

C. MUEHLENFELD, R. STEINER, M. THOMMES

PMS13

**New Insights into the Pelletization Mechanism by Extrusion/Spheronization**

M. KOESTER, M. THOMMES

PMS14

**Study of the Uniformity of the Coating Thickness of Pellets Coated by Wurster and Swirl Flow Generator Equipped Coater**

M. LUŠTRIK, R. DREU, S. SRČIĆ

PMS15

**Study of the Recrystallization in Coated Pellets**

G. REGDON JR., K. NIKOWITZ, K. PINTYE-HÓDI, U. J. GRIESER

PMS16

**Novel Modeling Technique for Simulations of Turbulent Bubbly Flows with Coalescence and Breakup**

R. SUNGKORN, J. J. DERKSEN, J. G. KHINAST

PMS17

**Large-Scale GPU Simulations of Granular Flows and Fluidized Beds: An LBM-DEM Coupling Approach**

C. RADEKE, S. RADL, R. SUNKORN, D. SUZZI, J. G. KHINAST

PMS18

**Simulation of Particles with Different Coefficient of Restitution in Fluid Bed Coater**

R. ŠIBANC, R. DREU, S. SRČIČ

PMS19

**An Investigation into the Use of Polyox® as the Binding and Coating Agent in Fluidized-Bed Apparatus**

A. STOJKOVIC, I. MASIC, J. PAROJCIC, Z. DJURIC

PMS20

**Melt Granulation in Fluidised Bed: Screening of the Process Variables by Factorial Design**

G. CALOGERÁ, N. PASSERINI, B. ALBERTINI, D. HASA, D. VOINOVICH

PMS21

**A modification of Pr equation for Measurement of Tablet's Compactibility**

I. ILIĆ, P. KÁSA JR, R. DREU, K. PINTYE-HÓDI, S. SRČIČ

PMS22

**Computer-Aided Design of Pharmaceutical Tablet Formulations**

J. A. KIMBER, S. G. KAZARIAN, F. ŠTĚPÁNEK

PMS23

**The "Drill & Fill" Method**

C. PHILIPPE, D. HAEUSLER, L.-K. MIEN, K. KLETTER, R. DUDCZAK, W. WADSAK, H. VIERNSTEIN, M. MITTERHAUSER

PMS24

**Tracking of Physicochemical Properties in Free Films Containing an API**

É. BÓLCSKEI, G. REGDON, K. SÜVEGH, T. MAREK, K. PINTYE-HÓDI

PMS25

**Impact of Different Drying Processes on the Cellular Activity of *Enterococcus faecium M74***

S. STUMMER, M. C RABENREITHER, H. VIERNSTEIN, M. WIRTH, S. TOEGEL,  
S. SALAR-BEHZADI

PMS26

**Can Collapse Freeze Drying Provide High Density Protein Sugar Particles for Ballistic Powder Injection?**

E. E. KIS, G. WINTER, J. MYSCHIK

PMS27

**Hyperbranched Poly(ester amides) – New Solubilization Enhancers for Poorly Water-Soluble Slimepiride**

S. REVEN, J. GRDADOLNIK, J. KRISTL, E. ŽAGAR

PMS28

**Novel Approach in Formulation of Low Soluble Drugs: Gliclazide as Model Substance**

M. JOVIĆ, M. JEZDIĆ, J. PETROVIĆ, S. IBRIĆ

PMS29

**Preparation and Evaluation of Solid Oral Lipid-Based Diazepam Preparations**

N. RADOMAN, M. RADIVOJŠA, J. PETROVIĆ, S. IBRIĆ

PMS30

**Physical Stability of Carvedilol in Solid Dispersions with Porous Silica**

B. KOVAČIĆ, O. PLANINŠEK, F. VREČER

PMS31

**Taste Masking Technology: Recent Developments and Approaches**

A. TOMLJENOVICI GLUHAK, I. SIMČIĆ, G. MATIJAŠEVIĆ

PMS32

**Examination of High Pressure Micro Systems by µPIV and CFD Simulations Regarding Abrasion, Particle Deposition and Stress Fields**

T. GOTHSCH, S. BEINERT, J. H. FINKE, C. LESCHE, S. BÜTTGENBACH,  
C. MÜLLER-GOYMANN, A. KWADE

PMS33

**Oxazoline-Based Hydro-, Amphi- and Lipogels from Microwave-Assisted Synthesis**

F. WIESBROCK, A. HECKE, B. WIRNSBERGER, A. M. KELLY, F. STELZER

PMS34

**Experimental Study of Filter Cake Cracking During Deliquoring**

A. BARUA, W. EAGLES, G. GIORGIO, F. RICARD, F. STEPANEK

PMS35

**Impact of Tablets Hardness on Dissolution Rate of Metoprolol Tartrate 100 mg Tablets**

M. VEHABOVIĆ, B. PILIPOVIĆ, E. HADŽOVIĆ, S. KOSTIĆ

PMS36

**Numerical Simulation of Film Formation in Tablet Coating**

G. TOSCHKOFF, D. SUZZI, F. REITER, W. TRITTHART, M. SCHLINGMANN, J. G. KHINAST

PMS37

**Crystallization of APIs in a Continuously Seeded Tubular Crystallizer**

R. J. P. EDER, E. SCHMITT, J. GRILL, M. MAIER, S. INNERHOFER, S. RADL, H. GRUBER-WÖLFER, J. G. KHINAST

PMS38

**Multivariate Image Analysis, Histogram Matching and Statistical Process Control Chart Assisted Nucleation Detection of Pharmaceutical Crystallization processes**

L. L. SIMON, K. ABBOU OUCHERIF, Z. K. NAGY, K. HUNGERBUHLER

PMS39

**Evaluation of Binding Agent's Effect on the Compressibility of Poorly Compactable Drugs**

Z. SÁSKA, J. DREDÁN, E. BALOGH, O. LUHN, I. ANTAL

PMS40

**Simulation of Mixing Processes by Means of Mesh-free Particle Approach**

C. KUSSMANN, P. DRAGE

PMS41

**Continuous Flow Manufacturing for API: From Potential Evaluation to Production Scale Realization**

D. KIRSCHNECK

PMS42

**Optimization of Freeze Drying Process Using Isomalt as Bulking Agent**

K. KOVÁCS, N. KÁLLAI, G. STAMPF, I. KLEBOVICH, K. LUDÁNYI, O. LUHN, I. ANTAL

PMS43

**Micro-Systems Production: A Promising New Technique with Low Energy Consumption**

A. DALMORO, A. A. BARBA, M. D'AMORE, G. LAMBERTI

PNM01

**Liposomal PEG-Free Creams with Herbal Extracts: Stability Study**

I. ARSIĆ, V. TADIĆ, D. RUNJAIĆ-ANTIĆ, S. ĐORĐEVIĆ, I. HOMŠEK

PNM02

**Influence of Carrier Particle Morphology on the Performance of Dry Powder inhalers**  
E. M. LITTRINGER, A. MESCHER, H. SCHRÖTTNER, P. WALZEL, N. A. URBANETZ

PNM03

**Determination of the Membrane-Buffer Partition Coefficient with Laurdan Labeled Liposomes**

G. FÖRST, R. SCHUBERT

PNM04

**Integrin- and IGF1-Receptor-Mediated Liposomal siRNA Delivery to Alveolar Rhabdomyosarcoma Cells**

S. STRIEPE, J. RÖSSLER, R. SÜSS

PNM05

**Fibrin Targeting with Ultrasound Active Antibody-Conjugated Liposomes**

E. E. J. MARXER, J. BRÜSSLER, A. BECKER, C. NIMSKY, U. BAKOWSKY

PNM06

**Freeze-Drying of Melatonin-Loaded Lecithin/Chitosan Nanoparticles**

A. HAFNER, M. DÜRRIGL, J. FILIPOVIĆ-GRČIĆ

PNM07

**Enhanced Imaging of Atherosclerotic Lesions in ApoE-deficient Mice using Nanotechnology**

G. ALMER, K. WERNIG, M. SABA-LEPEK, S. HAJ-YAHYA, J. KELLNER, J. RATTENBERGER, A. GRIES, R. PRASSL, A. ZIMMER, H. MANGGE

PNM08

**Permeability Studies on the Ocular Absorbance of Nanostructured Materials Across the Cornea**

S. BLASS, B. TEUBL, E. FRÖHLICH, C. MEINDL, D. F. RABENSTEINER, G. TRUMMER, O. SCHMUT, A. ZIMMER, E. ROBLEGG

PNM09

**The Comparison of Methods to Assess *In Vitro* Drug Release from Nanoparticles**

P. A. GRABNAR, J. KERČ, M. HOMAR, J. KRISTL

PNM10

**Ketoprofen Loaded Poly(D,L-lactic acid) Nanospheres for Potential Transdermal/Dermal Application: Preparation and Physical Characterization**

S. T. VUČEN, G. VULETA, N. IGNJATOVIĆ, D. USKOKOVIĆ

PNM11

**Polyglycerol Fatty Acid Ester Based Lipid Nanoparticles: Physical Stability and Crystalline Status**

A. KOVACEVIC, S. SAVIC, J. MILIC, R. H. MÜLLER, C. M. KECK

PNM12

**Distinct Trafficking of Solid Lipid Nanoparticles within Cells**

J. KRISTL, K. TESKAČ, S. PAJK, S. PEČAR

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**Effects of Mixing Mode on the Formation of Silica Nanoparticles Synthesized via Aqueous Sol-Gel Process**

T. ANDREANI, A. L. R. SOUZA A. M. SILVA, C. L. MARTINS, E. B. SOUTO

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**Itraconazol-Loaded Nanostructured Lipid Carriers (NLC) for Pulmonary Application**

J. PARDEIKE, S. WEBER, H. P. ZARFL, A. ZIMMER

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**Spray Drying as a Novel Method for Producing Nanoparticles Intended for the Application in DPI's**

S. SCHNEPFLEITNER, N. A. URBANETZ

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**Protamine Based siRNA-Nanoparticles: Particle Composition Dependant Influences on RNA Interference Efficiency**

D. REISCHL, E. JANTSCHER-KRENN, E. BERNHART, W. SATTLER, A. ZIMMER

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**Polyacrylic Acid-Protamine Nanoparticles for Scale-Up Experiments in a Microreactor**

C. PETSCHECHER, A. EITZLMAYR, S. RADL, D. SUZZI, J. G. KHINAST, A. ZIMMER

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**In Vitro Sonothrombolysis of Human Blood Clots: Preliminary Results**

B. PETIT, E. GAUD, F. POLLIART, D. COLEVRET, M. SCHNEIDER,  
I. GUILBERT-BRIGGER, F. YAN, F. TRANQUART, E. ALLÉMANN

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**Bioavailability of Dexamethasone from Nonionic Surfactant/Chitosan Micelle System**

I. PEPIĆ, A. HAFNER, J. LOVRIĆ, J. FILIPOVIĆ-GRČIĆ

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**Lecithin Based Pseudoternary Phase Diagrams**

M. GOSENCA, M. GAŠPERLIN

PPAT02

**The Use of Small and Wide Angle X-Ray Scattering (SWAXS) for the Physico-Chemical Characterization of Solid Dispersions**

M. METZLER, A. HODZIC, P. LAGGNER, N. A. URBANETZ

PPAT03

**Qualification of NIR Spectral Imaging for the Pharmaceutical Industry**

J. MOOR, D. M. KOLLER, N. HEIGL, N. BALAK, M. BURGSTALLER,  
P. KERSCHHAGGL, J. G. KHINAST

PPAT04

**Evaluation of API-Distribution and Coating Thickness by NIR Spectroscopy and Raman Chemical Mapping**

G. HÖRL, N. HEIGL, D. M. KOLLER, W. TRITTHART, F. REITER, M. SCHLINGMANN,  
J. G. KHINAST

PPAT05

**Pharmaceutical Powder Compaction and Dissolution Analytics by Laboratory Small and Wide Angle X-Ray Scattering (SWAXS)**

A. HODZIC, M. KRIECHBAUM, W. TRITTHART, F. REITER, S. FRASER, J. G. KHINAST,  
P. LAGGNER

PPAT06

**Kinetic Pathway Analysis of Aggregation of Therapeutic Proteins**

U. ROESSL, J. WIESBAUER, S. LEITGEB, B. NIDETZKY

PPAT07

**Experimental and Mathematical Analysis of Hepatic Uptake**

T. GRANDJEAN, A. LENCH, J. W. T. YATES, M. J. CHAPPELL, C. J. O'DONNELL

PPAT08

**Chemical Structure Role of Cell-Membrane Hydrocarbon Chain in Interactions with Antihypertensive Drugs (SARTANS)**

A. HODZIC, T. MAVROMOUSTAKOS, P. ZOUUMPOULAKIS, M. RAPPOLT, P. LAGGNER,  
G. PABST

PPAT09

**HS-SPME-GCMS Method Development for Sensitive Diisopropylphenol Analysis Suited for Adsorption/Absorption Studies and Cleaning Validations**

K. E. PICKL, V. ADAMEK, R. GORGES, F. M. SINNEN

PPAT10

**Use of Forced Degradation Studies on S-(-)-Amlodipine Besylate to Generate Information on the Degradation Products**

Š. HADŽIDEDIĆ, A. UZUNOVIĆ, S. PILIPOVIĆ, S. KOCOVA EL-ARINO

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**Quality-by-Design Based Characterization of Pharmaceutical Processes by Means of Numerical Simulations**

S. ADAM, D. SUZZI, S. RADL, G. TOSCHKOFF, C. RADEKE, T. HÖRMANN,  
M. IANNUCCELLI, J. G. KHINAST

PPAT12

**Application of Experimental Design for Screening Study of Dissolution Test Conditions: Levothyroxine Sodium Immediate-Release Tablets**

I. KOCIC, I. HOMSEK, M. DACEVIC

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**In Vitro-In Silico Tools to Identify Biorelevant Dissolution Specifications for the Selected Poorly-Soluble Model Drugs**

S. GRBIC, J. PAROJCIC, Z. DJURIC

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**Tailored Stationary Phases for Continuous Electro-Chromatographic Separation of APIs**

H. GRUBER-WOELFLER, P. W. FEENSTRA, M.-G. BRAUNBRUCK, R. LASKOWSKI, H. J. BART, J. G. KHINAST

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**A Simple High-Throughput Method for Determination of Pregabalin in Pharmaceutical Dosage Forms using a Microplate Fluorescence Reader**

T. VOVK, B. MARTINC, I. GRABNAR

PPAT16

**Evaluation of Sodium Naproxen Hydrated Forms by Isoconversional Analysis**

L. MALAJ, V. MARTENA, A. CORRIDONI, C. BACCHIOCCHI, P. DI MARTINO

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**Multidisciplinary Approach on Characterizing Composites of Vinpocetine and Crospovidone Obtained by Solid State Activation**

D. HASA, D. VOINOVICH, B. PERISSUTTI, A. BONIFACIO, M. GRASSI, E. FRANCESCHINIS, S. DALL'ACQUA, M. SPEH, J. PLAVEC

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**Enzyme-Catalyzed Synthesis of-Azido-2-deoxy-D-glucose under Catalysis by Recombinant Cellobiose Phosphorylase (CeP)**

B. LUBURA, N. GABRA, P. STARKL, H. VIERNSTEIN, F. M. UNGER

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**Characterization of Biomedical Surfaces by Streaming Potential Measurements**

T. LUXBACHER

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**Application of Dynamic Neural Networks and Fuzzy Algorithms in the Modeling of Drug Release**

J. PETROVIĆ, S. IBRIĆ, G. BETZ, Z. ĐURIĆ

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**Innovative Concepts for Personnel Locks in Clean Room Technology**

S. LIEBMINGER, D. SUZZI, S. FRASER, G. SCHINAGL, S. RADL, L. OBERAUNER, M. AICHNER, M. CARDINALE, J. KHINAST, G. BERG

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**Mechanical Influences During Dissolution Testing in a Novel Peristaltic Movement Simulating Stirring Device**

M. BOGATAJ, A. GLAVAČ, N. NAGELJ KOVAČIČ, A. MRHAR

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**Caffeine Nucleation Detection Using a Matrix of External Turbidity Probes: Bulk Video Imaging (BVI)**

L. L. SIMON, Z. K. NAGY, K. HUNGERBUHLER

PPAT24

**Morphologically Directed Raman Spectroscopy as a Novel Tool to Monitor Changes in Particle Size and Shape in Solid Dosage Blends and Formulations**

C. L. LEVOGUER, L. KIDDER, K. HABER

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**Application of <sup>14</sup>N NQR to the Study of Sulfanilamide, Piroxicam, and Nifedipine Polymorphism**

Z. LAVRIČ, J. PIRNAT, J. LUŽNIK, J. SELIGER, V. ŽAGAR, Z. TRONTELJ, S. SRČIČ

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**Protein Characterization in Solution by Small-Angle X-Ray Scattering**

H. SANTNER

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**The Potential of Sucrose Esters to be used as Oral Absorption Enhancers**

L. KIS, A. SZŰTS, N. OTOMO, P. SZABÓ-RÉVÉSZ, M. A. DELI

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**Development of Intermediate Layer with Improved Diffusional Barrier**

M. T. JAKLIČ, R. JUREČIČ

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**A Coupled Kinetic-Dynamic Model Characterising Cell Cycle Response to an Anti-Cancer Agent**

M. I. ATARI, M. J. CHAPPELL, R. J. ERRINGTON, P. J. SMITH, N. D. EVANS

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**Natural Surfactant of Alkyl Polyglucoside Type: A Physicochemical Characterization of a New Mixed Emulsifier**

M. LUKIC, I. JAKSIC, R. DANIELS, G. VULETA, S. SAVIC

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**The Stability of Salmon Calcitonin Against Trypsin, Chymotrypsin and Neutrophil Elastase in Human Lung Epithelial Cells**

L. BAGINSKI, S. T. BUCKLEY, U. BAKOWSKY, C. EHRHARDT

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**Modern Dressings for Wound Healing**

R. ROŠIC, J. KRISTL, S. BAUMGARTNER

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**Defining Carbohydrate Targets on Osteoarthritic Chondrocytes using RT-qPCR and LC-ESI-MS**

S.Q. WU, S. TOEGEL, M. PABST, J. GRASS, C. CHIARI, F. M. UNGER, F. ALTMANN, H. VIERNSTEIN

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**Interactions Of Different Sartans with the Bilayer Interface Studied by Saxs**

M. RAPPOLT, B. SARTORI, A. HODZIC, G. PABST, T. MAVROMOUSTAKOS

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**Density Functional Theory Calculations on Methylated  $\beta$ -Cyclodextrins**

H. VIERNSTEIN, A. KARPFEN, E. LIEDL, W. SNOR, P. WOLSCHANN

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**Impact of Heat Stress on the Cellular Activity and Culturability of Probiotic Microorganisms**

S. SALAR-BEHZADI, S. TOEGEL, M. HOFRICHTER, I. ALTENBURGER, S. STUMMER, M. BASHOLLI, M. WIRTH, F. M. UNGER, H. VIERNSTEIN

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**P-gp Inhibitory Potential of Phospholipids**

S. SIMON, R. SCHUBERT

POT12

**Compartmental Modelling of the Pharmacokinetics of an Efflux Transporter**

T. R. B. GRANDJEAN, J. T. W. YATES, M. J. CHAPPELL