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International Exhibition for R&D

9th World Meeting on Pharmaceuticals, Biopharmaceuticals and Pharmaceutical Technology

Lisbon

Portugal

31 March to 3 April 2014



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Lisbon Portugal

31 March to 3 April 2014

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Research **P**harm
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Social programme

Monday, 31 March 2014

- 18:00** **Welcome reception at the CCL Lisboa Congress Centre**
The Welcome Reception will be held in the exhibition halls of CCL Lisboa Congress Centre. Enjoy a glass of wine while networking with old and new friends.

Wednesday, 02 April 2014

- 20:00** **Dinner Event at the "Convento do Beato"**
The ancient convent, called "Convento do Beato", will be the location for the Dinner Event on Wednesday 02 April 2014.

Important information for the Dinner Event

Bus shuttle to the "Convento do Beato" starts at 19:00 from Marquês de Pombal place in the old city centre. Please be on time. There is also a shuttle provided back to the Marquês de Pombal place after the Dinner Event. Check the info boards at the registration desk for an information update.

Opening hours: business office and registration desk

Monday	31 March 2014	10:00 to 17:00
Tuesday	01 April 2014	8:00 to 17:00
Wednesday	02 April 2014	8:00 to 17:00
Thursday	03 April 2014	8:00 to 17:00

Auditorium I

13:00 Opening ceremony and welcome address

Dr. Paulo Macedo, Minister of Health
Prof. Dr. Rogério Gaspar, Vice-Rector University of Lisbon
Prof. Dr. Matilde Fonseca Castro, Dean of the Faculty of Pharmacy, University of Lisbon
Dr. Fernando Medina, Deputy Mayor of Lisbon
Dr. Nuno Moreira, President of the College of Industry
Prof. Dr. Jörg Breitzkreutz, President of APV
Prof. Dr. Franco Alhaique, President of A.D.R.I.T.E.L.F.
Prof. Dr. Jürgen Siepmann, President of APGI
Prof. Dr. João F. Pinto, Chair of the Conference, Faculty of Pharmacy, University of Lisbon

14:30 Keynote lectures

Chair: J. F. Pinto

Horizon 2020 - The European research funding programme
Maria da Graça Carvalho, European Commission, Belgium

Pharmaceutical Industry in Portugal
Guy Villax, Hovione, Portugal

15:30 Coffee break

16:00 Hot Topic Session

Chairs: J. Breitzkreutz/J. Siepmann

Drug counterfeiting
Frédéric Bourgeois, Sanofi, France

Opportunities and challenges in strategical outsourcing
Hans Lindner, Bayer Pharma, Germany
and Jean Cuine, NextPharma, United Kingdom

18:00 Welcome Reception

Auditorium I

09:00 Symposium: Solid Dosage Forms

Chair: H. Lindner/F. Richter

09:00 Oral controlled drug delivery

Christian von Corswant, Astra Zeneca AB, Mölndal, Sweden

09:40 Advances in controlled drug delivery from an academic perspective

Ruggero Bettini, University of Parma, Parma, Italy

10:20 Biopharmaceutical performance assessment of solid dosage forms

Xavier Pepin, Sanofi, Vitry-sur-Seine, France

11:00 Coffee break

Poster sessions and exhibition ResearchPharm®

11:30 APV Awards (Auditorium I) kindly sponsored by



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11:45 Plenary lecture (Auditorium I)

Chair: F. Alhaique

Nanomedicines

Alexander "Sasha" Kabanov, University of North Carolina, Chapel Hill, USA

12:45 Lunch break

Poster sessions and exhibition ResearchPharm®



15:00 Symposium: Coated Dosage Forms

Chairs: A. Rajabi-Siahboomi/C. Schmidt

15:00 QbD and PAT tools for film coating

Adrian Funke, Bayer Pharma, Berlin, Germany

15:40 GIT Delivery

Abdul Basit, University of London, London, United Kingdom

16:20 Coating of solid dosage forms

Christoph Riedel, Bosch Hüttlin, Schopfheim, Germany

17:00 End of session

Auditorium VI

09:00 Short lectures: Protein & Nucleotide Formulations

Chair: G. Winter

09:00 Physicochemical and biological studies of cationic nanoemulsions as delivery systems for antimalarial oligonucleotides

F. Bruxel, S. Cojean, J. Vilela, A. Bochot, Â. Malachias, R. Magalhães-Paniago, M. Oliveira, P. Loiseau, E. Fattal and H. Teixeira

09:20 Accelerated Formulation Studies for Frozen Storage of Proteins

M. Rosa, C. Lopes, E. Melo, S. Singh and M. Rodrigues

09:40 Controlled nucleation combined with aggressive freeze-drying of highly concentrated protein formulations

I. Konrad, R. Geidobler, A. Freitag, A. Hawe and G. Winter

10:00 MicroScale Thermophoresis (MST) for mAb Development and Formulation

R. Wanner, S. Dühr, P. Baaske and G. Winter

10:20 Chitosan-based nanogels for the cellular delivery of nucleotides and nucleotide analogues

H. Hillaireau, G. Giacalone, A. Bochot and E. Fattal

10:40 COMPARISON OF THREE NANOVACCINE FORMULATIONS FOR THEIR POTENTIAL TO INDUCE AND ENHANCE IMMUNE RESPONSES AGAINST M. TUBERCULOSIS

J. Poechem, C. Barnier Quer, R. Doucet Ladeveze, N. Collin and G. Borchard

11:00 Coffee break

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11:45 Plenary lecture (Auditorium I)

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Auditorium VI

15:00 Short lectures: Pharmacokinetics & IVIV Correlations

Chairs: K. Wagner/M. Weigandt

15:00 Studying distribution and absorption processes after intramuscular injection using LC-MS/MS and MRI

M. Probst, J. Kühn, E. Scheuch, S. Oswald, W. Siegmund, A. Seidlitz and W. Weitschies

15:20 Delivering crushed tablets using thickened fluids: salivary paracetamol concentrations indicate an effect on absorption

C. Radhakrishnan, L. M Nissen, J. A Y Cichero and K. J Steadman

- 15:40 **Intragastric volume and fat content changes after intake of high-caloric, high-fat breakfast in healthy human subjects investigated by MRI**
M. Koziolok, M. Grimm, G. Garbacz, J. Kühn and W. Weitschies
- 16:00 **Zein nanoparticles as carriers for the oral bioavailability of resveratrol**
R. Peñalva, I. Esparza, J. Huarte, E. Rincón and J. Irache
- 16:20 **Per-oral itraconazole nanocrystal formulations: superior in vitro dissolution not fully reflected to bioavailability**
A. Sarnes, M. Kovalainen, M. R. Häkkinen, T. Laaksonen, J. Laru, J. Ilkka, K. Järvinen, S. Rönkkö, J. Hirvonen and L. Peltonen
- 16:40 **SMART WAYS TO OVERCOME THE SOLUBILITY HURDLE AND REDUCE TIME TO MARKET: ENABLING FORMULATION TECHNOLOGIES AND IN-VITRO/IN-VIVO CASE STUDIES**
R. Angi, T. Solymosi, Z. Ötvös, B. Kárpáty, H. Glavinas and G. Filipcsei
- 17:00 **End of session**

Auditorium VII

09:00 Symposium: Advanced Analytics

Chairs: P. Vazquez/W. Weitschies

- 09:00 **Advanced synchrotron-based imaging techniques to support the formulation, manufacturing processes and evaluation of drug effects**
Jean Doucet, CNRS - Centre national de la recherche scientifique, Paris, France

- 09:40 **In vivo imaging techniques**
Clive Wilson, University Strathclyde, Glasgow, United Kingdom

- 10:20 **Scanning white light interferometry (SWLI)**
Niklas Sandler, Åbo Akademi University, Turku, Finland

- 11:00 **Coffee break**
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- 11:30 **APV Awards (Auditorium I) kindly sponsored by**



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- 11:45 **Plenary lecture (Auditorium I)**

Chair: F. Alhaique

Nanomedicines

Alexander "Sasha" Kabanov, University of North Carolina, Chapel Hill, USA

- 12:45 **Lunch break**
Poster sessions and exhibition ResearchPharm®

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15:00 Symposium: Protein Formulation & Aggregation

Chairs: G. Borchard/A. Rummelt

- 15:00 **Freeze-drying of proteins: Quality by Design (QbD) in formulation and process design**
Michael Pikal, University of Connecticut, Storrs, USA

- 15:40 **Formulation development of new anti-body scaffolds**
Sylvain Huille, Sanofi, Vitry-sur-Seine, France
- 16:20 **Vaccine Design: Lyophilization and delivery**
Jean-Pierre Amorij, Institute for Translational Vaccinology, Bilthoven, The Netherlands
- 17:00 **End of session**

Auditorium VIII

09:00 Short lectures: Dermal and Transdermal Delivery

Chair: to be announced

- 09:00 **New insights into establishment and analysis of an improved human in vitro wound model**
V. Planz and M. Windbergs
- 09:20 **Ex vivo and in vivo evaluation of the efficiency of calixarene formulations for the treatment of superficial wounds contaminated by uranium**
S. Grivès, G. Phan, D. Suhard, F. Rebière and E. Fattal
- 09:40 **Tactile perception of topical formulation**
L. Ringstad, L. Skedung, I. Burazewska-Norin, H. Widén and C. Öhgren
- 10:00 **Mometasone Furoate - loaded cold processed oil-in-water emulsions: in vitro and in vivo studies**
S. Raposo, R. Tavares, J. Marto, L. Gonçalves, S. Simões, M. Urbano and H. Ribeiro Oliveira Figueira
- 10:20 **Ultrasmall NLC – improved dermal delivery of coenzyme Q10**
N. Baisaeng, R. Müller and C. Keck
- 10:40 **Characterization and in vitro skin penetration study of nicotinamide microemulsion**
P. Boonme, C. Boonthongchuay, T. Amnuakit and W. Wongpoowarak
- 11:00 **Coffee break**
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- 11:30 **APV Awards (Auditorium I) kindly sponsored by**



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- 11:45 **Plenary lecture (Auditorium I)**

Chair: F. Alhaique

Nanomedicines

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- 12:45 **Lunch break**
Poster sessions and exhibition ResearchPharm®



15:00 Short lectures: Liposomes & other advanced DDS

Chair: A. Fahr/Y. Perrie

- 15:00 **Liposomal post-insertion features of HA-DPPE conjugate**
D. Cosco, N. Tsapis, T. Nascimento, S. Arpicco, M. Fresta, D. Chapron, M. Taverna and E. Fattal

- 15:20 Microcontainers, an innovative oral drug delivery system for poorly soluble drugs**
L. Hagner Nielsen, J. Nagstrup, S. Sylvest Keller, S. Gordon, J. Østergaard, T. Rades,
A. Boisen and A. Müllertz
- 15:40 Cross-linked chitosan/liposome hybrid systems for colon-targeted delivery of quercetin**
C. Caddeo, M. Manconi, M. Manca, D. Valenti and A. Fadda
- 16:00 Multimodal Theranostics of Tumoral Cells with Hybrid Nanoparticles**
P. Taboada, A. Topete, P. Iglesias, J. Costoya, S. Barbosa and V. Mosquera
- 16:20 How to develop a Self-Emulsifying Lipid Formulation for BCS class II drugs?**
V. Jannin, S. Chevrier, Y. Chavant, C. Voutsinas and F. Demarne
- 16:40 Polysaccharide Nanohydrogels as Drug Carriers**
P. Matricardi, C. Di Meo, G. D Arrigo, E. Montanari, T. Coviello and F. Alhaique
- 17:00 End of session**

Auditorium I

09:00 Symposium: Drug Nanoparticles & Vesicles

Chair: J. Kreuter

09:00 Liposomal drug delivery systems: From concept to clinical applications

Yvonne Perrie, Aston University, Birmingham, United Kingdom

09:40 Nanosuspension technology: A versatile drug delivery platform

Roberta Cavalli, University of Turin, Turin, Italy

10:20 Nanoparticle design and drug delivery

Paula Hammond, MIT Massachusetts Institute of Technology, Cambridge, USA

11:00 Coffee break

Poster sessions and exhibition ResearchPharm®



11:30 EJPB Awards

11:45 Plenary lecture

Chair: J. Breitkreutz

Personalized Medicine – Facts and Fiction

Susanne Arbogast, Roche, Penzberg, Germany

12:45 Lunch break

Poster sessions and exhibition ResearchPharm®



15:00 Symposium: Tissue Engineering & ATMP

Chairs: G. Cavallaro/A. Göpferich

15:00 Development and manufacturing of Advanced Therapy Medicinal Products (ATMP)

Maria Luisa Nolli, Areta International, Gerenzano, Italy

15:40 Recent advances in tissue engineering

Rui L. Reis, University of Minho, Braga, Portugal

16:20 Biomaterials as Therapeutic Cancer Vaccines

David J. Mooney, Harvard School of Engineering and Applied Sciences, Cambridge, USA

17:00 End of session

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Auditorium VI

09:00 Symposium: Continuous Manufacturing

Chairs: E. Stoyanov/K. Wening

09:00 Continuous wet granulation process including QbD & PAT

Martin Wunderlich, F.Hoffmann-La Roche, Basle, Switzerland

09:40 Melt Extrusion Technology: Case studies

Michael A. Repka, University of Mississippi, Jackson, USA

10:20 Comminutive Granulation – Continuous Manufacturing of Hot-Melt-Extruded Pellets

Reinhardt K. Mürb, Automatik Plastics Machinery, Großostheim, Germany

11:00 Coffee break

Poster sessions and exhibition ResearchPharm®



11:30 EIPB Awards

11:45 Plenary lecture

Chair: J. Breitkreutz

Personalized Medicine – Facts and Fiction

Susanne Arbogast, Roche, Penzberg, Germany

12:45 Lunch break

Poster sessions and exhibition ResearchPharm®



15:00 Short lectures: Preformulation & Physical Pharmaceutics

Chairs: R. Jachowicz/M. Rabiskova

15:00 Prediction of physical stability of amorphous drugs from molecular mobility studies

M. Paluch, K. Kolodziejczyk, K. Grzybowska and Z. Wojnarowska

15:20 Nanoformulated itraconazole prepared by various spinning methods

Z. Nagy, A. Balogh, H. Pataki, K. Molnar, G. Marosi, G. Verreck and M. Brewster

15:40 ToF-SIMS analysis of hydrolysed acetyl salicylic acid printed as a microarray using ink-jet printing

M. Algahtani, D. Scurr, J. Burley, M. Alexander and M. Davies

16:00 General understanding of physical stability of pharmaceutical glasses

K. Kawakami, T. Harada, Y. Yoshihashi, E. Yonemochi, K. Terada and K. Miura

- 16:20 **Highly tortuous scaffolds produced using vacuum-induced directional freezing**
S. Wiedemann, T. Fey, P. Greil and G. Lee
- 16:40 **The truncated sphere model with Voronoi extension enables simulations of confined powder compression at large strains**
A. Persson and G. Frenning
- 17:00 **End of session**
- 20:00 **Dinner Event at the “Convento do Beato”**

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Auditorium VII

09:00 Symposium: Patient-centred Medicines

Chairs: K. Bartscher/M. Sznitowska

- 09:00 **New guideline “Quality of paediatric medicines”: Scientific evidence, key aspects and lessons learned**
Diana van Riet-Nahles, National Institute for Public Health and the Environment (RIVM), Bilthoven, The Netherlands

- 09:40 **Patient-centric drug formulation principles**
Robert Becker, Aptalis Pharma, Pessano, Italy

- 10:20 **Formulation and packaging considerations in geriatric medicines**
Trevor Shreeves, Glaxosmithkline Research & Devel, Harlow, United Kingdom

- 11:00 **Coffee break**
Poster sessions and exhibition ResearchPharm®

- 11:30 **EJPB Awards**

- 11:45 **Plenary lecture**

Chair: J. Breitkreutz

Personalized Medicine – Facts and Fiction
Susanne Arbogast, Roche, Penzberg, Germany

- 12:45 **Lunch break**
Poster sessions and exhibition ResearchPharm®

15:00 Symposium: Green & Sustainable Pharma

Chairs: J. Amela/D. Lubda

- 15:00 **Developing bio- and chemo-catalytic technology for API synthesis**
John Whittall, University of Manchester, Manchester, United Kingdom

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- 15:40 **Industry case study: Energy and resource saving pharmaceutical manufacturing**
Herbert Krasowski, Valecon Management Consulting, Neu-Ulm, Germany
- 16:20 **Green nanotechnology – A sustainable source towards the generation of new biopharmaceuticals**
Kattesh V. Katti, University of Missouri, Columbia, USA
- 17:00 **End of session**
- 20:00 **Dinner Event at the “Convento do Beato”**

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Auditorium VIII

09:00 Short lectures: Controlled Drug Delivery

Chair: R. Cazes

- 09:00 **Novel polysaccharide-based drug delivery systems targeting the inflamed colon: Proof of concept in vivo**
Y. Karrouit, L. Dubuquoy, C. Piveteau, F. Siepmann, T. Beghyn, C. Neut, M. Flament, L. Dubreuil, B. Deprez and J. Siepmann
- 09:20 **Development of Sustained and Pulsatile Release Co -Extrusion Formulations for Individual Dosing**
E. Laukamp, A. Vynckier, M. Thommes and J. Breitzkreutz
- 09:40 **Laminar co-extrudates manufactured at room temperature and in the absence of solvents for the delivery of drugs at different release rates**
G. Oliveira, M. Wahl and J. Pinto
- 10:00 **GABAPENTIN AND FLURBIPROFEN FIXED-DOSE COMBINATION PRODUCT: IN VITRO AND IN VIVO DRUG RELEASE STUDIES**
A. Rossi, G. Pasotti, R. Bettini, M. Barchielli and P. Colombo
- 10:20 **Double hydrophilic block copolymer based-micelles as vectors to engineer tolerogenic dendritic cells**
N. Mebarek, A. Aubert-Pouëssel, J. Devoisselle, S. Bégu, R. Vicente, C. Jorgensen and P. Louis-Plence
- 10:40 **Oil-cyclodextrin based beads for oral delivery of poorly-soluble drugs**
A. Bochoť, E. Fattal and M. Hamoudi
- 11:00 **Coffee break**
Poster sessions and exhibition ResearchPharm®
- 11:30 **EJPB Awards**

11:45 Plenary lecture

Chair: J. Breitzkreutz

Personalized Medicine – Facts and Fiction
Susanne Arbogast, Roche, Penzberg, Germany

12:45 Lunch break

Poster sessions and exhibition ResearchPharm®

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15:00 Short lectures: Advanced Analytics

Chair: S. Klein

15:00 Statistical process monitoring of a continuous pharmaceutical twin screw granulation and drying process

A. Tavares da Silva, J. Vercruysse, P. Cappuyns, J. Almeida Lopes, V. Chris, R. Jean Paul and T. De Beer

15:20 Correlation between in-line Raman spectroscopy and spatial filtering velocimetry for particle size evaluation in fluidized bed coating processes

F. Foltmann, K. Knop, P. Kleinebudde and M. Pein

15:40 Prediction of the influence of supersaturation and precipitation on in-vivo absorption of a weak base – application of a biphasic dissolution model

K. Frank, K. Locher and K. Wagner

16:00 Noninvasive in vivo Monitoring of in situ implants by ESR, multispectral optical Imaging and BT-NMR

K. Mäder, S. Kempe, A. Schädlich and H. Metz

16:20 PAT application in formulation technologies

H. Pataki, Z. Nagy and G. Marosi

16:40 Coherent anti-Stokes Raman scattering (CARS) microscopy providing in depth imaging of drug loaded mesoporous MCM-41 silica

A. Fussell, M. Mah, H. Offerhaus, S. Niemi, J. Salonen, H. Santos and C. Strachan

17:00 End of session

20:00 Dinner Event at the “Convento do Beato”

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Auditorium I

09:00 Short lectures: Nanoparticles

Chair: E. Fattal

- 09:00 Tumor delivery performance study of lipid nanocapsules through FRET imaging**
A. Lainé, M. Henry, J. Béjaud, J. Coll, J. Benoit and C. Passirani
- 09:20 PEGylation of non-spherical particles and its influence on phagocytosis**
R. Mathaes, A. Besheer, J. Engert and G. Winter
- 09:40 PASSIVE, ACTIVE AND MAGNETIC TARGETING OF MULTIFUNCTIONAL NANOPARTICLES FOR THERANOSTIC APPLICATIONS**
N. Schleich
- 10:00 Dapivirine-loaded polymeric nanoparticles for the prevention of vaginal HIV transmission**
J. das Neves, M. Amiji, B. Sarmiento and M. Bahia
- 10:20 Successful delivery of itraconazole loaded poly(butylcyanoacrylate) nanospheres into the brain**
A. Curic, R. Reul, J. Möschwitzer and G. Fricker
- 10:40 Anti-Abeta antibody decorated nanoparticles correct memory defect in Alzheimer's disease animal model**
D. Carradori, D. Brambilla, B. Le Droumaguet, J. Nicolas, O. Flores, C. Balducci, G. Forloni, M. Masserini, P. Couvreur and K. Andrieux
- 11:00 Coffee break**
Poster sessions and exhibition ResearchPharm®
- 11:30 JDDST Awards (Auditorium I)**

11:45 Plenary lecture (Auditorium I)

Chair: J. Siepmann

Maurice Marie Janot Award lecture

Overcoming drug biological barriers: from the cell membrane to the mucosa

Maria José Alonso, University of Santiago de Compostela, Santiago de Compostela, Spain

- 12:45 Lunch break**
Poster sessions and exhibition ResearchPharm®

15:00 Short lectures: Oral Drug Delivery

Chair: to be announced

- 15:00 Taste-masked ibuprofen micropellets using an innovative spouted bed continuous pelletizing technology**
M. Guhmann, M. Preis, F. Gerber, N. Pöllinger, J. Breitzkreutz and W. Weitschies
- 15:20 A new class of polymers to produce high-dosed sustained-release oral drug formulations via hot melt extrusion: Polyurethanes**
B. Claeys, X. Hillewaere, F. Du Prez, L. Saerens, T. Debeer, A. Vervaeck, J. Remon and C. Vervaet
- 15:40 Evaluation of injection molding for the manufacturing of immediate release (IR) tablets**
A. Melocchi, L. Zema, G. Loreti, A. Maroni, L. Palugan and A. Gazzaniga
- 16:00 Prilling as Manufacturing Technique for Lipid/PEG Multiparticulates for Fixed-Dose Combinations**
A. Vervaeck, T. Monteyne, L. Saerens, T. De Beer, J. Remon and C. Vervaet
- 16:20 Hard fat as binder for child-appropriate, taste improved minitables**
C. Eckert, M. Pein and J. Breitzkreutz
- 16:40 Childrens' preferences for tablets based on size, shape and colour**
H. Batchelor, J. Marriott, R. Venables, H. Stirling, R. Isaac, K. Hughes and C. Miller
- 17:00 End of meeting**

Auditorium VI

09:00 Short lectures: Site-specific drug delivery

Chair: E. Roblegg

- 09:00 Advantages of a novel water-soluble Cyclosporine A prodrug for ocular application: Improved availability and reduced side effects**
M. Rodriguez-Aller, D. Guilleme, J. Veuthey and R. Gurny
- 09:20 Direct nose-to-brain delivery of carbamazepine after intranasal administration to mice**
A. Serralheiro, G. Alves, A. Fortuna and A. Falcão
- 09:40 Lung deposition pattern of a spray-dried powder in live mice using the Penn-Century™ DP-4M Insufflator**
W. Tonnies, A. de Boer, J. Sjollem, H. Frijlink and W. Hinrichs
- 10:00 pH-responsive Mannan-modified P(HEMA-co-MAA) Nano-hydrogel Carriers for Oral Vaccine Delivery**
M. Durán-Lobato, B. Carrillo-Conde, Y. Khairandish and N. Peppas
- 10:20 Pharmacokinetic and pharmacodynamic study of Paclitaxel-loaded lipid nanocapsules after iv and oral administration in rats, on Taxol® resistant tumor**
A. Groo, M. Bossière, L. Trichard, P. Legras, J. Benoit and F. Lagarce
- 10:40 A new dissolution method for orodispersible films and minitables**
R. Krampe, D. Sieber, M. Pein, P. Kleinebudde and J. Breitzkreutz
- 11:00 Coffee break**
Poster sessions and exhibition ResearchPharm®
- 11:30 JDDST Awards (Auditorium I)**

11:45 Plenary lecture (Auditorium I)

Chair: J. Siepmann

Maurice Marie Janot Award lecture

Overcoming drug biological barriers: from the cell membrane to the mucosa

Maria José Alonso, University of Santiago de Compostela, Santiago de Compostela, Spain

12:45 Lunch break

Poster sessions and exhibition ResearchPharm®

ResearchPharm
International Exhibition for R&D

15:00 Short lectures: Pharmaceutical Engineering & Green Manufacturing

Chair: to be announced

15:00 A user-friendly model for spray drying to aid pharmaceutical product development

N. Grasmeijer, H. de Waard, W. L.J. Hinrichs and H. W. Frijlink

15:20 Critical evaluation of root causes of the reduced compactability after roll compaction/dry granulation

J. Mosig and P. Kleinebudde

15:40 Development of a Continuous Wet Granulation Process by Understanding Granule Properties

A. Birkmire

16:00 Improving the uniformity of an active coating process by DEM simulations and experimental data

G. Toschkoff, S. Just, K. Knop, P. Kleinebudde, A. Funke, D. Djuric, G. Scharrer and J. Khinast

16:20 Green re-design of API production supported by Life Cycle Assessment

D. Kralisch, D. Ott, Y. Laribi, P. Perrichon and P. Loeb

16:40 Ecological Assessment of Pharmaceutical Production Processes in Multi Product Plants

M. Wesche, M. Kohnke, M. Häberl and S. Scholl

17:00 End of meeting

Auditorium VII

09:00 Symposium: Generics & Biosimilars

Chair: W. Frieß

09:00 Branded generics in emerging markets

Joaquim Figueiredo, Abbott Products Operations, Allschwil, Switzerland

09:40 Biosimilars, an opportunity and a challenge for the generic's industry

Julio Maset, Laboratories Cinfa, Olloki, Spain

10:20 Biosimilars or Biobetters? Lessons learned from the filgrastim portfolio

Herrmann Allgaier, Merckle Biotec, Ulm, Germany

11:00 Coffee break

Poster sessions and exhibition ResearchPharm®

ResearchPharm
International Exhibition for R&D

11:30 JDDST Awards (Auditorium I)

11:45 Plenary lecture (Auditorium I)

Chair: J. Siepmann

Maurice Marie Janot Award lecture

Overcoming drug biological barriers: from the cell membrane to the mucosa

Maria José Alonso, University of Santiago de Compostela, Santiago de Compostela, Spain

12:45 Lunch break

Poster sessions and exhibition ResearchPharm®

15:00 Symposium: Skin, Nose & Lung Delivery

Chair to be announced

15:00 Drug delivery into and through the skin

Richard Guy, University of Bath, Bath, United Kingdom

15:40 Advances in pulmonary drug delivery

Karim Amighi, University of Brussels, Brussels, Belgium

16:20 Advances in intranasal drug delivery

Speaker to be confirmed

17:00 End of meeting

Auditorium VIII

09:00 Symposium: Pharmaceutical Engineering

09:00 The role of pharmaceutical engineering in product development

Jean-René Authelin, Sanofi, Vitry-sur-Seine, France

09:40 Planning and construction of a new plant for parenterals

Andreas Graser, F.Hoffmann-La Roche, Basle, Switzerland

10:20 From sciences to biopharmaceutical manufacturing

David Estape, M+W Germany, Stuttgart, Germany

11:00 Coffee break

Poster sessions and exhibition ResearchPharm®

11:30 JDDST Awards (Auditorium I)

11:45 Plenary lecture (Auditorium I)

Chair: J. Siepmann

Maurice Marie Janot Award lecture

Overcoming drug biological barriers: from the cell membrane to the mucosa

Maria José Alonso, University of Santiago de Compostela, Santiago de Compostela, Spain

12:45 Lunch break

Poster sessions and exhibition ResearchPharm®

15:00 Symposium: Poorly Soluble Drugs

Chairs: M. Brewster/K. Holm

15:00 Intestinal absorption studies (in vitro - ex vivo - in situ)

Patrick Augustijns, University of Leuven, Leuven, Belgium

15:40 Cyclodextrins

Thorsteinn Loftsson, University of Reykjavik, Reykjavik, Iceland

16:20 Nanocrystals

Jan Möschwitzer, Nextpharma GmbH, Berlin, Germany

17:00 End of meeting

Posters

Tuesday, 01 April 2014

Posters

Exhibited continuously from 9:00 to 17:00, with special sessions from 12:45 to 15:00.

The number indicates the number displayed on the poster panel.

Nanoparticles: Lipid nanocarriers

- 1 **Enhanced in vitro antileukemic activity of all-trans retinoic acid-loaded solid lipid nanoparticles**
G. Carneiro, E. Luiz Silva, C. dos Santos Giuberti, D. Assis Gomes, M. Cristina de Oliveira and L. Antônio Miranda Ferreira
- 2 **Calorimetric studies of lipid effects on bemotrizinol loading into nanostructured lipid carriers (NLC)**
L. Montenegro, M. Sarpietro, M. Accolla, R. Cavallo, G. Puglisi and F. Castelli
- 3 **LOWERING OF INTRAOCULAR PRESSURE BY MELATONIN LOADED IN CATIONIC SOLID LIPID NANOPARTICLES**
A. Leonardi, C. Bucolo, S. Salomone, F. Drago, G. Puglisi and R. Pignatello
- 4 **Lipid nanoparticle inclusion prevents capsaicin-induced TRPV1 defunctionalization**
C. Puglia, M. Zammataro, A. Offerta, T. Musumeci, B. Ruozi, G. Puglisi, F. Bonina and S. Chiechio
- 5 **Design of solid lipid nanoparticles for caffeine topical administration**
C. Puglia, A. Offerta, G. Puglisi and F. Bonina
- 6 **ANTI-ALZHEIMER CODRUG LOADED IN SOLID LIPID NANOPARTICLES**
L. Marinelli, P. Sozio, L. Cerasa, H. Turkez and A. Di Stefano
- 7 **NANOSTRUCTURED LIPID CARRIERS AS A STRATEGY TO IMPROVE IN VITRO SCHISTOSOMIASIS ACTIVITY OF PRAZICWANTEL**
F. Kolenyak-Santos, R. Nunes de Oliveira, A. Ribeiro de Souza, S. Marques Allegretti, M. Chaud and M. Daflon Gremião
- 8 **Asymmetrical flow field-flow fractionation in combination with inline-coupled dynamic light scattering techniques for analysis of PEGylation**
C. John and K. Langer
- 9 **Effect of autoclaving on the properties of lipid nanodispersions: A flow field-flow fractionation study**
A. Arnold, K. Göke, E. Roese, H. Bunjes and J. Kuntsche
- 10 **Composition dependent toxicity of lipid nanocapsules in A549 alveolar epithelial cells**
A. Umerska and P. Saulnier

- 11 **Sugar esters for the formulation of lipid nanoparticles**
A. Kovacevic, R. Muller, S. Savic, G. Vuleta, J. Milic and C. Keck
- 12 **Argan oil loaded nanostructured lipid carriers (NLC) for improve skin hydration**
A. Silva, D. Tichota, P. Lobão, J. Sousa Lobo and M. Amaral
- 13 **Aromatic and terpenic compounds loaded in lipidic nanocapsules against multi-drug resistant *Acinetobacter baumannii***
A. Montagu, P. Saulnier, V. Cassissa, E. Rossines, M. Eveillard and M. Joly-Guillou
- 14 **Chitosan-coated solid lipid nanoparticles: Mucoadhesive properties**
A. da Cunha Depaoli, K. Rotolo Mussarelli, M. Cardoso Garcia, F. Chiva Carvalho and M. Scarpa
- 15 **In vitro safety profile of cationic solid lipid nanoparticles**
S. Doktorovova, P. Martins-Lopes, E. B. Souto and A. M. Silva
- 16 **Methotrexate loaded SLN obtained by coacervation for potential glioblastoma treatment**
L. Battaglia, M. Gallarate, E. Peira, D. Chirio, L. Gastaldi, E. Muntoni, E. Biasibetti, M. Capucchio, A. Valazza and o.
- 17 **DEVELOPMENT OF SOLID LIPID NANOPARTICLES FOR TOPIC RELEASE OF FLAVONOID DERIVING FROM MILK THISTLE**
G. SPADA, E. GAVINI, G. RASSU, M. COSSU and P. GIUNCHEDI
- 18 **Solid lipid nanoparticles for prolonged oral delivery of glibenclamide**
L. Gonçalves, A. Almeida, F. Maestrelli, I. Mattera and P. Mura
- 19 **Understanding lipid-lipid interactions as a tool to develop lipid-based nanoparticles**
A. Pinto Varela, A. Gonçalves da Silva, A. Futerman and L. Silva
- 20 **Development of new lipid nanostructured systems for Benign Prostatic Hyperplasia (BPH) Therapy**
L. Henriques do Amaral, V. Pereira de Sousa and L. Mendes Cabral
- 21 **Structural changes upon autoclaving of poloxamer-stabilized trimyristin nanodispersions**
E. Roese, K. Göke, A. Arnold and H. Bunjes
- 22 **Influence of composition on structural changes upon autoclaving of triglyceride nanodispersions**
K. Göke, E. Roese, A. Arnold and H. Bunjes
- 23 **EVALUATION OF THE POTENTIAL OF SOLID LIPID NANOPARTICLES FOR INCORPORATION OF CURCUMIN IN THE TOPIC TREATMENT OF MELANOMA**
M. Lima González and M. Chorilli
- 24 **Solid Lipid Nanoparticles (SLN) and Nanostructured Lipid Carriers (NLC) for Topical Trans-Resveratrol Delivery**
R. Balansin Rigon, M. Lima González, N. Fachinetti, P. Severino, M. Andrade Santana and M. Chorilli
- 25 **PHYSICOCHEMICAL CHARACTERIZATION OF SOLID LIPID NANOPARTICLE CONTAINING OR NOT PRAZQUANTEL**
F. Kolenyak-Santos, C. Garnero, M. Longhi and M. Daflon Gremião
- 26 **Development and evaluation of solid lipid cationic nanoparticles containing insulin**
J. Hecq, J. Goole and K. Amighi
- 27 **EVALUATION OF THE SAFETY PROFILE OF NANOSTRUCTURED LIPID CARRIERS CONTAINING PRAZQUANTEL USING ERYTHROCYTE HEMOLYSIS AND IN VITRO CYTOTOXICITY**
F. Kolenyak-Santos, M. Chorilli and M. Daflon Gremião

- 28 **Effects of kind and amount of surfactants on physical-chemical properties of cationic SLN for the treatment of hepatocellular carcinoma**
m. bondi, c. botto, a. azzolina, e. amore, e. craparo, g. giammona and m. cervello
- 29 **Development and characterization of cetyl palmitate solid lipid nanoparticles for oral treatment**
K. Mäder and M. Heider
- 30 **Ion pairing with linoleic acid: an approach to improve encapsulation efficiency and antibacterial activity of vancomycin in solid lipid nanoparticles**
R. Kalhapure, C. Mocktar and T. Govender
- 31 **Effect of some formulation variables on physicochemical properties and drug loading of triamcinolone acetonide nanoemulsions**
L. Costa Silva and E. Lemos-Senna
- 32 **A simple methodology to test the fluorescence-labeling stability of a nanocarrier.**
G. Bastiat, C. Pritz, C. Roider, F. Fouchet, E. Lignières, A. Jesacher, R. Glueckert, M. Ritsch-Marte, A. Schrott-Fischer and J. Benoit
- 33 **Development of nanoemulsion containing Punica granatum ethyl acetate fraction and seed oil**
T. Baccarin and E. Lemos Senna
- 34 **Nanoparticles based on sorbitan esters: An alternative to the current paradigm of positively charged non-viral gene delivery systems**
I. Fernández-Piñeiro, A. Pensado, B. Seijo and A. Sánchez
- 35 **Instrumented small scale setup to investigate the process parameters during premix membrane emulsification**
S. Gehrman and H. Bunjes
- 36 **Statistical Factorial Design and Turbiscan® AGS: two valid tools for the optimization of positively charged NLC**
C. Carbone, A. Campisi, T. Musumeci, M. Lauro, R. Bonfanti and G. Puglisi
- 37 **Interactions of iron oxide contrast agents with blood components in vitro and in vivo**
F. Schlenk, S. Werner, F. Bähring, C. Bergemann, J. Clement and D. Fischer
- 38 **SYNTHESIS, CHARACTERIZATION AND CELLULAR INTERNALIZATION OF GRAFTED TSPO LIGAND-AMINO FUNCTIONALIZED SILICA-COATED QUANTUM DOTS INTO GLIOMA CELLS**
R. Iacobazzi, E. Fanizza, V. Laquintana, N. Depalo, M. Striccoli, M. Curri, A. Cutrignelli, A. Lopodota, M. Franco and N. Denora
- 39 **Multivalent ligand-receptor interactions of nanoparticles**
R. Hennig, K. Pollinger, A. Veser, M. Breunig and A. Goepferich
- 40 **SELF-ASSEMBLING NANOPARTICLES CONTAINING ZOLEDRONIC ACID FOR THE TREATMENT OF BRAIN TUMORS**
G. Salzano, M. Porru, S. Zappavigna, A. Luce, C. Leonetti, M. Caraglia and G. De Rosa
- 41 **Is the accumulation of nanocarriers in the ovary a common, but neglected, phenomenon?**
K. Mäder, A. Schädlich, S. Hoffmann, V. Weiss, H. Caysa and T. Mueller
- 42 **Poly(vinyl acetate) nanocapsules as a carrier for lipophilic oxygen sensitive EPR spin probes**
J. Frank, M. Elewa, S. Drescher, M. Albanez Campos, P. Imming and K. Mäder
- 43 **Labeling of ALOOH adjuvant with a contrast agent for magnetic resonance tracking**
K. Thom, G. Gloeckl, S. Nagel and W. Weitschies
- 44 **F-actin filaments and their role in quantum dot uptake**
K. Spielberger, M. Wahl, B. Proksch and L. Danielyan

- 45 **Transport of nanoparticles across the intestinal barrier**
A. Moosmann, J. Klein, C. Kurz, T. Knoll, J. Söbbing, G. Wieland, K. Langer, H. von Briesen and S. Wagner
- 46 **Chitosan levofloxacin-loaded microspheres as a new approach for infections associated to Cystic Fibrosis**
M. Gaspar, W. Couet, J. Olivier, A. Pais and J. Sousa
- 47 **Sodium alginate microspheres containing metformine hydrochloride niosomes**
F. Maestrelli, C. Totini, P. Mura, M. Cózar-Bernal, M. González-Rodríguez and A. Rabasco
- 48 **Development of engineered nanoparticle-containing microparticles for lung targeting**
K. Simkova and B. Joost

Preformulation: Processes

- 50 **Nanocrystals produced by a high speed rotor-stator stirring process**
P. Scholz, A. Arntjen and C. Keck
- 51 **Compounding Hydrocortisone retention enema**
N. Zivanović and M. Ribar
- 52 **Preformulation studies - effect of pH and buffer type on stability of recombinant human Thrombin**
A. Murányi, P. Bartoš, V. Čuláková, E. Tichý, J. Píenková and M. Šabka
- 53 **Evaluation of Tablet Characteristics of Model Efavirenz Tablets in High-Shear Wet Granulation: The Role of the Binder**
B. Avci Tafliloglu, T. Vago, G. Dere, T. Tuglu, Z. Oren, E. Stoyanov and C. Mühlenfeld
- 54 **Preparation and characterization of carbamazepine-poloxamer solid dispersions**
D. Medarevic, K. Kachrimanis, M. Mitric, Z. Djuric and S. Ibric
- 55 **Increasing the biorelevance of simulated intestinal fluids for better predictions of equilibrium solubility in the fasted upper small intestine**
N. Koumandrakis, M. Vertzoni and C. Reppas
- 56 **Water activity in drug design**
M. Queralt, N. Celard, J. Suñe Negre, E. García Montoya and P. Pérez Lozano
- 57 **Application of chemometry to the drug-excipient compatibility study of a new antimalarial therapy by infrared spectroscopy**
T. Guimarães, J. Lima, A. Viçosa, N. Boechat and L. Freitas
- 59 **ANTIMICROBIAL PROPERTIES OF LASER-SPINNING BIOACTIVE GLASS NANOFIBERS ON STATIC CONDITIONS**
E. María Magdalena, D. Trinidad, Q. Félix, P. Juan and L. Mariana
- 60 **Development of a porcine diabetic foot ulcer model for advance therapies efficacy assessment**
D. Celdran, F. Sanchez Margallo, B. Lobato and M. Cancho
- 61 **Compounding cardioplegic solutions in hospital pharmacy**
M. Ribar and N. Zivanović
- 62 **Melt granulation in a high shear mixer using a nozzle for molten lipid binder distribution**
C. Eckert, M. Pein and J. Breitzkreutz
- 63 **Manufacture of uncoated tablets of Broad-spectrum antibiotic**
C. Menendez, P. Moreno, A. Figuera, C. Carrillo and J. Suñe-Negre

- 64 **Solvate formation and stability in pharmaceutical development**
K. Takeddin and L. Fábán
- 65 **Oral films: adhesive properties**
B. Silva, A. Borges, C. Silva, J. Coelho and S. Simões
- 66 **Polymorphic Transition of Rivastigmine Hydrogen Tartrate Form II to Form I via Ball Milling: a monotropic or enantiotropic system?**
M. Amaro, A. Simon, L. Cabral, V. Pereira de Sousa and A. Healy
- 67 **Preformulation of a multiple emulsion as a vehicle for clotrimazole delivery**
J. Suñer, A. Calpena, M. Aroztegui, N. Velazquez, E. Saleh and L. Halbaut
- 68 **Design, Optimization and In vivo Evaluation of Self-nanoemulsifying Drug Delivery System of Rosuvastatin Calcium**
M. Raval, S. Solanki, J. Patel and N. Sheth
- 69 **In silico predictive science to support early development strategies**
P. LIENARD
- 70 **Didanosine-loaded poly(ϵ -caprolactone) microparticles by a electrospray technique**
K. P, G. A and A.
- 71 **Novel Protease Inhibitor-Loaded Nanoparticle-in-Microparticle Delivery System for Sustained Release and Improved Bioavailability in the HIV Therapy**
J. C, P. , M. J, C. and A.

Oral delivery: Tablets & extrusion

- 72 **Preparing oral formulations of carbamazepine using the multifunctional solubilizer Soluplus®**
M. Windorf, T. Cech, P. Hebestreit and K. Mäder
- 73 **Stability issues in ODT formulations due to peroxides**
L. Ohrem, A. Kasselkus and K. Klein
- 74 **DISSOLUTION OF MESALAZINE 800 mg MR TABLETS UNDER STANDARD AND BIORELEVANT TEST CONDITIONS**
G. Garbacz
- 75 **An innovative approach on controlling critical process parameters in solid lipid spheronization**
G. Petrovick and J. Breitzkreutz
- 76 **Comparison of the properties of tablets containing diclofenac sodium or diclofenac sodium-titanate nanotube composite**
T. Sovány, B. Sipos, A. Sági, Z. Kónya, K. Pintye-Hódi and G. Regdon jr.
- 77 **Biorelevant characterisation of new Kollidon SR-based matrix tablets intended for twice daily administration**
J. Moll, T. Cech, T. Agnese, R. Grybos and S. Klein
- 78 **Orodispersible Tablets Containing Taste-Masking Microparticles with Prednisolone**
W. Brniak, R. Jachowicz and K. Sznajder
- 79 **Enteric-soluble capsules prepared by injection molding: preliminary in vivo evaluation**
L. Zema, A. Melocchi, G. Loreti, M. Cerea, E. Macchi and A. Gazzaniga
- 80 **Investigating the impact of particle size of different crospovidone grades on tablet characteristics**
F. Bang and T. Cech

- 81 **Lubricant sensitivity of starch based disintegrants**
O. Häusler, K. Laures and H. Rein
- 82 **Pharmaceutical development of dexketoprofen trometamol tablets**
A. Platero, C. Beltran, R. Pons, R. Sarrate and J. Suñé Negre
- 83 **Influence of orally disintegrating tablet excipients on piroxicam nanocrystal dissolution rate**
F. Lai, E. Pini, F. Corrias, M. Manconi, A. Fadda and C. Sinico
- 84 **SPRAY-DRIED CHITOSAN-MAGNESIUM ALUMINUM SILICATE COMPOSITES FOR USE IN TABLETS**
R. Khlibsuwan and T. Pongjanyakul
- 85 **Formulation and evaluation of placebo orally disintegrating tablets (ODT) based on different sugar alcohol diluents and different super-disintegrants**
A. Aleksovski, S. Suljić, A. Pirić and E. Spaseska Aleksovska
- 86 **Evaluation of new aroma substances for feline minitablet formulation**
J. Hautala, S. Airaksinen, N. Naukkarinen, S. Savolainen, O. Vainio and A. Juppo
- 87 **Formulation of a double-fixed dose combination (2-FDC) solid oral dosage form containing artesunate and mefloquine**
J. Steenekamp, H. van der Watt and A. Kotzé
- 88 **Effect of Tablet Hardness Enhancement by Humidification and Drying Process to ODT prepared with Hydroxypropyl Cellulose Super Fine Powder by DC Method**
N. Kuwada, B. Ehlig, K. Sugisawa and S. Tsue
- 89 **Drug layering with aqueous polymer dispersions for extended release pellets**
M. Zoubari, A. Dashevskiy and R. Bodmeier
- 90 **Characterization and quantification of hydrate formation in wet masses containing olanzapine**
M. C. Paisana, M. A. Wahl and J. F. Pinto
- 91 **Site specific solubility improvement using solid dispersions of HPMC-AS/ HPC SSL – mixtures**
D. Zecevic, R. Meier, R. Daniels and K. Wagner
- 92 **Establishing design space for direct compressed tablets prepared from hot-melt extrudates using DoE and decision tree tools**
B. Vukosavljevic, J. Djuris, P. Kleinebudde and S. Ibric
- 93 **Quality by Design for orodispersible films as pharmacy preparations**
C. Visser, H. Woerdenbag, W. Hinrichs, J. Breitzkreutz and H. Frijlink
- 94 **Hot-Melt Extrusion: Polymer blends with polyvinyl alcohol**
W. De Jaeghere, J. Remon and C. Vervaet
- 95 **Co-extrusion as manufacturing technique for immediate release fixed-dose combinations**
B. Van Snick, L. Dierickx, C. Vervaet and J. Remon
- 96 **DEVELOPMENT OF DOMPERIDONE FAST DISSOLVING TABLETS BY CO-PROCESSED SUPERDISINTEGRANTS**
S. Sharma, N. Sharma and G. Gupta

Controlled drug delivery: Polymers

- 97 **Drug delivery to the inner ear: in-vitro study of intratympanal administered triamcinolone acetonide hydrogels**
E. Engleder, C. Honeder, M. Wirth, C. Arnoldner and F. Gabor

- 98 **Dextran- γ -cyclodextrin microspheres for dexamethasone controlled release in bone regeneration**
A. Lima, A. Puga, C. Alvarez-Lorenzo, A. Concheiro and J. Mano
- 99 **Alginate pellets for the modulated release of ibuprofen**
P. Mannina, L. Segale, L. Giovannelli, S. Muschert, J. Siepmann and F. Pattarino
- 100 **Potential applications of hyaluronic acid/pluronic composite hydrogels for intravitreal controlled release formulations.**
A. Santoveña, C. Monzón, M. Llabrés and J. Fariña
- 101 **Peptide Hydrogels as New Matrices for Controlled Release**
L. JEANNIN, M. BOUSMANE, W. MOUSSA, V. PREAT, K. VANVAREMBERG, L. VANHAECKE, Y. SCHNEIDER and A. JOLY
- 102 **Thermosensitive chitosan/ β -glycerophosphate hydrogel for controlled delivery of alendronate**
M. Zewail, N. Nafee and N. Boraie
- 103 **Stability of the probiotic *Lactobacillus casei* during encapsulation in chitosan-ca-alginate microparticles obtained by spray-drying**
T. Petreska Ivanovska, M. Glavas Dodov, V. Ivanovski, E. Popovski, J. Hadzieva, Z. Kavrakovski, L. Petrushevska-Tozi and K. Mladenovska
- 104 **Formulation and optimization of chitosan-poloxamer based in situ gel for vaginal delivery of propolis**
M. Glavas-Dodov, M. Somonoska-Crcarevska, A. Zafirovska-Gapkovska, N. Geskovski, S. Dimcevska, K. Mladenovska and R. Slaveska-Raicki
- 105 **Directly-compressible hypromellose for controlled release dosage forms**
N. Jakki, H. Narkhede, B. Beissiner, D. Tewari and T. Durig
- 106 **SPRAY DRIED MICROPARTICLES OF CHITOSAN OR ITS THIOLIC DERIVATES FOR CELECOXIB INTRAVESICAL DELIVERY**
A. LOPEDOTA, N. DENORA, A. CUTRIGNELLI, V. LAQUINTANA, R. IACOBazzi, A. LOPALCO and M. FRANCO
- 107 **Chitosan-based hydrogels for camptothecin delivery in colon**
M. Martínez Martínez, G. Rodríguez, M. González Álvarez, I. González Álvarez, M. Bermejo Sanz and A. Corma
- 108 **Beads of gellan gum/pectin: drug release properties**
F. Garavello Prezotti, F. Isadora Boni, B. Stringhetti Ferreira Cury and R. Cesar Evangelista
- 109 **INFLUENCE OF THE INCORPORATION OF DRUGS INTO VARIOUS CHARACTERISTICS OF HYDROGELS CONTAINING DIFFERENT CONCENTRATIONS OF POLOXAMER LF-127**
H. Almeida, M. Amaral, P. Lobão and J. Sousa Lobo
- 110 **Carbamate linkers for controlled protein release from hydrogels**
N. Hammer, F. Brandl, S. Kirchhof and A. Goepferich
- 111 **Controlled Protein Release and Hydrolytic Degradation in Heparin-Containing Hydrogels with Varying Levels of Sulfation**
T. Miller, K. Nathan, T. McDevitt and J. Temenoff
- 112 **Wound dressing based on chitosan films impregnated with silver sulfadiazine**
P. Lanzillotti, P. Picciani, C. Andrade, F. Reynaud and K. Silva
- 113 **SYNTHESIS AND PHYSICOCHEMICAL CHARACTERIZATION OF METRONIDAZOLE-LOADED SIO₂-CaO-P₂O₅/HPC COMPOSITES**
K. Czarnobaj and W. Sawicki

- 114 **Montmorillonite/chitosan nanocomposites as melatonin carriers: solid state characterization**
I. Salcedo, E. Carazo, A. Borrego, C. Aguzzi, R. Sánchez-Espejo, C. Jiménez, P. Cerezo and C. Viseras
- 115 **How does the drug loading affect the key properties of prilocaine-PLGA microparticles?**
H. Gasmi, J. SIEPMANN and F. SIEPMANN
- 116 **Controlled release of risperidone-loaded PLGA microspheres and implants by Hot Melt Extrusion**
M. Abou Aloul and H. Steckel
- 117 **Poorly soluble drug-loaded PLGA microspheres based on Resomer® RG types – comparative study**
J. Vysloulzil, K. Dvořáčková and M. Kejdu-ová
- 118 **Biodistribution and efficacy of pH-sensitive HPMA copolymer drug delivery systems in cancer treatment**
A. Heinrich, T. Etrych, L. Schindler, S. Hoffmann, H. Caysa, K. Mäder and T. Mueller
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Contact

Prof Anna Maria Fadda

Phone: +39-070 685 8565

Fax: +39-070 675 8553

Via Ospedale, 72
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Patricia Roger

Phone: + 34 91 6313263

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Contact

Nadine Maalouf
PharmD provided

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E-mail:

Martin Luther King, 13
20060 Pessano con Bornago
(MI) Italia

nmaalouf@aptalispharma.com

Web: www.AptalisPharmaceuticalTechnologies.com

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Contact

Catharina Kroling

Phone: +33-14 66 02 510

Fax: +33-14 68 35 308

5 Rue Jean-Baptiste Clement
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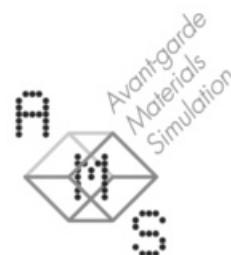
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Rüdiger Dartsch

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Fax: +49-6126 952 6333

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Fax: +32-388 926 22

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Phone: +31-204 853 798

Fax: +31-204 853 228

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Phone: +44-115 912 4271

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Biocity Nottingham

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Sophie Hughes

Phone: +33-426 041 614

Fax: +33-478 904 567

E-mail: shughes@gattefosse.com

36, Chemin de Genas
CS70070

69804 St Priest Cedex
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Web: www.gattefosse.com

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Philippe Tschopp

Phone: +49-7621 664 506

Fax: +49-7621 64723

E-mail:

philippe.tschopp@glatt.com

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Michel Terray

30 rue Jean Rostand
91893 Orsay-Cedex
France

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Phone: +31-625 199 128

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Margit Bonnettsmüller

Megglestr. 6-12
83512 Wasserburg
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Contact

Dr. Berna Ehlig

Phone: +49-211 130 668 60

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Mesut Ciper

Phone: +49-30 577 01 41 30

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Dr. Grzegorz Garbacz

Phone: +49-381 451 549 0

Fax: +49-383 451 540 2

Walther-Rathenau-Str. 49a
17489 Greifswald

E-mail: ggarbacz@physiolution.eu

Germany

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Contact

Hubert LOCHARD

Phone: +33-563 8124 00

Fax: +33-563 5732 07

16, rue Jean Rostand
81603 Gaillac Cedex
France

E-mail: supercritical-solutions@pierre-fabre.com

Web:

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Contact

Filip Van der Gucht

Phone: +32-934 223 23

Fax: +32-934 282 53

Industriepark Rosteyne 4
9060 Zelzate
Belgium

E-mail: sales@procept.be

Web: www.procept.be

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Contact

Catherine Bilde

62080 Lestrem Cedex
France

Phone: +33-321 6336 00

Fax: +33-321 6394 64

E-mail:
pharma.business.unit@roquette.com

Web: www.roquette-pharma.com

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Rottendorf Pharma GmbH

Rottendorf Pharma is a worldwide operating Technical Operations Organization for the development, manufacturing and packaging of solid dosage forms. We provide the complete range of services according to customer needs assuming Total Process Ownership on every level. Our portfolio comprises blends, granules, multilayer-, press-, film- and sugar-coated tablets as well as filling hard gelatine capsules, and pellets. We offer formulation and process development, manufacturing, packaging, analytical method development, ICH stability studies, dossier compilation, clinical batch manufacturing and market release. Our state-of-the-art technologies, like hot melt extrusion and granulation, are conforming to international GMP and FDA standards.

Contact

Dr. Ulrich Ader

Ostenfelder Str. 51-61
59320 Ennigerloh
Germany

Phone: +49-2524 268 0

Fax: +49-2525 268 100

E-mail: info@rottendorf.com

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Contact

Ian Cox

Wittington House
Henley Road
Medmenham
Marlow, Buckinghamshire
SL7 2EB
United Kingdom

Phone: +44-1628 490 200

Fax: +44-01628 486 933

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Contact

Shilpa Mistry

Phone: +49-611 962 6199

Fax: +49-611 962 9777

Rheingastr. 190-196

E-mail: Contact@se-pfmd.com

65203 Wiesbaden

Germany

Web: www.SE-PFMD.com



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Sirius Analytical Ltd.

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Contact

Rebecca Heys

Phone: +44-1342 820720

Fax: +44-1342 820725

Forest Row Business Park

E-mail:

Station Road, Forest Row

Rebecca.hey@sirius-analytical.com

East Sussex, RH18 5DW

United Kingdom

Web: www.sirius-analytical.com

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Contact

Paul Senn

Phone: +41-61 467 55 55

Fax: +41-61 467 55 00

Eptingerstr. 61

E-mail: p.senn@skyepharma.com

4132 MuttENZ

Switzerland

Web: www.skyepharma.com

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Contact

Tim Senn

Phone: +41-61 845 6000

Fax: +41-61 845 6900

E-mail: info@solvias.com

Zentraler Faktoreneingang

Römerpark 2

4303 Kaiseraugust

Switzerland

Web: www.solvias.com



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Contact

Binningerstr. 106

4123 Allschwil

Switzerland

Phone: +41-61 487 54 54

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Stable Micro Systems Ltd.

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Contact

Mark Proto

Vienna Court, Lammas Road

Godalming

GU71YL Surrey

United Kingdom

Phone: +44-1483 427 345

Fax: +44-1483 427 600

E-mail: sales@stablemicrosystems.com

Web: www.stablemicrosystems.com



BOOTH: 09

tesa Labtec GmbH

Contract Manufacturing
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Contact

Klaus Köhl

Phone: +49-2173 973 50

Fax: +49-2173-973 535

Raiffeisenstr. 4
40764 Langenfeld
Germany

E-mail: info.tesa-labtec@tesa.com

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Contact

Christine Adam
Business Development
Manager
Pharm D

Phone: +33-556 3420 59

Mobile: + 33 6 32 10 19 17

E-mail: cadam@unither.fr

Web: www.unither-pharma.com

Unither Développement
Bordeaux
ZA Tech-Espace,
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Contact

Lena Welter

Phone: +49-731 140 70 0

Fax: +49-731 140 70 200

Lise-Meitner-Str. 6

E-mail: info@witec.de

89081 Ulm

Germany

Web: www.witec.de



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Contact

Nicolas Mignard

Phone: +33 534 559 928

Fax: +33 567 206 474

45 rue Adolphe Coll

E-mail: wtf@wyatt.com

FR-31300 Toulouse

France

Web: www.wyatt.com



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