

Posters

35th Annual Meeting & Exposition of the Controlled Release Society



Empire State Building

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Posters

Poster Session I • Rhinelander Gallery

Generously co-sponsored by Merck & Co., Inc.

Sunday, July 13

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Monday, July 14

Open 11:00-18:00

Authors Present 14:00-15:00

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189 Can PECA Nanoparticles be Used to Achieve a Biological Response to Sterility Agents for the Brushtail Possum?
A McDowell, A Kafka, J Crawford, D Eckery, B McLeod, T Rades
University of Otago, New Zealand

191 Multifunctional siRNA Delivery System for Cancer Therapy
R Savla, O Taratula, I Pandya, A Wang, T Minko, H He
Rutgers, The State University of New Jersey, USA

192 Screening of Particle Size Distribution Affecting Variables in a Rotating Pan Granulation Process Using a 27-3 Fractional Factorial Design
J Chan, S Vogel, J Wen, R Alany
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194 A study on *in vitro* transfection of plasmid DNA using gene gun
X Li
University of London, UK

195 Basal and Pre-prandial Insulin Analogue Injections vs. Basal Human Insulin Injection and Prandial Oral Insulin (Generex Oral-lyn™) in Type-1 Diabetes Mellitus: A 372-Day Comparison
J Guevara-Aguirre, M Guevara-Aguirre, J Saavedra, A Rosenbloom, G Bernstein
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196 Biocompatible Polysaccharide Foams – Delivery Devices for Biomolecules
T Andersen
FMC BioPolymer AS/
NovaMatrix, Norway

197 Characterization of Xylan Microcapsules Containing Usnic Acid
B Damasceno, A Silva, M Gomes, L Aguiar, H Marcelino, E Oliveira, T Nagashima, N Magalhães, E Egito
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198 Design and Development of Retentive Gastospheres for the Delivery of Narrow Absorption Window and Low Bioavailable Drugs
C Murphy, V Pillay, Y Choonara
University of the Witwatersrand, South Africa

199 Design of the Semi-permeable Membrane for an Osmotic Drug Delivery System
J Yuan, N Clipse, D Dunn, R Newton
Eastman Chemical Company, USA

200 Direct and quantitative measurement of liquid flow on a microfluidic chip
C Haber
Sensirion, USA

201 Drug-Eluting Coatings that Prevent Bacterial Colonization of Medical Devices
N Lockwood, A Bach, R Hergenrother, I Mitropoulos, L Baeker Hovde, J Rotschafer
SurModics, Inc., USA

202 Effect of Immunization to Ovalbumin Administered by Biocompatible Microneedle Sheets
H Park
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203 Efficacy of local delivery of analgesia from resorbable osteo-conductive bone void fillers in rat pain models
D Schachter, D Torres, B Story, C Fang, U Herzberg, A Shah, Y Zhou
Johnson & Johnson, USA

204 Evaluation of Drug Loadable Porous Microspheres for Doxorubicin Delivery Using a Vx-2 Tumor Model in Rabbit Liver
R Richard, S Puri, J O'Gara, K Lee, E Liapi, M Buijs, J Vossen, M Vali, J Geschwind
Boston Scientific, USA

205 Evaluation of therapeutic efficacy and Adriamycin distribution encapsulated in polymeric micelles by convection-enhanced delivery
M Nishihara, T Inoue, Y Yamashita, S Sugiyama, Y Sonoda, T Kumabe, T Tominaga, M Yokoyama
Kanagawa Academy of Science and Technology, Japan

206 Formulation and Evaluation of a Rapidly Disintegrating Oramucosal Wafer Delivery System
D Reddy, V Pillay, Y Choonara
University of the Witwatersrand, South Africa

207 Functionalization and Characterization of Aligned Nanodevices as Potential Vaccine Delivery Systems
T Ranjan Nayak, M Zheng, H Junginger, G Pastorin
National University of Singapore, Singapore

208 Immobilized Trypsin for *In Vivo* Detection of Gastric A1-Antitrypsin
E Khazanov, N Emmanuel, A Azab, E Yavin, Y Barenholz, A Rubinstein
The Hebrew University of Jerusalem, Israel

209 *In Vitro - In Vivo* Correlation of the Release of the HIV Microbicide Dapivirine from Silicone Elastomer Vaginal Rings
C McCoy, K Malcolm, D Woolfson, J Romano, A Nel, S Smythe, K Young, Z Rosenberg
Queen's University of Belfast, Northern Ireland

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M Brouillette
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A Jariwala, R Jain, A Raval, C Engineer, H Kotadia, D Kothwala, V Patravale
Institute of Chemical Technology (ICT), India
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Biocompatibles UK Ltd., UK
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- 229 Internally Quaternized PAMAM-OH Dendrimers as Efficient siRNA Delivery Systems: The Effect of Targeting Moiety and Degree of Quaternization**
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- 230 Nanosizing Indomethacin by Wet Ball-Milling Technique - An Efficient Method to Improve the Solubility Properties of the Poorly Soluble NSAID**
R Kettunen, L Peltonen, M Karjalainen, J Hirvonen
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- 231 Novel Simvastatin Loaded Bone-Targeting Micelles for the Effective Treatment of Osteoporosis**
X Liu, X Li, F Chen, D Wang
University of Nebraska Medical Center, USA

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- 234 Beta-glucan characterization and production of microparticles containing lactoferrin by cryomilling**
H Kumar, J Wen, C Bunt
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E Mathiowitz, M Nangia, V Ramanan, K Rizzolo, J Yeh
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A Cresce, R Dandu, J Cappello, H Ghandehari
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H Nasri
Banner Pharmacaps, USA
- 239 Directly compressible sustained release tablets of Metformin hydrochloride**
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K.B. Institute of Pharmaceutical Education and Research, India
- 240 Encapsulation and release of an insect repellent (DEET) from a starch-oil microemulsion**
J Wille, R Toronyi
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- 242 Evaluation of phototoxicity induced by hydroxycinnamic acid upon UVA exposure**
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University of New Mexico, USA
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University of Strathclyde and Glasgow Royal Infirmary, UK
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University of Medicine and Pharmacy, Romania

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A Vetter
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- 264 Controlled Nucleic Acid Delivery from Crosslinked Polysaccharide Gels**
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- 265 Covalent Modification of Surfaces with Anionic Polymers Controls Release and Enhances Transfection of DNA/Cationic Polymer Complexes**
J McGonigle, A Anderson
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 University of Utah, USA
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Y Wang, B Canine, A Hatefi
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Y Katayama, Y Sato, K Terada, T Niidome, T Mori
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T Kimura
 Tokyo Medical and Dental University, Japan
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- 283 The Effect of Nanoparticle Stabilization by Disulfide Linkages on DNA and siRNA Delivery with Novel Multifunctional Carriers with pH-Sensitive Amphiphilicity**
X Wang, T Nguyen, Z Lu
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M O'Neill, M Walsh, C Byrne, R Darcy, C O'Driscoll
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J Lam
 King's College London, UK

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- 287 Cyclosporine Solid Lipid Nanoparticles: Evaluation of *In-Vivo* Drug Release in Rabbit Eyes**
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S McGlinchey, C Parsons, C McCoy, D Jones, S Gorman
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D Shastri, D Patel
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J Slager, M New, G Winchester, J Wall, R Hergenrother, T Kloke
SurModics, USA

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- 299 Analysis of Human Growth Hormone Structure Following Encapsulation Using Supercritical CO₂**
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K Stovall, D Pack
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S Lecommandoux, O Sandre, R Perzynski
ENSCP, France

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349 Alginate Based Beads for Controlled Release of Levobupivacaine Base
C Blackshields, E Conway, A Crean
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354 Co-iontophoresis of dexamethasone sodium phosphate, granisetron and metoclopramide for treating chemotherapy induced nausea and vomiting
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University of Geneva, Switzerland

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O Ackaert
Leiden/Amsterdam Center for Drug Research, The Netherlands

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G Goyal, P Vavia
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358 Development of a Transdermal Patch of Pentazocine: *In Vitro* Evaluation Across Hairless Mouse Skin
T Furuishi, T Ito, T Fukami, T Suzuki, K Tomono
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359 Development of organic hydrogel matrix based wound dressing containing antibiotics
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S Hansen, A Naegel, M Heisig, G Wittum, D Neumann, C Lehr, U Schaefer
Saarland University, Germany

368 Formulation and Evaluation of Topical Liquid Crystal Drug Delivery Systems Containing Azelaic Acid
M Aytekin, N Gürsoy, S Hekimoglu
Hacettepe University, Turkey

370 *In Vitro* Permeation Studies of Novel Buprenorphine Prodrugs in Human Skin
S Banks, D Hammell, M Golinski, J Howard, A Stinchcomb
AllTranz Inc., USA

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- 371 *In vitro* transdermal iontophoretic delivery of penbutolol sulfate**
K Ita
Touro University, USA
- 372 *In Vitro* Wound Healing Model for Drug Delivery Studies into Sutured Surgical Incision**
P Kasha, C Anderson, D Ostrow, H Hui, A [Banga](#)
Mercer University, USA
- 373 *In-Vitro* Comparison of Excipients for the Permeation Enhancement of Diclofenac Potassium**
S [Hantman](#), S Bonne, D Houze, J Mantelle, G Toth
Noven Pharmaceuticals, Inc., USA
- 374 Influence of oligo-lysines on skin permeation of sodium fluorescein**
M [Kratzel](#)
University of Vienna, Austria
- 375 Influence of Voltage Application on Electrophoretic Transdermal Delivery of Fentanyl**
B [Schroeder](#), E Meyer, U Nickel, G Lee
Novosis AG, Germany
- 376 Interaction of tea tree oil and its constituents with over-the-counter medicaments**
J O'Neill, K Chan, C [Martin](#)
University of Wolverhampton, UK
- 377 Iontophoretic delivery of dexamethasone sodium phosphate across porcine skin *in vitro***
J Cázares-Delgadillo, A Ganem-Rondero, D Quintanar-Guerrero, Y [Kalia](#)
University of Geneva, Switzerland
- 378 Nanostructured Lipid Carrier (NLC) As Ultra Violet Protectant**
A Jain, A Gulbake, P Khare, S Jain
Dr. H. S. Gour University, India
- 379 Novel combination of monocaprin and doxycycline in treatment of cold sores**
S [Skulason](#), T Kristmundsdottir, W Holbrook, H Thormar
University of Iceland, Iceland
- 380 Novel transdermal delivery system using the water vapor controllable fabrics**
K [Hong](#), H Park, S Jeong, B Park
NeoPharm Co., Ltd., South Korea
- 382 P.L.E.A.S.E.[®]: A promising tool for intraepidermal drug delivery**
Y [Bachhav](#)
University of Geneva, Switzerland
- 383 Penetration of Colloidal Vesicles into the Skin**
B [Baroli](#), S Collu, M Ennas, R Pinna
University of Cagliari, Italy
- 384 Permeation of Benzocaine Across Pig Ear Skin from Bioadhesive Films**
D Araujo, C [Padula](#), P Santi
University of Parma, Italy
- 385 Pharmacokinetic and Pharmacodynamic Study of Bioadhesive Transdermal Formulation**
S Amin, S Mir, K Kohli, R Khar, K Pillai
Jamia Hamdard, India
- 386 Photokinetic Transdermal Delivery of a Lidocaine-Prilocaine Eutectic Mixture**
A [Koutrouvelis](#), G Kulp, E Kraft, M Jeschke, Y Nakano, H Hawkins, R Cox, G Jo, D Herndon, D Prough
University of Texas Medical Branch, USA
- 387 Photokinetic Transdermal Delivery of Cyanocobalamin**
A [Koutrouvelis](#), G Kulp, E Kraft, M Jeschke, H Hawkins, R Cox, D Herndon
University of Texas Medical Branch, USA
- 388 Photokinetic transdermal delivery of peptides**
G [Kulp](#), A Koutrouvelis, E Kraft, M Jeschke, D Herndon
Shriners Hospital for Children, USA
- 390 Preparation and Characterization of Drug-in-Adhesive Type Patches Containing Meloxicam**
Y [Ah](#), Y Choi, J Choi, H Ki, J Bae
Amorepacific Co., South Korea
- 391 Punched-on-Substrate Solid Microneedle Sheets of Biocompatible Polymer for Transdermal Drug Delivery**
M [Han](#), H Park, D Hyun, S Lee, C Kim, C Kim
KAIST, South Korea
- 392 Raman Chemical Imaging of Multilayered Systems**
O [Klueva](#), M Nelson, P Treado
ChemImage Corp., USA
- 394 Rapid screening of drug release and penetration into stratum corneum membrane**
E Stelmach, J Lenn, V Wirth, R [Buchta](#), H Hofland
Stiefel Research Australia, Australia
- 395 Skin Delivery Enhancement of 5-Aminolevulinic Acid in the Photodynamic Therapy of Skin Cancer: Influence of D-Limonene as Permeation Enhancer**
W Bertolini, M [Bentley](#)
University of Sao Paulo, Brazil
- 397 Topical Delivery of Zinc Phthalocyanine for Photodynamic Therapy of Skin Cancer: Formulation and *In Vitro* Penetration Study**
Delivery
F Rossetti, M Fantini, A Tedesco, M [Bentley](#)
University of Sao Paulo, Brazil
- 399 Transdermal Delivery of Proteins Using Microdermabrasion**
S [Andrews](#), E Jeong, H Gill, M Prausnitz
Georgia Institute of Technology, USA
- 400 Transdermal Delivery Test of Maltose Microneedle into Human Skin**
Y [Tobinaga](#)
Elegaphy, Inc., Japan
- 402 Use of Capmul MCM as a Skin Penetration Enhancer: Influence of Capmul Concentration and Vehicle**
L [Lopes](#), A Nornoo
Albany College of Pharmacy, USA

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| <p>403 A Neutron Scattering Investigation into the Influence of Ultrasonication on the Structure of Nanoemulsions
J Rouse, J Kim, J Lawrence, <u>G Eccleston</u>
University of Strathclyde, UK</p> | <p>406 Contemporary Approach for Understanding Micellization and Gelation Relationship of Poloxamer 407 Based Pharmaceutical Formulations
<u>K Bouchemal</u>, A Koffi, G Tonelli, M Djabourov, G Ponchel, F Agnely
Univ Paris-Sud, France</p> | <p>409 Investigations of zwitterionic oil-in-water (o/w) microemulsion as drug delivery systems by dynamic light scattering (DLS) small-angle neutron scattering (SANS)
<u>C Hsieh</u>
King's College London, UK</p> | <p>412 Understanding of the Complexation Mechanism Between (+)-Uronic Acid and Cyclodextrins Using Isothermal Titration Calorimetry
<u>K Bouchemal</u>, F Segura-Sanchez, N Santos-Magalhaes, G Ponchel
Univ Paris-Sud, France</p> |
| <p>404 Characterization Methods of the Drug Formulation in Drug-Eluting Stents
<u>G Papandreou</u>, A Orana, J Meng, K Wolf, K Balss, E Akerman, C Maryanoff, W Soboyejo
Cordis Corporation, USA</p> | <p>407 Effect of Nanoparticle Characteristics on Interaction with Endothelial Model Cell Membrane
<u>C Peetla</u>, V Labhasetwar
Lerner Research Institute, Cleveland Clinic, USA</p> | <p>410 Physicochemical characterisation of a solid dispersion containing a poorly water-soluble API
<u>Y Turner</u>, C Roberts, M Davies, I Weuts, S Stokbroekx, F Van Dycke, R Leemans
University of Nottingham, UK</p> | <p>413 X-Ray Photoelectron Spectroscopy (XPS) Study of Self-Assembled Nanoparticles: Predicting In Vivo Behaviour and Functionalization Potential
<u>M Oliva</u>, J Herrera, I Oliva
University of Barcelona, Spain</p> |
| <p>405 Comparison of Methods for Quantifying siRNA Encapsulated into Poly (lactide-co-glycolide) Nanoparticles
<u>D Cun</u>, C Foged, M Yang, L Jensen, S Froekjaer, H Nielsen
University of Copenhagen, Denmark</p> | <p>408 ¹H NMR Detection of Mobile Lipids in Live Cells as a Rapid Screen for Apoptosis Induced by Drug loaded Liposomes
<u>M Toniutti</u>, R Kautz, V Torchilin
Northeastern University, USA</p> | <p>411 Thermal Probe Techniques for the Physical and Chemical Characterisation of Interactions between Biologically Relevant Materials
<u>Z Dragnevska</u>, M Reading, D Craig
University of East Anglia, UK</p> | |

Controlled Release in Cosmeceuticals and Nutraceuticals

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| <p>416 Cow Milk as Nutraceutical and Functional Food: Effect of Homogenization and Skimming on Lipid Globules Size Distribution
M Faustini, M Mucco, A Riccardi, C Colombani, T Chlapanidas, M Torre, <u>D Vigo</u>
Milan University, Italy</p> | <p>417 Dairy Proteins as Encapsulation Matrices for Active Pharmaceutical Ingredients
<u>H Goode</u>
University College Dublin, Ireland</p> | <p>421 TiO₂-Loaded Nanostructured Lipid Carriers (NLC): A Nanosave Dermal Carrier
<u>A Hommoss</u>, M Al-Samman, R Müller
Free University Berlin, Germany</p> |
| | <p>420 Novel Chinese Traditional Medicine Pellets Prepared by Extrusion-Spherization Method
W Chuo, T Wu, T Tsai, Y Huang, <u>T Cham</u>
Kaohsiung Medical University, Taiwan</p> | <p>422 Tween 80 Affects the Released Rate of Lipid-Based Microemulsion with Entrapped Curcumin
<u>H Lin</u>, C Lin, M Lee
National University of Kaohsiung, Taiwan, ROC</p> |

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- 424 Dual drug loaded microspheres: Synergistic effect on human liver cancer cells**
 R Forster, A Lewis, Y Tang, W MacFarlane, G Phillips, A Lloyd
 Biocompatibles UK Ltd. and University of Brighton, UK

Novel Polymers

- 427 Arginine-Grafted Bioreducible Poly(disulfide amine) for Efficient Gene Delivery Systems**
 T Kim, M Ou, M Lee, S Kim
 Univ. of Utah, USA
- 428 Blends of Ethyl Cellulose and Hydroxypropyl Cellulose Intended for Coating: Characterization of the Release Mechanism**
 M Marucci, J Hjartstam, G Ragnarsson, A Axelsson
 Lund University, Sweden
- 430 Chitosan systems for Acyclovir controlled release**
 R Ruiz, T Marras, M Sáiz, M Veiga
 Universidad Complutense de Madrid, Spain
- 431 Chitosan/PEG Diblock Copolymer as a Thermosensitive Hydrogel**
 F Ganji, M Abdekhodaie
 University of Toronto, Canada
- 432 Comparison of Molecular Weight, Intrinsic Viscosity, Zeta Potential and Antibacterial Activities of Five Alkylated Chitosan Derivatives**
 A Sadeghi, M Weinhold, M Avadi, M Rafiee-Tehrani, H Junginger
 Hakim Pharm. Co., The Netherlands
- 435 Development of a polymeric gene carrier to locally target pancreatic islets**
 K Blevins, J Brumbach, J Jeong, S Kim
 University of Utah, USA
- 436 Development of Novel Amphotericin B loaded Environment Sensitive Micelles for Treatment of Systemic Fungal Disease**
 T Diezi, Y Bae, G Kwon
 University of Wisconsin-Madison, USA
- 438 Functionalized Hydrophobic Poly(glycerol-co-caprolactone) for Controlled Drug Release**
 J Wolinsky, M Grinstaff
 Boston University, USA
- 439 Improved Materials for Endovascular Embolization**
 H Bearat, B Lee, B Vernon
 Arizona State University, USA
- 440 Multi-lamellar Vesicle Encapsulation Technology for Skin Care Applications using Ethylene Oxide/Butylene Oxide Diblock Copolymers**
 E Diantonio
 Amerchol/Dow Chemical, USA
- 441 New insights into the properties of shellac**
 Y Farag, C Leopold
 University of Hamburg, Germany
- 444 Organoleptically Appealing Immediate Release EUDRAGIT® Coatings**
 A Samel, P Haksar, J Iyer-Chavan, H Ravishankar, T Morita
 Evonik Degussa India Pvt. Ltd., India
- 445 pH-Sensitive “Click” PEG – Dex Conjugates for Improved Treatment of Rheumatoid Arthritis**
 X Liu, D Wang
 University of Nebraska Medical Center, USA
- 446 Phase Transition Behavior of Novel Soybean Oil-Based Thermosensitive Polymers**
 M Abdekhodaie, S Jiao, Z Liu, S Erhan, X Wu
 University of Toronto, Canada
- 447 Poly(Epsilon-Caprolactone)-Polyglycidol Hyperbranched Conjugates**
 L Wang, X Li, C Song
 Chinese Academy of Medical Sciences, China
- 448 Preparation and Drug Release Behaviors of Minocycline Loaded Poly(Hydroxyethylmethacrylate-Co-(Polyethyleneglycol-Methacrylate) Films**
 B Arica, G Bayramoglu, Y Arica
 Hacettepe University, Turkey
- 450 Solubilization of Hydrophobic Drugs Using Peptoid G**
 R Maroju, H Zhang
 Mercer University, USA
- 455 Thermosensitive Bioorganic Triblock Polymers for Tumor Selective Targeting of Geldanamycin**
 R Buresh, D Furgeson, Y Bae, G Kwon
 University of Wisconsin-Madison, USA

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- 456 A Polymer Blend System for Lower Intestine-Targeted Drug Delivery**
T Omura, M Haratake
Mitsubishi Tanabe Pharma, Japan
- 457 A Theoretical Solution for Drug Release from Two Dimensional Membrane-Reservoir Tablets**
Y Zhou, J Chu, X Wu
University of Toronto, Canada
- 458 Accurate GI targeting with EUDRAGIT® FS 30 D / L 30 D - 55 mixtures**
M Assmus, T Dassinger, G Galayo, B Skalsky
EVONIK Röhm GmbH, Germany
- 459 Application of In-Use Stability Evaluation for Formulation of Imidapril**
C Park, J Woo, B Go, K Jeong, S Chi, E Park
Sungkyunkwan Univ., South Korea
- 460 Application of melt granulation technology to enhance tableting properties of poorly compactable drug substance at high dose**
J Lakshman, J Kowalski, M Vasanthavada, W Tong, Y Joshi, A Serajuddin
Novartis Pharmaceuticals, USA
- 461 Automated controlled release multiple layer coating**
D Devanga-Chinta, R Graves, S Pamujula, T Mandal
Xavier University, USA
- 462 Biorelevant dissolution media simulating fasted and fed states: Impact on solubility and intrinsic dissolution rate of poorly soluble model compounds**
K Klebert, F Jacobsen, A Müllertz
University of Copenhagen, Denmark
- 463 Buccal Delivery of Erythromycin Lactobionate to Treat Gastroparesis**
S Salameh, J Dibaise, C Mead, R McLemore, B Vernon
Arizona State University, USA
- 464 Carboxylated Chitosan under Protonated Form for Drug Controlled Release**
T Tran, T Le, P Gosselin, M Mateescu
Université du Québec à Montréal, Canada
- 465 Co-encapsulated antioxidant nanoparticles (NanoCAPs) of ellagic acid and coenzyme Q10 assuage dyslipidemia in insulin resistant rats**
V Devadasu, C Godugu, R Poduri, M Kumar, D Ankola
NIPER, India
- 466 Coating pellets poses difficulties tableting process which is attributed to the fact that ethylcellulose is fragile polymer having low resistance to compression (impossible to obtain a slow release profile from tableted pellets). Solutions was the use of hot tableting method**
J Mazgalski, W Sawicki
Medical University of Gdansk, Poland
- 467 Comparison of In-Vitro, In-Vivo Data by Different Granulation Method in a Matrix Controlled-Release System**
Y Wang
Standard Chem. & Pharm. Co., Ltd., Taiwan
- 468 Comparison of the Characteristics of Tablets Manufactured Using Directly Compressible Bases of Mannitol and Ludipress**
R Pabari, Z Ramtoola
Royal College of Surgeons, Ireland
- 469 Crosslinked and Substituted Starches as Excipients in Sustained-Release Tablet Formulations**
F Onofre, Y Wang
University of Arkansas, USA
- 470 Dendrimer Nanocarriers for Enhanced Cellular Permeability: Influence of Dendrimer Size on Biological Properties**
M Najlah, S Freeman, D Attwood, A D'Emanuele
University of Central Lancashire, UK
- 471 Design of Biodegradable Nanoparticles for Oral Delivery of Doxorubicin**
D Kalaria, V Bhardwaj, D Gupta, V Beniwal, M Kumar
National Institute of Pharmaceutical Education and Research (NIPER), India
- 472 Design of Oral Sustained Release Formulation Using Hydrophilic Polymer Na-CMC**
S Patel, M Savva, B Selvi, S Patel
Long Island University, USA
- 473 Development of a stable amorphous formulation for a poorly soluble drug**
J Cao, J Kowalski, J Lakshman, W Tong, A Serajuddin
Novartis Pharmaceutical Corp., USA
- 474 Dissolution media dependent susceptibility of dosage forms to biorelevant mechanical stress**
G Garbacz
University of Greifswald, Germany
- 475 Drug dissolution rate measurements - evaluation of the rotating disc method**
E Kaunisto, B Nilsson, A Axelsson
Lund University, Sweden
- 476 Drug formulation studies using a new grade of hypromellose excipient designed for direct compression controlled release applications**
K Ender, H Bernthal, T Cabelka, K Jacob, T Kajdan, D Wallick
The Dow Chemical Company, USA
- 477 Drug Release Mechanisms from Pellets Coated with Ethylcellulose:PVA-PEG-Graft-Copolymer**
S Muschert, F Siepmann, B Leclercq, B Carlin, J Siepmann
University of Lille, France
- 478 Effect of Filler Type on the Stability of Polyethylene Oxide in a Hydrophilic Matrix Tablet**
J L'Hôte-Gaston, D Wallick
The Dow Chemical Company, USA

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- 481 Effect of Hypromellose and Methylcellulose Substitution Type, Molecular Weight and Drug Solubility on Release Kinetics from Matrix Tablets**
D Tewari, S Battu, R Lewis, W Harcum, T Durig
Aqualon, a Business Unit of Hercules Incorporated, USA
- 482 Effect of particle size of mannitol on a polymethacrylate matrix tablets prepared by direct compression**
L Chatterjee, A Baier, T Rades, I Tucker
University of Otago, New Zealand
- 483 Effect of Water Soluble Carriers on the Dissolution and Physical Stability of Meloxicam Solid Dispersions**
L Emara, R Badr
National Research Centre, Egypt
- 484 Enteric HPMC Capsules: Formulation and *in vitro* performance**
A Smith, Y Perrie
Aston University, UK
- 485 Evaluation of estradiol encapsulated nanoparticulate formulation in diet induced hyperlipidemic ovariectomized (OVX) rat model**
G Mittal, C Godugu, R Poduri, M Kumar
National Institute of Pharmaceutical Education and Research, India
- 487 Exploring changes in early gel layer formation and drug release from HPMC matrices in the presence of dietary sugars**
H Williams
Nottingham University, UK
- 488 Formulation and *in vitro* Evaluation of Gastric Floating and Sustained Release Tablet Formulation of Norfloxacin**
P Mair, N Kulkarni, N Ranpise, M Gaikwad
Sinhgad College of Pharmacy, India
- 494 Formulation of Cilnidipine Modified-Release Tablet**
J Kim, B Hur, S Chi
Sungkyunkwan University, South Korea
- 495 Formulation of Mucoadhesive Sublingual Films of Salbutamol Sulphate**
R Patel, S Poddar, V Iyer
K.M.K. College of Pharmacy, India
- 496 Formulation of Omeprazole as nano suspensions using a block polymer**
R Islam, Y Perrie, A Mohammed
Aston University, UK
- 498 Formulation Optimization of a Controlled-Release Matrix System Utilizing Design of Experiment**
C Lin
Standard Chem. & Pharm. Co., Ltd., Taiwan
- 499 Hot-Melt Granulation and Bead Coating Technology for Controlled Drug Delivery of a Highly Soluble Anti-cancer Drug**
A Shah, A Gondi, V Ketkar, V Kota
Frontage Laboratories, USA
- 500 How the Experimental Setup Can Affect Drug Release Patterns from Oral Dosage Forms**
S Muschert, C Barthelemy, Y Cuppok, B Aguilar, M Flament, P Odou, J Siepmann
University of Lille, France
- 501 Human plasma levels of quercetin following oral administration**
D Kaushik, K O'Fallon, P Clarkson
Rutgers - The State University of New Jersey, USA
- 502 Hydrocortisone-PVP solid dispersions prepared from aqueous-ethanolic solutions**
A Crean, R Reddy
University College Cork, Ireland
- 503 Hydrotropic Polymer Micelles for Delivery of Hydrophobic Drugs**
J Kim, S Kim, R Pinal, T Konno, K Ishihara, K Park
Purdue University, USA
- 504 Implications of Tablet Surface Area/Volume Ratio and Hydroxypropyl cellulose Molecular Weight on Drug Release from Sustained Release Matrix Tablets**
M Divi, T Durig, W Harcum, D Malone
Hercules Inc, USA
- 505 Improved Absorption of Salmon Calcitonin from Rat Small Intestine *in vivo* with Sodium Caprate and a Mucolytic (n-Acetyl-Cysteine)**
X Wang, M Tambuwala, D Brayden
University College Dublin, Ireland
- 506 Improvement of dissolution from tablets made by compression of solid dispersions**
T Hoshino, F Tanno
Shin-Etsu Chemical Co., Ltd., Japan
- 507 *In Vitro* Determination of Gastrointestinal Mucoadhesion Formulations**
S Jang
UT Austin, USA
- 509 *In Vitro/In Vivo* Evaluation of Acamprosate Enteric-Coated Tablets**
T Oh, J Jeon, N Choi, C Park, Y Rhee, D Lee, E Park
Sungkyunkwan Univ., South Korea
- 510 *In vivo* comparison of the inhibitory effect of thiolated poly(acrylic acid) of various molecular masses and various concentrations on intestinal MRP2 efflux pumps**
J Hombach, M Greindl, A Bernkop-Schnürch
University of Innsbruck, Austria
- 512 Influence of Bentonite on Drug Release by Sodium Carboxymethyl Starch Excipients**
E Assaad, A Azzouz, M Mateescu
Université du Québec à Montréal, Canada
- 513 Influence of Particle Size and Preparation Methods on the Physical and Chemical Stability of Amorphous Simvastatin**
F Zhang, J Aaltonen, F Tian, D Saville, T Rades
University of Otago, New Zealand
- 514 Influence of the components of polymer film on mechanical properties of floating pellets with verapamil hydrochloride in aspect of tableting**
R Lunio, W Sawicki
Medical University of Gdansk, Poland
- 515 Influence of the hydration kinetics and the viscosity balance on the drug release performance of push-pull osmotic systems**
M Vincent, M Hendrik, O Joerg, M Karsten, G Robert, L Nicoletta
Novartis Pharma AG, Switzerland & School of Pharmaceutical Sciences, University of Geneva, Switzerland

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X Wang, M Tambuwala, D Brayden
University College Dublin, Ireland
- 517 Investigation of Venlafaxine HCl Release from Extruded and Spheronized Beads Coated with Ethylcellulose using Organic or Aqueous Coating Systems**
S Missaghi, K Fegely, A Rajabi-Siahboomi
Colorcon, USA
- 518 Investigation on *in vitro* Release and Antimicrobial Activity of Alveolus Cones with Benzydamine HCl**
I Popovici, L Ochiuz, E Popa, A Stefanache, M Mares, A Spac, V Dorneanu
University of Medicine and Pharmacy, Romania
- 519 Kollicoat SR:Eudragit NE Blends Used for Film Coating**
S Muschert, M Marucci, Y Cuppok, J Hjaertstram, F Siepman, J Siepman, A Axelsson
University of Lille, France
- 520 Measurement of Compaction Force and Displacement Parameters for Quantification of Compactability of Pharmaceuticals**
S Patel, A Kaushal, A Bansal
NIPER, India
- 521 Mechanistic Modeling of Metoprolol Absorption and Pharmacokinetics from Immediate and Modified Release Formulations**
V Lukacova, J Chung, J Crison, M Bolger, W Woltosz
Simulations Plus, Inc., USA
- 522 Melt extrusion processes with EUDRAGIT® polymers for heat-sensitive substances like proteins**
A Gryczke, K Nollenberger
Evonik Röhm GmbH, Germany
- 523 Melt Granulation Technology to Develop Modified Release Tablet Dosage Form for High-Dose Active Pharmaceutical Ingredients**
M Vasanthavada, J Lakshman, J Kowalski, W Tong, A Royce, R Altenburger, Y Joshi, A Serajuddin
Novartis Pharmaceuticals Corporation, USA
- 524 Mesoporous Silicon and Silica as Carrier Materials for Oral Delivery of Poorly Soluble Drugs: Cytotoxicity and Formulation Compatibility**
T Heikkilä, H Santos, J Salonen, J Riikonen, E Mäkilä, T Laaksonen, L Peltonen, N Kumar, D Murzin, T Salmi, J Hirvonen, V Lehto
University of Turku, Finland
- 525 Micro Mechanical Investigation of Fracture Properties of Roller Compacted Acetaminophen**
S Patel, A Kaushal, A Bansal
NIPER, India
- 526 Mucoadhesive hydrogel films based on blends of poly(acrylic acid) and methylcellulose for buccal drug delivery**
D Burnett, M Naderi, O Khutoryanskaya, V Khutoryanskiy
Surface Measurement Systems, USA
- 527 Nanoparticles of novel ultrapure GMP chitosan from vegetal source for oral vaccination with protein or DNA**
L Plapied, V Fievez, A Des Rieux, B Vroman, Y Schneider, V Preat
Université Catholique de Louvain, Belgium
- 528 Novel Design for Controlled Release of Diclofenac Sodium Through Buccal Delivery**
P Parejiya, M Gohel
K.B.I.P.E.R, India
- 529 Particle Engineering of the Glass Thermoplastic System Using the Particles Obtained from Gas Saturated Solutions (PGSS) Process**
G Verreck, R Vandecruys, J Voorspoels, L Baert, M Brewster, I Van Assche, Z Knez
Johnson & Johnson, Belgium
- 530 Pharmacokinetic Evaluation of Topiramate Immediate-Release Tablets and Topiramate Extended-Release Capsules in Healthy Volunteers**
A Nangia, R Gambhir, M Iampietro, J Jacob, D Verma
Spherics, Inc., USA
- 531 Pharmacokinetic Profile Modulation of a Poorly Water-Soluble Compound Using Poloxamers**
C Popescu, O Magnusson, J Bjornsson, M Thorsteinsdottir, J Singh, M Gurney
deCODE Genetics, USA
- 532 Pharmacokinetic Simulations in Sustained Release Dosage Form Development Using Matlab® and Simulink®**
R Walker, F Chaibva
Rhodes University, South Africa
- 533 PLGA nanoparticles of Paclitaxel (Taxol) for the treatment of solid tumors**
V Bhardwaj, D Ankola, M Kumar
National Institute of Pharmaceutical Education and Research (NIPER), India
- 534 Poly(isobutyl cyanoacrylate) nanoparticles decorated with thiolated chitosan: Strategies for Leu-enkephalin controlled release**
S Mazzaferro, K Bouchemal, V Campos-Requena, C Vautier, C Gueutin, G Ponchel
University Paris-Sud, France
- 535 Preparation and characterization of liposomes coated with thiolated poly(acrylic acid) for oral drug delivery**
M Werle, H Takeuchi
Gifu Pharmaceutical University, Japan

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- 536 Preparation, Characterization and Stability Study of Solid Dispersion of Coenzyme Q10**
P Nepal, H Choi
Chosun University, South Korea
- 537 QbD of Oral Controlled Release Dosage Forms by Computational Simulation**
Y Zhou, J Li, X Wu
University of Toronto, Canada
- 538 Sodium Alginate Drug Delivery Films**
S Skulason, J Thrainsson, T Kristmundsdottir
University of Iceland, Iceland
- 539 Structural and Chemical Evaluation of a Lyophilised “Fast Melt” Formulation Using Micro-CT and Raman Microscopy**
M Perkins, S Ward, C Madden-Smith, S Luk, A Parker, N Patel, C Roberts
Molecular Profiles, UK
- 540 Study on the Blend of Kollidon SR and Ibuprofen**
G Dorairaju, B Labrec, A Listro, L Acquarulo
Foster Corporation, USA
- 541 The effect of humidity on moisture content and thermal behaviour of ammonio methacrylate copolymers**
C Pirayavaraporn, T Rades, I Tucker
University of Otago, New Zealand
- 542 The effect of humidity on moisture content and thermal behaviour of ammonio methacrylate copolymer**
C Pirayavaraporn, T Rades, I Tucker
University of Otago, New Zealand
- 543 The Effects of Manufacturing Process on the Wet Granules for ODTs**
J Hwang, H Lim, K Kim, S Park, G Seomon, S Hwang, H Chung, C Pai, K Park
Samyang Central R&D Center, South Korea
- 544 The Influence of Degree of Esterification on *In Situ* Gelling Pectin Formulations for Oral Sustained Delivery**
S Miyazaki, K Itoh, A Takahashi, D Attwood
University of Hokkaido, Japan
- 546 Using measured LogP and measured solubility to predict a compound’s biopharmaceutics class**
C Haber
Sirius Analytical Inc., USA

Particulate Delivery Systems

- 547 A fast/slow biphasic delivery system for ibuprofen release**
C Lopes, P Costa, J Pinto, J Sousa Lobo
Fernando Pessoa
University, Portugal
- 548 All-Trans Retinoic Acid Release from Ion Complex Polymeric Micelles of Methoxy Poly (Ethylene Glycol)-Grafted-Chitosan**
M Jang, D Kim, C Jeong, Y Park, J Nah
Suncheon National University, South Korea
- 549 beta-Cyclodextrin-Based Disintegrating Pellets With Improved Dissolution/Release Performances**
L Palugan, L Zema, M Cerea, A Foppoli, M Sangalli, A Gazzaniga
University of Milan, Italy
- 550 Biopharmaceutical Characterisation of Melt-Extrudates Using the Caco-2-Cell-Model: Cytotoxicity and Permeability Screening**
J Kanzer, I Tho, M Degenhardt, M Mägerlein, G Fricker, M Brandl
University of Tromsø, Norway
- 551 Co-encapsulation of proteins and magnetic particles in biocompatible polymer nanoparticles**
C Schatz
Université Bordeaux, France
- 552 Controlled release formulation of Tamsulosin HCl using EUDRAMODE technology**
S Mohite, A Samel, S Bodinge, H Ravishankar, B Broegmann, U Loeffler, K Glaenger
Evonik Degussa India Pvt. Ltd., India
- 553 Controlled Release Sodium Diclofenac Microparticles: Effect of Spray Drying and Formulation Variables**
R Pabari, Z Ramtoola
Royal College of Surgeons, Ireland
- 554 Design of Intracellular Protein Delivery System by Carbonate Apatite Carrier**
S Tada, E Chowdhury, H Chen, T Akaike
Tokyo Institute of Technology, Japan
- 556 Development on Sustained Release Formulation of an Antipsychotic Drug**
F Buevich, S Pulapura
Tyrx Pharma Inc., USA
- 557 Distinct Pharmacokinetic Performance of Biodegradable Microspheres of Hydrophilic Cefazolin with Different Release Characteristics**
T Zhu, J Hong, J Shah, D Chow
University of Houston, USA
- 558 Disulfide Crosslinked Polymeric Micelles Encapsulating Anionic Dendrimer Phthalocyanines to Enhance Photodynamic Efficacy**
Y Cheng, M Kumagai, S Horie, S Fukushima, T Sarma, W Jang, N Nishiyama, K Kataoka
The University of Tokyo, Japan
- 559 Effect of Ethanol as a Co-solvent on the Characteristics of PLGA Microspheres**
A Rawat, U Bhardwaj, D Burgess
University of Connecticut, USA
- 560 Encapsulation of an iNOS Inhibitor by Microspheres Composed of Partially Oxidized Dextran and N-Carboxyethyl Chitosan Requiring No Crosslinking Reagents**
C Falabella, L Weng, W Chen
SUNY Stony Brook, USA

Poster Session II • Rhinelander Gallery

Tuesday, July 15

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Particulate Delivery Systems (continued from previous page)

- 561 **Ex vivo Evaluation of Natural and Methylated Cyclodextrins as Buccal Permeation Enhancers for Omeprazole Delivery**
A Figueiras, J Hombach, E Veiga, A Bernkop-Schnürch
University of Coimbra, Portugal
- 562 **Factorial Design for the Microencapsulation of Carbamazepine (CBZ) with Eudragit® and Polyethylene Glycol**
S Khamanga, H Haidula, R Walker
Rhodes University, South Africa
- 564 **Freeze-dried chitosan-hyaluronic nanoparticles as vehicles for DNA delivery**
A Vila
ADVANCECELL, Spain
- 565 **Functionalized PLGA Foams for Controlled Gene Delivery: Influence of Surface Modification on Matrix-DNA Interaction**
H Nie, S Khew, L Lee, K Poh, Y Tong, C Wang
National University of Singapore, Singapore
- 567 **Gd-DTPA-Containing PLGA and PLA-PEG Particles for Imaging**
A Doiron, K Chu, L Brannon-Peppas
The University of Texas at Austin, USA
- 568 **Gm-AOT Microparticles for the Treatment of Intracellular Infections**
D González, E Imbuluzqueta, G Pérez, E Elizondo, N Ventosa, J Veciana, C Gamazo, M Blanco-Prieto
University of Navarra, Spain
- 571 **Low Residual Solvent Microparticle Formulations**
D Biggs, H Nettles, G Winchester, P Markland
Brookwood Pharmaceuticals, USA
- 572 **Methods for producing oral aqueous solution containing ubidecarenone**
S Seo, J Lee, S La, H Tan, S Kim
Boryung Pharm. Co. Ltd., South Korea
- 573 **Microspheres for Controlled Release of Biopharmaceuticals Prepared via S/O/W Emulsion**
Y Kakizawa, J Michizoe, R Nishio, M Nukiwa, N Ida
Toray Industries, Inc., Japan
- 574 **Molecular Weight Effect and Potential as a Gene Carrier of COS and LMWSC**
M Jang, J Nah
Sunchon National University, South Korea
- 575 **Multistage mesoporous silicon-based nanocarriers: Biocompatibility and controlled degradation in physiological fluids**
B Godin, J Gu, R Serda, S Ferrati, X Liu, C Chiappini, T Tanaka, P Decuzzi, M Ferrari
The University of Texas Health Science Center, USA
- 576 **Nasal Mucoadhesive Microspheres of Sumatriptan Succinate**
S Jain, D Chauk, H Mahajan, A Tekade, S Gattani
R.C. Patel College of Pharmacy, India
- 577 **Organic pH Modifier as an Aid for Improvement in Systemic Multiparticulate Delivery of Antihypertensive**
S Dhawale, A Shinde
Government College of Pharmacy, India
- 578 **Parenteral Controlled Release Risperidone - The Elimination of Burst Release Using CriticalMix Encapsulation Technology**
L Romero, P Van Hooff, T Gamble, F Jordan, A Naylor, L Illum, A Lewis
Critical Pharmaceuticals, UK
- 579 **PEG Nanogel Aggregate Particulate Drug Delivery System for Oral and Targeted Systemic Delivery**
M Deshmukh, H Kutscher, D Laskin, S Stein, P Sinko
Rutgers University, USA
- 580 **Phospholipid – Decorated Microcapsules Used As Ultrasound Contrast Agent**
R Diaz-Lopez, N Tsapis, V Nicolas, D Libong, P Chaminade, E Fattal
University of Paris Sud, France
- 581 **Poly(etherhydroxylamine) PEHAM Dendrimer Nanoparticles for Combination Therapy and Diagnostic**
S Svenson, A Chauhan, M Zhuravel
Dendritic Nanotechnologies, Inc., USA
- 583 **Preparation and Evaluation of Biodegradable Microparticles for Pulmonary Delivery**
F Yerlikaya, B Arica
Hacettepe University, Turkey
- 584 **Preparation and Evaluation of Lectin-Conjugated 5-Fluorouracil (5-FU) Loaded PLGA Microparticles for Colon Delivery**
B Arica, S Calis, K Goracinova, A Hincal
Hacettepe University, Turkey
- 586 **Preparation of Sustained Release Granules Containing Highly Water Soluble Drug and Evaluation of Tolerance to Mechanical Stress in Gastrointestinal Tract**
Y Yaginuma, N Yoshida
Asahi Kasei Chemicals Corp., Japan
- 587 **Preparation of Verapamil Microspheres by Solvent Evaporation**
S Khamanga, T Nyamuzhiwa, R Walker
Rhodes University, South Africa
- 588 **Propranolol Forms Affect Properties of Carbopol-Containing Extruded-Spheronized Beads**
S Paker-Leggs, S Neau
University of the Sciences in Philadelphia, USA
- 591 **Solid-state characterization of inclusion complexes formed between Miconazole and cyclodextrins**
A Ribeiro, A Figueiras, D Santos, F Veiga
University of Coimbra, Portugal
- 592 **Synthesis of Galactose-Poly(ϵ -caprolactone) and *in vivo* Pharmacokinetic Study**
W Lin
National Taiwan University, Taiwan

Particulate Delivery Systems (continued from previous page)

- 593 The Application of General Factorial Design Methods to Investigate Propranolol Hydrochloride Release from Microcapsules**
S Khamanga, N Parfitt, R Walker
Rhodes University, South Africa
- 594 Thermodynamic Analysis of 10-Hydroxy-Camptothecin Hydrolysis Using First Derivative Spectroscopy**
S Kunadharaju, B Sivakumar, R Thakur, M Savva
Long Island University, USA
- 595 Tunable Delayed Release of Proteins with Polymer-Inorganic Composite Microspheres**
P Pitukmanorom, J Ying
Institute of Bioengineering and Nanotechnology, Singapore
- 596 Zinc-pectinate beads for colonic delivery: Aspects from an *in-vitro/in-vivo* comparison**
C Dhalleine, A Aissaoui, B Moulari, Y Pellequer, P Cayot, A Lamprecht, O Chambin
University of Franche-Comté, France

Stem Cell Therapies and Tissue Engineering

- 597 A novel functional scaffold combined with controlled release of bone morphogenetic protein enhances stem cell-based bone regeneration after radiation therapy: An experimental study in rabbits**
M Yamamoto, A Hokugo, Y Takahashi, Y Tabata
Kyoto University, Japan
- 598 Adipose Stromal Vascular Fraction from Knee Hoffa's Body as Feed-Layer in Cartilage Tissue Engineering**
F Crovato, F Mingotto, M Bucco, T Chlapanidas, F Caviggioli, P Gaetani, M Faustini, D Vigo, M Klinger, M Marazzi, M Torre, V Sansone
University of Milan, Italy
- 599 Adipose-Derived Stem Cells for Regenerative Medicine: Yield in Stromal Vascular Fraction from Liposuction or Lumbar Resection**
M Bucco, F Caviggioli, P Gaetani, F Crovato, M Faustini, T Chlapanidas, V Sansone, P Pisano, D Vigo, M Marazzi, M Klinger, M Torre
University of Milan, Italy
- 600 Bi-phase alginate carriers for controlled release of BMP-2**
L Hyun Ju, O Eun Jung, J Kyung Moon, C Ho Yun, C Jin Hyun, G Han Do
Kyungpook National University, South Korea
- 603 Design of High Porous Composite Scaffolds for Bone Regeneration**
R Dorati, C Colonna, I Genta, T Modena, P Perugini, F Pavanetto, M Valli, B Conti
University of Pavia, Italy
- 604 Design of magnetic resonance imaging contrast agent for angiogenic therapy**
J Jo, L Xue, I Aoki, Y Tabata
Kyoto University, Japan
- 605 Development of Poly(ϵ -caprolactone)-Collagen Fibres as a Potential for Bone Tissue Engineering**
S McNeil, H Griffiths, Y Perrie
Aston University, UK
- 606 Effects of Unfocused Shock Wave Stimulation on Human Microvascular Endothelial Cell Line HMEC-1**
M D'Agostino, C Bonora, E Ungaro, M Faustini, T Chlapanidas, F Crovato, M Bucco, D Vigo, P Gaetani, M Marazzi, M Klinger, V Sansone, M Torre
University of Milan, Italy
- 607 Fabrication of Micro-patterned Surfaces by Polymer Inkjet Printing**
J Kim, Y Yun, B Lee, Y Cho
Ansan, South Korea
- 608 Fibrin hydrogels as non-viral vector delivery systems for tissue engineering applications**
A Des Rieux, A Shikanov, L Shea
Université Catholique de Louvain, Belgium
- 610 Human Fat as a Scaffold Material for Tissue Engineering**
J Choi
Medikan Co, Ltd., South Korea
- 611 Influence of Biomimetic Micro-well Substrate Topography on Intestinal Epithelial Cell Morphology, Proliferation, and Enzyme Activity**
L Wang, S Murthy, G Barabino, R Carrier
Northeastern University, USA
- 612 Inhibition of Contractile Wound Scarring by Peptide-Based siRNA-Mediated Knockdown of Connective Tissue Growth Factor**
A Cho Lee, H Yong, H Park, B O'Neil, N Gordon, M Lee, A Moon, T Park, R Langer
MIT, USA, and Duksung Women's Univ., South Korea
- 613 Macroporous hydrogel scaffolds: A platform for cell encapsulation**
E Desai, R Gemeinhart
University of Illinois-Chicago, USA
- 614 Three Dimensional Co-culture of Nucleus Pulposus Cells and Adipose Stromal Vascular Fraction for Intervertebral Disc Regenerative Therapy**
T Chlapanidas, P Gaetani, F Crovato, F Caviggioli, M Bucco, M Faustini, P Pisano, D Levi, D Vigo, M Klinger, M Marazzi, M Torre
University of Milan, Italy
- 615 VEGF-releasing scaffolds for spinal cord regeneration application**
A Des Rieux, L De Laporte, H Tuinstra, C Rives, M Zelivyanskyaya, C Ruiz De Almodovar, P Carmeliet, L Shea
Université Catholique de Louvain, Belgium

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Tumor Targeting

<p>616 A Novel Targeted Proapoptotic Drug Delivery System for Efficient Anticancer Therapy <u>P.Chandna</u>, M Saad, Y Wang, E Ber, J Khandare, A Vetcher, V Soldatenkov, T Minko Rutgers, The State University of New Jersey, USA</p>	<p>621 Combination of Novel Pro-apoptotic Agent DM-PIT-1 and TRAIL in the Same Micellar Preparation Provides Increased Cytotoxicity in both TRAIL-Resistant and TRAIL-Sensitive Cells <u>I.Skidan</u>, A Degterev, V Torchilin Northeastern University, USA</p>	<p>625 Development of Tumor-Targeted MRI Contrast Agents for the Early Detection of Ovarian Cancer <u>V.Mody</u>, M Ismail Nounou, C Karmonik, M Bikram University of Houston, Texas Medical Center, USA</p>	<p>633 Aminohexylgeldanamycin-RGDfK Conjugates for Prostate Cancer Therapy <u>M.Borgman</u>, A Ray, R Kolhatkar, A Burger, H Ghandehari University of Maryland Baltimore, USA</p>
<p>617 Anti-tumor immunity in mice following the treatment with HPMA-based copolymer conjugate of doxorubicin <u>M Sirova</u>, J Strohaln, V Subr, D Plocova, K Ulbrich, B Rihova Inst. of Microbiology ASCR, Czech Republic</p>	<p>622 Cytotoxicity of Paclitaxel in Biodegradable Self-Assembled Core-Shell PLGEOF Nanoparticles X He, J Ma, <u>A.Mercado</u>, W Xu, E Jabbari University of South Carolina, USA</p>	<p>627 Enhanced delivery of doxorubicin to cancer cells via folate coupled liposomes Y Gupta, A Jain, S Jain, <u>A.Jain</u> Dr. Hari Singh Gour Vishwavidyalaya, India</p>	<p>634 Hyaluronic Acid-Paclitaxel Conjugate Micelles: Synthesis, Characterization, and Anti-tumor Activity <u>H.Lee</u>, T Park KAIST, South Korea</p>
<p>618 Binding specificity of TCRm conjugated nanoparticles <u>B.Verma</u>, D Bhattacharya, J Weidanz, R Timmons Texas Tech University Health Sciences Center, USA</p>	<p>623 Development and Characterization of HER2-Specific Affibody-Conjugated Thermosensitive Liposomes for Improved Delivery of Therapeutic Agents to HER2-Positive Tumors <u>A.Yavlovich</u>, R Campbell-Massa, S Lee, G Kramer-Marek, S Tele, J Capala, R Blumenthal, A Puri NCI-Frederick, NIH, USA</p>	<p>628 Enhanced Targeted Tumorotoxicity and Reduced Cardiotoxicity with Bispecific Antibody-Polymer-Prodrug Complexes: <i>In Vitro</i> Studies with BT-20 Human Breast Carcinoma and Embryonic Cardiocytes <u>K.Gada</u>, V Patil, B Khaw Northeastern University, USA</p>	<p>635 <i>In vivo</i> delivery of anti-KITENIN shRNA complexed with biodegradable PEI-alt-PEG suppressed colon carcinoma established subcutaneously in mice <u>I.Park</u>, K Kim, D Jere, C Cho, I Chung Chonnam National University Medical School, South Korea</p>
<p>619 Brain Cancer Therapy in Rats Using Tumor-Suppressor Peptide, p53p-Ant <u>T.Ozeki</u> Tokyo University of Pharmacy and Life Sciences, Japan</p>	<p>624 Development of Micellar Drug Carriers for Paclitaxel Metronomic Chemotherapy Modulated by pH <u>A.Alani</u>, Y Bae, G Kwon University of Wisconsin-Madison, USA</p>	<p>629 Epirubicine-PEG-folate conjugates: The effects of folic acid and folic acid/polymer ratio on conjugates cytotoxicity and cellular uptake <u>F.Canal</u>, G Pasut, M Vicent, F Veronese, O Schiavon University of Padua, Italy</p>	<p>636 Intracellular delivery of doxorubicin to tumor cells through the M6P/IGFII receptor: A novel strategy to target cancer cells <u>J.Prakash</u>, A Harapanahalli, M Zeinstra-Smith, L Beljaars, K Poelstra University of Groningen, The Netherlands</p>
<p>620 Cellular Uptake of Leucine-Aspartate-Valine (LDV) and Its Oligomers as Targeting Ligands to Integrin alpha4 beta1 on A375 Cells S Zhong, B Jasti, <u>X.Li</u> University of the Pacific, USA</p>		<p>632 Generation of CTLs capable of targeting and injuring tumor vessels for adoptive immunotherapy <u>N.Kanagawa</u>, T Yanagawa, Y Mukai, Y Yoshioka, N Okada, S Nakagawa Osaka University, Japan</p>	<p>638 LCP-Encoded Multifunctional Polymeric Micelles for Targeted Lung Cancer Therapy <u>J.Setti Guthi</u> UT Southwestern Medical Center, USA</p>

Tumor Targeting (continued from previous page)

- 639 Mixed Immunomicelles for Delivery of Poorly Soluble Anticancer Drugs: Improved Solubilization and *In Vitro* Cytotoxicity**
R Sawant, R Sawant, V Torchilin
Northeastern University, USA
- 640 Modification of the tumor microenvironment by a plasmid encoding an antiangiogenic factor**
N Crokart, N Goncalves, L Daugimont, F Danhier, B Ucakar, B Jordan, V Gregoire, O Feron, B Gallez, V Preat
Université Catholique de Louvain, Belgium
- 641 MRI Biomarkers of Nanomedicine Transport in Solid Tumours**
S MacLellan, I Uchegbu, W Holmes, B Condon, A Schatzlein
University of London, UK
- 642 Next Generation Targeting: Multifunctionalized Nanoparticles for Enhanced Cancer Chemotherapy**
Y Patil
Wayne State University, USA
- 643 Novel Targeted siRNA Delivery Systems with the Function of pH-Sensitive Amphiphilic Endosomal Escape**
X Wang, R Xu, T Nguyen, Z Lu
University of Utah, USA
- 644 Oligomer chitosan nanocapsules for targeted delivery of docetaxel in cancer cells**
M Lozano, D Torrecilla, D Torres, A Vidal, M Alonso, F Dominguez
University of Santiago de Compostela, Spain
- 645 Paclitaxel pH-Sensitive Liposomes and Its Action on B16F10 Melanoma Cells**
H Karanth, R Gude, R Murthy
The M.S.University of Baroda, India
- 647 PEG Based Micelles as Triggered System for Selective Targeting of Drugs**
S Salmaso, F Mastrotto, P Caliceti
University of Padua, Italy
- 648 PEG-PE Micelles with Novel Poorly-Soluble Pro-apoptotic Agent: Activity *In Vivo***
I Skidan, P Dholakia, A Degterev, V Torchilin
Northeastern University, USA
- 649 Phage coat protein pVIII as a novel targeting ligand for the formulation of tumor-targeted pharmaceutical nanocarriers**
G Dsouza, T Wang, P Jayanna, V Petrenko, B Papahadjopoulos-Sternberg, V Torchilin
Northeastern University, USA
- 650 Photodynamic Therapy of B-16 Melanoma in Mice with Tumor-Targeted Meso-Tetraphenylporphin-Loaded PEG-PE Micelles**
I Skidan, P Dholakia, V Torchilin
Northeastern University, USA
- 651 Polyethylene-glycol-phosphatidylethanolamine (PEG-PE) micelles loaded with paclitaxel and surface-modified with a pro-apoptotic PBR-ligand for a synergistic anticancer effect by receptor-mediated intracellular drug delivery**
T Musacchio, V Torchilin
Northeastern University, USA
- 652 Polymeric Micelles for MRI Contrast Agent, Tumor Targeting and Imaging by Magnetic Resonance Imaging**
K Shiraishi, K Kawano, T Minowa, Y Maitani, M Yokoyama
Kanagawa Academy of Science and Technology, Japan
- 655 Some HPMA Conjugates do not Need Calreticulin to Evoke Anti-tumor Resistance**
L Kovar, T Etrych, J Strohalm, D Plocova, K Ulbrich, B Rihova
Institute of Microbiology ASCR, Czech Republic
- 656 Star-like Antibody-Targeted Polymer-Drug Conjugates**
T Etrych, L Kovar, M Šírová, B Rihová, K Ulbrich
Institute of Macromolecular Chemistry, Czech Republic
- 657 Surface modification of pharmaceutical nanocarriers with ascorbate residues as a novel approach for tumor cell targeting and killing**
G Dsouza, T Wang, M Toniutti, K Rockwell, V Torchilin
Northeastern University, USA
- 658 Targeted photothermal ablation effect of hollow gold nanoshells in tumor-bearing mice**
W Lu, C Xiong, G Zhang, Q Huang, R Zhang, Z Cheng, C Li
The University of Texas M. D. Anderson Cancer, USA
- 659 Targeting Antivascular Drugs to Irradiated Tumor Vasculature**
E Donelson, B Venegas, C Pattillo, L Knight, P Chong, M Kiani
Temple University, USA
- 660 The effect of HPMA drug based therapy on the local tumor microenvironment**
O Hovorka, D Vetvicka, R Joskova, E Baumgartnerova, K Ulbrich, B Rihova
Institute of Microbiology ASCR, Czech Republic
- 661 The Uptake Mechanism of Liposomes by Breast Cancer Cells Induced by Low Electric Fields**
A Nishi, S Kubo, F Ohashi, N Fujiwara, H Terada, M Haga
Tokyo University of Science, Japan
- 662 Transferrin Coupled Liposomes for Brain Targeting of 5-Fluorouracil**
A Jain, V Soni, P Jain
Dr. H. S. G University, India

Poster Session II • Rhinelander Gallery

Tuesday, July 15

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Vaccines

- 663 *In vivo* investigation of a thermosensitive chitosan hydrogel as a sustained release vaccine delivery system**
S Gordon, A Saupe, W McBurney, T Hennessy, T Rades, S Hook
University of Otago, New Zealand
- 664 *In-vitro* activity of phytantriol cubosomes containing the adjuvants imiquimod or monophosphoryl lipid A in bone marrow derived dendritic cells**
S Rizwan, W McBurney, T Rades, S Hook
University of Otago, New Zealand
- 665 Alginate Coated Chitosan Nanoparticles Are an Effective Subcutaneous Adjuvant for Hepatitis B Surface Antigen**
O Borges
University of Coimbra, Portugal
- 666 An Innovative Transcutaneous Vaccination System Using a Hydrogel Patch Formulation**
Y Ishii, N Okada, Y Quan, F Kamiyama, Y Mukai, Y Yoshioka, S Nakagawa
Osaka University, Japan
- 667 Chitosan Derivatives for Nasal Immunization: Particulates vs. Aqueous Dispersions**
B Sayin, S Somavarapu, X Li, D Sesardic, O Alpar, S Senel
Hacettepe University, Turkey
- 668 Delivery of Foreign Antigen Vaccines by Recombinant Outer Membrane Vesicles**
D Chen, S Metzger, N Osterrieder, D Putnam
Cornell University, USA
- 669 Engineering a Trimeric CD40 Ligand for Vaccine Delivery to Dendritic Cells**
N Palumbo, L Nagarajan, C Wang
University of Minnesota, USA
- 670 Immunosuppressive vaccine via transcutaneous immunization**
N Ohmori
Josai International University, Japan
- 671 Mechanistic Insights into Stratum Corneum Hydration and Implications to Transcutaneous Vaccine Antigen Penetration**
G Tan, P Xu, L Lawson, J He, L Freytag, J Clements, V John
Tulane University, USA
- 672 Microsphere-Adjuvant Combinations to Improve Tuberculosis Vaccine Efficacy**
D Kirby, V Bramwell, Y Perrie
Aston University, UK
- 673 Nanoparticulate systems targeted to M cells with new non-peptidic analogs**
V Fievez, L Plapied, M Garinot, V Pourcelle, F Stoffelbach, A Des Rieux, C Jérôme, J Marchand, Y Schneider, V Pr at
UCL, Louvain-la-Neuve, Belgium
- 674 Pharmaceutical and immunological evaluation of alginate-PLGA microspheres containing synthetic peptides**
E Mata, M Igartua, R Hernandez, J Rosas, P Manuel, J Pedraz
University of Basque Country, Spain
- 675 Production of immuno-stimulating microspheres by complex coacervation**
R Azhari, A Bernstein, D Levin
ORT Braude College, Israel
- 677 Separable Dissolving Microneedles for Rapid Vaccine Delivery to Skin**
L Chu, M Prausnitz
Georgia Institute of Technology, USA
- 678 Single Shot Vaccine Manufactured by NanoMix is as Effective as Multiple Doses of an Alum Adsorbed Vaccine**
A Baxendale, R Bradley, O Davies, M Whitaker, A Naylor, A Lewis, S Howdle, I Spendlove, L Durant
Critical Pharmaceuticals, UK
- 679 TLR-2 agonist functionalized biopolymer for mucosal vaccination**
A Iannitelli, S Heuking, A Di Stefano, G Borchard
University of Geneva, Switzerland
- 680 Use of Carbohydrates in the Development of Synthetic Vaccines**
P Simerska, A Abdel-Aal, Y Fujita, W Zhong, M Batzloff, M Good, I Toth
University of Queensland, Australia

Poster Session III • Rhinelander Gallery

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Wednesday, July 16

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Cellular Delivery

- 681 Anti-CD20-HPMA copolymer conjugate radiopharmaceuticals**
V Subr, M Hruby, K Kynclova, L Kronrad, K Ulbrich
Institute of Macromolecular Chemistry v.v.i., Czech Republic
- 682 Artificial antigen-presenting polymeric microparticles for T cell stimulation**
T Fahmy, E Steenblock
Yale University, USA
- 683 Cellular Trafficking Studies of Ceramide-Loaded Poly(ethylene oxide)-Modified Poly(epsilon-caprolactone) Nanoparticles with Raman Microscopy**
L Milane
Northeastern University, USA
- 686 Enhancing the Intracellular Release of siRNA with Biodegradable Poly(ethylene imine) as Carrier System**
M Breunig, C Hozsa, U Lungwitz, A Goepferich
University of Regensburg, Germany
- 688 Fate and Intracellular Trafficking of Novel Lipid-Targeting Peptide Complexes for Gene Delivery**
L Kudsiova, M Lawrence
King's College London, UK
- 689 Influence of Pharmaceutical Surfactants as Modulators of the Efflux Transporter P-Glycoprotein**
M Leonhardt
University of Greifswald, Germany
- 690 Investigation of Rivastigmine Transport Through Human Colon Carcinoma Cells, CACO-2**
N Mutlu, Z Degim, S Yilmaz, D Essiz, L Altintas, G Gunkaya
Gazi University, Turkey
- 691 Model of Transfection Efficiency Using Ultrasonic-Enhanced Gene Transfection**
W Pitt, B Memmott, G Husseini
Brigham Young University, USA
- 692 Modeling Phase Transitions of Nanoemulsion for Ultrasonic Gene Delivery**
W Pitt, R Singh, G Husseini
Brigham Young University, USA
- 693 Non Cytotoxic and Efficient DNA Delivery Using pH-Sensitive Polymersomes**
G Battaglia
University of Sheffield, UK
- 694 Novel Peptide Transporters in Human Nasal Epithelium for Drug Targeting**
R Agu
Dalhousie University, Canada
- 695 PEGylated PLGA nanoparticles for cellular drug delivery**
S Pamujula, S Hazari, G Bolden, R Graves, D Devanga-Chinta, S Dash, V Kishore, T Mandal
Xavier University College of Pharmacy, USA
- 696 PEGylation of Anionic PAMAM Dendrimers: Implications for Oral Delivery**
D Sweet, R Kolhatkar, H Ghandehari
University of Maryland, USA
- 697 pH Sensitive Polymersomes for Efficient Cytosolic Delivery of RNA**
G Battaglia
University of Sheffield, UK
- 698 Reducible r9 Polyplex Enhances Gene Expression**
Y Won, S Lee, M Lee, Y Kim
Hanyang University, South Korea
- 699 Riboflavin-Targeted Polymer Conjugates for Delivery of Mitomycin C**
L Bareford, A Ray, A Nan, H Ghandehari, P Swaan
University of Maryland, USA
- 700 The Cleavage of HIV-I TATp in Human Plasma by Protease Activity**
J Grunwald, T Rejter, V Torchilin
Northeastern University, USA
- 701 Tolerability Evaluation of PX-13 and PX-18 in Primary Human Fibroblasts and Keratinocytes Monolayer Cell Cultures**
J Pardeike, R Müller
Free University of Berlin, Germany

Poster Session III • Rhinelander Gallery

Wednesday, July 16

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Implantables and Injectables

<p>702 Amino acid-based organogelators for the preparation of injectable implants <u>G Bastiat</u>, A Vintiloiu, J Leroux University of Montreal, Canada</p>	<p>705 Degradation and Sustained Release from Injectable, Bioresorbable, Thermosensitive Copolymer, Poly(NIPAAm-co-dimethyl-gamma-butyrolactone acrylate-co-acrylic acid) <u>Z Cui</u>, B Lee, B Lunt, B Vernon Arizona State University, USA</p>	<p>708 Ethylene-vinylacetate Intravaginal Rings for Zero-Order Release of an Antiretroviral Drug <u>A Loxley</u>, A Ghokale, Y Kim, J O'Connell, M Mitchnick Particle Sciences Inc., USA</p>	<p>712 Target Specific Intracellular Delivery of siRNA Complexed with PEI-HA Conjugate <u>S Hahn</u>, G Jiang, K Park, J Kim POSTECH, South Korea</p>
<p>703 Controlled Release of Nalmefene from a Biodegradable Injectable Drug Delivery System: In-Vivo Drug Release Optimization <u>B Jiang</u>, Y Peng, Y Sun, W Qu, J Johnson, A Shukla Frontage Laboratories, Inc., USA</p>	<p>706 Drug Eluting Beads in the Treatment of Glioma <u>A Lewis</u> Biocompatibles UK Ltd., UK</p>	<p>709 Formulation and Characterization of Biodegradable Microspheres Encapsulating Zidovudine <u>M Shah</u> Long Island University, USA</p>	<p>713 Temperature-responsive and photo-crosslinkable chitosan/pluronic hydrogels for anti-cancer therapy <u>Y Cho</u>, H Yoo Kyunghee University, South Korea</p>
	<p>707 Effects of nano-hydroxyapatite on poly (lactide-co-glycolide) degradation as an <i>in-situ</i> forming implant <u>M Enayati</u>, H Mobedi, H Mirzadeh, S Hojjati-Emami Amirkbair University of Technology (AUT), Iran</p>	<p>711 Microparticles in Eureka Hydrogel Filaments: Sustained Delivery and Mechanical Properties <u>J Slager</u>, J Duffney, G Winchester, P Markland, R Hergenrother SurModics, USA</p>	<p>714 Thermosensitive injectable implants: A good candidate for long term controlled delivery of protein <u>Y Tang</u>, <u>J Singh</u> North Dakota State University, USA</p>

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<p>715 Comparison of different methods for the preparation of ferrofluids and magnetoliposomes <u>L Hermida</u> Instituto Nacional de Tecnología Industrial, Argentina</p>	<p>718 Microemulsion-based nanoparticles loaded with insulin A Graf, K Jack, A Whittaker, S Hook, <u>T Rades</u> University of Otago, New Zealand</p>	<p>721 Poly(ethyleneimine) Nanoprobes for Magnetic Resonance and Multiple Molecular Imaging <u>J Choi</u> Kyungpook National University, South Korea</p>	<p>723 Preparation of N-Isopropylacrylamide Hydrogel-Coated Gold Nanorods <u>A Shiotani</u>, T Kawano, T Mori, Y Niidome, Y Katayama, T Niidome Kyushu University, Japan</p>
<p>716 Formulation and Stability Aspects of Gas-Filled Liposomes: An Effective Aid To Extract Earth's Oil? A Vangala, <u>Y Perrie</u> Aston University, UK</p>	<p>719 Nanocrystal production by smartCrystal combination technology <u>S Kobierski</u> The Free University of Berlin, Germany</p>	<p>722 Preparation and Evaluation of Nanosuspensions from Thiolated Polymers via High Pressure Homogenization <u>W Schlocker</u>, H Hoyer, A Bernkop-Schnürch Institute of Pharmacy, Austria</p>	<p>724 Taste Masking of Sodium Chloride in Beverages Using Nanolipidic Particle Technology <u>M Fountain</u>, K Miller Dermazone Solutions, USA</p>
	<p>720 One-Step Preparation of Polyelectrolyte-Coated PLGA Nanoparticles <u>S Bravo</u>, S Ruetti, H Merkle, B Gander ETH Zurich, Switzerland</p>		

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- 726 Active Targeting of Liposomes with the B-Chain of Mistletoe Lectin 1**
V Bunjes, K Winkler, R Peschka-Suess, R Schubert
University of Freiburg, Germany
- 727 Amphiphilic poly-N-vinylpyrrolidones as alternative coatings for long-circulating liposomes**
M Shtilman, A Kuskov, V Torchilin, A Tsatsakis
D.I. Mendeleev University of Chemical Technology of Russia, Russia
- 728 An investigation into the drug-lipid interactions in Gelucire 50/13 based solid dispersions**
S Qi, D Craig, M Reading
University of East Anglia, UK
- 729 Antimicrobial Activity of Controlled Release Liposomal Tea Tree Oil Formulations**
U Bhujbal, M Kenward, C Martin
University of Wolverhampton, UK
- 730 Assessment of Suitability of Solid Lipid Nanoparticles (SLN) for Incorporation of Miconazole**
A Silva
University of Porto, Portugal
- 731 Bio-inspired symmetrical lipids for controlled drug delivery**
S Yazdi, D Putnam
Cornell University, USA
- 732 Cationic Liposomes Containing a DOPE-Hyaluronate Conjugate for Gene Delivery**
S Arpicco, C Surace, V Marsaud, C Bouclier, M Renoir, L Cattel, E Fattal
Università degli Studi di Torino, Italy
- 733 Cell survival studies in multi-drug resistant MES-SA/Dx5 cells treated with submicron emulsion formulations of Doxorubicin, with or without Cyclosporin A**
N Das, S Rafique, S Das
Butler University, USA
- 734 Ceramide Doped Tubular Liposomes and Its Templating to Form Silica Nanoparticles**
P Xu, G Tan, L Lawson, J He, L Freytag, J Clements, V John
Tulane University, USA
- 735 Changes in controlled release matrix of soft gelatin capsules due to mechanical forces**
K Madrigal
Banner Pharmacaps, USA
- 736 Characterisation of Wax Granules Containing Ibuprofen Produced by a Hot-Melt Spray System**
G Coombs, H Stevens, B Thorne, A Mullen
University of Strathclyde, UK
- 737 Characterisation, swelling and release from liquid crystalline systems of phytantriol and glycerylmonooleate as platforms for controlled release of bioactives**
S Rizwan, B Boyd, T Rades, S Hook
University of Otago, New Zealand
- 738 COHOGM - A Novel Membrane Anchor Molecule for the Preparation of Membrane Skeleton Liposomes**
C Zimmer, E Breitling, M Müller, A Neub, R Schubert
Albert-Ludwigs University, Germany
- 739 Controlled release formulation of liposomal tea tree oil**
U Bhujbal, M Kenward, C Martin
University of Wolverhampton, UK
- 740 Controlled release of liquid pharmaceutical active ingredients in soft gelatin capsules compared to immediate release dosage form**
K Madrigal
Banner Pharmacaps, USA
- 741 Cytotoxic Effect of Methotrexate-Loaded Microemulsion on Human Breast, Ovarian and Prostate Carcinoma Cell Lines**
Y Karasulu, G Kantarci, B Karaca, T Guneri
Ege University, Turkey
- 742 Delivery of Interleukin 18-Encoding Plasmid DNA to Lung Cancer Cells Using Cationic Emulsion**
H Kang, S Jin, J Kim, S Hwang, J Park
Chungnam National University, South Korea
- 743 Design, Synthesis, Biophysical Characterization and *In Vitro* Transfection Activity of Novel Bivalent Amine Cationic Lipids**
A Donkor, M Savva
Long Island University, USA
- 744 Development of novel vehicles for topical glucocorticoid formulation: An *in vitro* and *in vivo* evaluation**
J Bae, K Hong, S Jeong, B Park, S Lee
NeoPharm Co., Ltd., South Korea
- 745 Dodecaborate Cluster Lipids in Liposome Preparations for Use in Boron Neutron Capture Therapy**
A Burghardt, T Schaffran, D Gabel, R Peschka-Suess, R Schubert
Albert-Ludwigs University, Germany
- 747 Effect of Hydrophobic Drug Properties on Liposomal Loading**
H Ali, A Mohammed, Y Perrie
Aston University, UK
- 748 Effects of Liposomal Surface Charge on Human Platelet Aggregation**
M Gaspar, F Menezes, M Radomski, C Ehrhardt
Trinity College, Ireland
- 749 Enhancement of the Intestinal Absorption of Orlistat, a Lipophilic Drug with Anticancerous Properties, by Using Lipid-Based Systems**
P Sae Houer, M Guhmann, J Correia, T Vandamme
University Louis Pasteur Strasbourg, France
- 750 Evaluation of *In-Vitro* and *In-Vivo* Activity of Etoposide Lipid Nanocarriers**
R Athawale, K Singh, R Gude
S.N.D.T Women's University, India
- 752 Formulation and Evaluation of Liposomal Drug Delivery System for L-Asparaginase**
S Murugappan
J.S.S. College of Pharmacy, India
- 753 Formulation Development of Nano-Liposomes for Sustained and Targeted Dermal Delivery of a Glucocorticoid**
M Madan, A Bajaj, N Amrutiya
S.N.D.T Women's University, India
- 754 Function of micro- and nano- emulsion based drug delivery systems in the intestinal environment: Permeability enhancement, digestion kinetics and drug release**
F Buyukozturk
Northeastern University, USA
- 755 Fusion Studies of Charged Heterogeneous Membranes: Effect of pH and Cholesterol**
M Bhagat, S Sofou
Polytechnic University, USA

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S McNeil, A Mohammed, Y Perrie
Aston University, UK
- 758 Histone Deacetylases Inhibitors Loaded Liposomes: A Preliminary Study for an Active Drug Targeting Delivery System**
G Urbinati, C Bouclier, M Besnard, V Marsaud, E Fattal, J Renoir
Paris-Sud University, France
- 759 In Vitro Drug Release from Liposomes by Low-Frequency Ultrasound - A Closed Form Model**
G Enden, A Schroeder
Ben-Gurion University of the Negev, Israel
- 760 In-Vitro and In-Vivo Correlations of Type IV Lipid-Based Formulations Developed for a Class II Active Compound**
A Igonin, J Vertommen, H Benameur
Capsugel France, France
- 761 Inclusion Complex of b-Lapachone in Hydroxypropyl-b-cyclodextrin and Its Encapsulation into Liposomes**
E Mendonça, I Barbosa, I Cavalcanti, C Câmara, R Amorim, N Santos-Magalhaes
Universidade do Estado da Paraíba, Brazil
- 763 Influence of Size, Charge, Shape, and Route of Liposomes Administration on Their Cellular Uptake, Tumor and Organ Distribution in Mice**
O Garbuzenko, M Zhang, M Saad, S Betigeri, E Ber, T Minko
Rutgers, The State University of New Jersey, NJ, USA
- 764 Inhaled Cationic Liposomes of Low Molecular Weight Heparin in the Treatment of Venous Thromboembolism**
S Bai, F Ahsan
Texas Tech University Health Sciences Center, USA
- 765 Inhibition of metastasis of MT3 breast cancer in a mouse xenograft model by treatment with liposomes to reduce complex formation between tumour cells and platelets**
R Zeisig, J Wenzel, I Fichtner
Max-Delbrück-Center for Molecular Medicine, Germany
- 766 Inorganic Apatite-Liposome Complex: Novel Hybrid Carrier for mRNA Based Gene Delivery**
F Zohra, E Chowdhury, T Akaike
Tokyo Institute of Technology, Japan
- 767 Intracellular delivery of DNA mediated by novel cationic cholesterol-based amphiphiles**
M Kearns, S Achempong, M Savva
Long Island University, USA
- 768 Investigation of Different Lipid-Based Systems Designed to Enhance the Oral Bioavailability of Lipophilic Drugs**
M Guhmann, J Correia, P Sae Houer, T Vandamme
University Louis Pasteur Strasbourg, France
- 769 Lipid-based liquid crystalline nanoparticles for peptide, protein and small molecule parenteral drug delivery**
C Cervin, P Vandoolaeghe, C Nistor, A Norlin, F Tiberg, M Johnsson
Camurus AB, Sweden
- 770 Liposomal Vasoactive Intestinal Peptide for Lung Application: Protection from Proteolytic Degradation**
R Prassl
Austrian Academy of Sciences, Austria
- 771 NMR self diffusion and skin permeation of selected fluorinated drugs: Influence of phospholipids composition**
C Valenta
University of Vienna, Austria
- 772 pH-Triggerable Lipid-Based Drug Carriers**
A Alaouie, A Bandekar, S Sofou
Polytechnic University, India
- 773 Pharmacokinetic behaviour of edelfosine and its encapsulation in lipid nanoparticles**
A Estella, M Campanero, F Mollinedo, M Blanco-Prieto
University of Navarra, Spain
- 774 Physicochemical characterisation of liposomes for aerosol delivery**
M Gaspar, C Ehrhardt
Trinity College Dublin, Ireland
- 775 Preliminary Evaluation of Glibenclamide Suppositories Based on Solidified Reverse Micellar Solution (SRMS)**
A Attama, U Okoro
University of Nigeria, Nigeria
- 776 Preparation and Characterization of Ibuprofen Self-Emulsified Drug Delivery System (IBSEDDS) to Enhance Solubility and Dissolution**
A Zaghoul, A Nada, I Khattab, S Al-Saidan
Kuwait University, Kuwait
- 777 Preparation and Evaluation of Pioglitazone Microemulsion for Intranasal Delivery in Alzheimer's Disease**
D Patel, N Surti, A Paranjpe, V Patel
Baroda College of Pharmacy, India
- 778 Simple Method for Preparation of Solid Lipid Nanoparticles With High Entrapment Efficiency of Hydrophilic Drugs**
R Patil, P Devarajan
Institute of Chemical Technology, India
- 779 Solubilization and Release Patterns of Sodium Diclofenac into Monoolein/Ethanol/Water Delivery Systems**
R Efrat, A Aserin, N Garti
The Hebrew University of Jerusalem, Israel

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- 780 Structure-Activity Relationships of Novel Cationic Lipids for Gene Delivery**
M Spelios, N Kamal, M Savva
 Long Island University, USA
- 781 Surface charge-modified PEG-liposomes for enhancement of cellular uptake and anti-tumor activity**
H Seong, S Jung, S Kim, S Jung, D Lim, E Kim, S Cho, B Shin
 Korea Research Institute of Chemical Technology, South Korea
- 782 Targeted delivery of colchicine derivatives to destroy tumor vasculature**
 M Fens, K Hill, J Issa, S Ashton, R Westwood, D Blakey, G Storm, A Ryan, R Schiffelers
 Utrecht University, The Netherlands
- 783 The effect of helper lipids on the interaction of DNA with monolayers studied by neutron scattering techniques**
A Dabkowska, J Lawrence, D Barlow, P Quinn, A Hughes
 King's College London, UK
- 784 Trans-2-aminocyclohexanol as a Conformational Switch for pH-Sensitive Liposomes**
X Guo, N Zhang, B Brazdova, V Samoshin
 University of the Pacific, USA
- 785 Using Langmuir Monolayer Studies to Compare Tetradecanol and Cholesterol as Bilayer Stabilisers**
 H Ali, D Kirby, A Mohammed, Y Perrie
 Aston University, UK

Molecular Conjugates

- 786 In Vitro Studies of a Novel Ibuprofen 3-Hydroxybutyric Acid Conjugate**
P Stasiak, S Endter, C Ehrhardt, M Sznitowska
 Trinity College Dublin, Ireland
- 787 Effect of Polymer and its Molecular Weight on the In Vitro Cytotoxicity of Ribonuclease Conjugates**
B Treetharnmathurot
 Prince of Songkla University, Thailand
- 788 Engineering Transferrin for Cancer Targeting Using Kinetic Modeling and Site-Directed Mutagenesis**
 D Yoon, D Chu, C Ng, E Pham, A Mason, V Smith, R MacGillivray, D Kamei
 UCLA, USA
- 789 Hyaluronic Acid-Modified Liposomes: Preparation and Preliminary Biological Characterization**
 S Arpicco, B Stella, E Fattal, S Bolognesi, L Cattel
 University of Turin, Italy
- 791 PEGylated oligonucleotide duplexes and their self-assemblies with polyamidoamine dendrimers**
M Elsabahy
 University of Montreal, Canada
- 792 Supramolecular Control of pDNA Delivery to Cell Nuclei and Translation: Efficacy of Amine Groups on Biocleavable Polyrotaxanes**
 A Yamashita, D Kanda, R Katoono, N Yui, T Ooya, A Maruyama, H Akita, H Harashima
 Japan Advanced Institute of Science and Technology, Japan

Nanoparticles

- 793 A Novel Micelle-like Nanoparticle (MNP) for In Vivo Gene Delivery**
Y Ko, A Kale, L Bhave, V Torchilin
 Northeastern University, USA
- 794 A Simple, Rapid HPLC Method of Analysis of Chemopreventive Agents Released from Colon-Targeted Nanoparticles**
A Chaudhary, J Wang, S Prabhu
 Western University of Health Sciences, USA
- 795 Analysis of Drug Pharmacokinetics and Pharmacodynamics by PET Imaging: Novel Method for the Development of Nanocarrier-Related Drugs**
Y Katayama, T Urakami, S Akai, A Kawaguchi, N Harada, H Tsukada, N Oku
 University of Shizuoka, Japan
- 796 Antineovascular therapy by using dual-targeting liposomes**
Y Murase, Y Katanasaka, T Asai, N Maeda, T Tanaka, N Oku
 University of Shizuoka, Japan
- 797 beta-Lapachone Micellar Nanotherapeutics for Lung Cancer Treatment**
 E Blanco, E Bey, D Boothman, J Gao
 University of Texas Southwestern Medical Center at Dallas, USA
- 798 Biodistribution Study of Nanoparticle-Bound Rifabutin**
S Gelperina
 Research Center for Molecular Diagnostics and Therapy, Russia

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- 800 Biorecognition of Lectin-Immobilized Fluorescent Nanospheres with Surface Poly(N-vinylacetamide) Chains, against Various Human Colorectal Cancer Cells**
S Sakuma, K Hiwatari, T Yano, Y Masaoka, M Kataoka, H Tachikawa, Y Shoji, R Kimura, S Yamashita
Setsunan University, Japan
- 801 Camptothecin-loaded solid lipid nanoparticles for brain delivery**
S Martins, D Ferreira, E Souto, M Brandl
University of Porto, Portugal
- 802 Carbon Nanotubes as Drug Delivery Systems**
I Degim, X Xu, A Rawat, D Burgess
University of Connecticut, USA
- 804 Chitosan nanobubbles as oxygen delivery system for the treatment of hypoxic tissues**
R Cavalli
Università di Torino, Italy
- 805 Comparison of physicochemical stability of three novel paclitaxel formulations: Abraxane, Nanoxel, and Genoxel PM**
T De, J Cordia, A Yang, P Nguyen, S Ci, N Desai
Abraxis BioScience, LLC, USA
- 806 Comparison of toxicity and antitumor activity of different paclitaxel formulations: Abraxane, Nanoxel and Taxol**
N Desai, V Trieu, O D'Cruz
Abraxis BioScience, LLC, USA
- 808 Development and Characterization of Nanoparticulate Drug Delivery System Containing Tamoxifen Citrate**
M Kamila
Jadavpur University, India
- 809 Development and Clinical Evaluation of Nanoparticles of Ca-Disodium-EDTA as a Diagnostic Tool for Ventilation Lung Scintigraphy**
N Kumar
Institute of Nuclear Medicine and Allied Sciences (INMAS), India
- 810 Development of Angiogenic Vessel-Targeted Polycation Liposomes for Delivering Small Interfering RNA**
S Matsushita, T Asai, Y Suzuki, T Ishida, N Maeda, T Dewa, H Kiwada, M Nango, N Oku
University of Shizuoka, Japan
- 811 Development of novel polycation liposomes for gene transfer system**
K Niwata, T Asai, T Dewa, M Nango, N Oku
University of Shizuoka, Japan
- 812 Direct detection of absolute protein content and drug release of PLGA-nanoparticles by spectrophotometry and fluorimetry**
M Holzer, T Pisternick, V Vogel, K Langer
Johann Wolfgang Goethe-University, Germany
- 813 Dissolution Velocity of Coenzyme Q10 Nanocrystal-Loaded Capsules**
R Mauludin, S Kobierski, J Knauer, R Müller
Free University of Berlin, Germany
- 815 Effect of Particle Size on the Deposition of Magnetic Aerosol Particles**
Y Xie, Y Xu, J Wang, B Hammer, T Wiedmann
University of Minnesota, USA
- 816 Efficiency and Skin Irritation Potential of Solid Lipid Nanoparticles (SLN) and Dendritic Core-Multishell Nanocarriers**
S Kuchler, M Radowski, R Haag, M Schäfer-Korting
Free University Berlin, Germany
- 817 Evaluation of the Potential Interaction of Biodegradable Micro and Nanoparticles with Human Platelets**
P Lyons, K Keohane, K Farrington, F Bushager, B Kirby, S Kerrigan, Z Ramtoola
RCSI, Ireland
- 818 Fe3O4 encapsulated polyaspartamide derivative nanoparticle**
H Kim, D Kim
Sungkyunkwan University, South Korea
- 819 Formulation and Characterization of Blank Poly(Caprolactone) (PCL) Nanoparticles for Pulmonary Delivery**
F Yerlikaya, B Arica
Hacettepe University, Turkey
- 823 Formulation and Preliminary Characterization of Drug-free and Didanosine-Loaded Solid Lipid Nanoparticles (SLN)**
K Wa Kasongo, R Walker
Rhodes University, South Africa
- 825 Gene Delivery Using Biodegradable Ovalbumin-Poly(L-Lysine) Complexes**
C Chiang, C Chen, J Chen
National Defense Medical Center, Taiwan
- 827 In Vivo Delivery of Bio-nanocapsules Displaying L4-PHA Isolectin to Malignant Tumors Overexpressing N-Acetylglucosaminyl-transferase V**
T Kasuya, J Jung, H Kadoya, T Matsuzaki, K Tatematsu, T Okajima, E Miyoshi, K Tanizawa, S Kuroda
Osaka University, Japan
- 828 In vivo whole body imaging with a new lipid core micelle-based near infrared imaging agent**
A Papagiannaros, A Kale, D Chovatia, T Levchenko, W Hartner, D Mongayt, V Torchilin
Northeastern University, USA
- 829 Intranasal Delivery of Insulin Using a Microemulsion System**
A Sintov
Ben Gurion University of the Negev, Israel
- 832 Lipid Nanoparticles of Prednisolone with Improved Efficacy**
P Sachan
C. U. Shah College of Pharmacy, India

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L Depieri, F Rossetti, M Fantini, A Tedesco, M Bentley
University of Sao Paulo, Brazil
- 835 Model vaccine release profile from different chitosan-based nanoparticles**
O Borges
University of Coimbra, Portugal
- 836 Mucosal transport studies on the excised tissue model**
E Pearson, K Okubo, A Mistry, K Minomi, C Roberts, M Davies, L Illum, S Stolnik
University of Nottingham, England
- 837 Nanocarrier based on Polyelectrolyte Multilayers for Photodynamic Therapy**
M Schneider, N Reum, K Loew, A Wiehe, H Von Briesen, C Lehr
Saarland University, Germany
- 839 Nanostructured Lipid Carriers (NLC): Efficient Formulation to Stabilize Retinol**
A Hommoss, R Müller
Free University Berlin, Germany
- 840 New Formulation of Dual Agent Solid Polymer-Lipid Hybrid Nanoparticles: Exploitation of the Anti-cancer Synergy of Doxorubicin and Mitomycin C against Multidrug Resistant Human Breast Cancer Cells**
A Shuhendler, A Connor, A Rauth, X Wu
University of Toronto, Canada
- 841 New Shapes for Drug Delivery: Persistent Circulation of Filomicelles Opens the Dosage Window for Sustained Tumor Shrinkage**
D Discher
University of Pennsylvania, USA
- 842 Novel amphiphilic N-vinylpyrrolidone polymers – nano-scaled assemblies formation and interaction with blood components**
I Shashkova, A Kuskov, A Goryachaya, M Shtilman
D.I. Mendeleev University of Chemical Technology of Russia, Russia
- 843 Novel cationic solid lipid nanoparticles enhanced p53 gene transfer to lung cancer cells**
S Choi, S Jin, E Ban, S Kim, Y Choi, C Kim
Seoul National University, South Korea
- 844 Novel pH-responsive amphiphilic imidazole-containing polyaspartamide derivatives for anticancer drug delivery**
D Kim, K Seo
Sungkyunkwan University, South Korea
- 845 Physicochemical and pharmacokinetic evaluation of amorphous atrovastatin hemicalcium**
S Hwang, J Kim, M Kim, H Park
Chungnam National University, South Korea
- 846 Physicochemical Characteristic of Lyophilized Coenzyme Q10 Nanocrystals**
R Mauludin, A Hommoss, J Knauer, R Müller
Free University of Berlin, Germany
- 848 Polyelectrolyte complexed nanoparticles deliver insulin for oral dosage form**
C Voitiski, R Neufeld, A Ribeiro, F Veiga
University of Coimbra, Portugal
- 852 Preparation and characterization of poly lactide-co-glycolide nanoparticles of SN-38**
P Ebrahimnejad
Tehran University of Medical Sciences, Iran
- 856 Preparation and Functional Analyses of Water-Dispersed Carbon Nanohorns for Cancer Chemotherapy**
T Murakami, H Sawada, M Yudasaka, S Iijima, K Tsuchida
Fujita Health University, Japan
- 858 Self-assembly of recombinant oligopeptides into vesicles**
A Van Hell, W Jiskoot, D Crommelin, W Hennink, E Mastrobattista
Utrecht University, The Netherlands
- 859 Significant Enhancement of Cyclosporine Oral Bioavailability by Water Soluble Chitosan Amphiphiles**
A Siew
University of London, UK
- 860 Simple and Reproducible Ion-Pair HPLC Assay for Determination of SN-38 in Nanoparticles**
P Ebrahimnejad
Tehran University of Medical Sciences, Iran
- 861 SPIO and Doxorubicin Encapsulated Polymeric Micelles for Ultrasensitive MR Imaging and Drug Delivery: Effect of SPIO Size on MR Sensitivity and Doxorubicin Loading**
S Yang, C Khemtong, C Barcena, J Gao
UT Southwestern Medical Center, USA
- 863 Stability of Anti-inflammatory Agents in Stealth Nanoparticles**
X Lu, M Howard, J Rinehart, M Leggas, M Jay
University of Kentucky, USA
- 865 Sub-100nm transmucosal nanoparticle transport deviation from the Stokes-Einstein equation**
N Walji, N Quirke, M Thanou
Imperial College London, UK
- 866 Sustained Gene Silencing Using PLGA-PEI Nanoparticles**
J Panyam, Y Patil
University of Minnesota, USA
- 867 Targeted Delivery of SU5416 and Antiangiogenic Cancer Therapy Using Tumor Vasculature-Targeted Liposomes**
T Ida, Y Katanasaka, K Shimizu, T Asai, N Maeda, K Baba, N Oku
University of Shizuoka, Japan
- 868 Targeting breast cancer cells via HER-2-mediated endocytosis**
S Wuang, K Neoh, E Kang, D Pack, D Leckband
University of Illinois at Urbana-Champaign, USA
- 869 The Use of MALDI TOF Mass Spectrometry to Identify Co-polymerization in PACA Nanoparticles**
A Kafka, T Kleffmann, T Rades, A McDowell
University of Otago, New Zealand
- 870 The Use of Reconstructed Human Epidermis for the Evaluation of the Skin Irritation Potential of PX-13 and PX-18 Nanosuspension**
J Pardeike, R Müller
The Free University of Berlin, Germany

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O Taratula, P Kirkpatrick, R Savla, I Pandya, T Minko, H He
Rutgers, The State University of New Jersey, USA
- 876 Water-soluble vitamins loaded in biodegradable nanoparticles**
M Stevanovic
Institute of Technical Sciences of the Serbian Academy of Sciences and Arts, Serbia

Novel Biomaterials

- 877 Affinity-Based Control of Antibiotic Release**
D Overstreet, T Sill, H Von Recum
Case Western Reserve University, USA
- 878 Anticancer Activity and DDS Application of Green Tea Polyphenol Derivatives**
S Hyon
Kyoto University, Japan
- 879 Biocompatibility and Biodegradation of PEG-Based Fumarate Hydrogels for Gene Delivery: *In Vivo* Studies**
M Dadsetan, S Ameenuddin, B Currier, A Windebank, M Yaszemski
Mayo Clinic, USA
- 880 BIOROD - Bioadhesive Based Oral Delivery System**
A Nangia
Spherics, Inc., USA
- 881 Chitosan tube-shaped scaffold for bile duct reconstruction**
R Tozzi, A Romani, P Soliani, A Borghetti, R Bettini
University of Parma, Italy
- 882 Clean Label Encapsulation: Whey Protein - from Tailored Release to Enteric Coatings**
I Bodnar, F Weinbreck, F Van De Velde
NIZO Food Research, The Netherlands
- 883 Degradable nanogels for controlled delivery of multiple therapeutics**
G Misra, W Weiss, T Lowe
Penn State College of Medicine, USA
- 885 Development of a Recombinant Non-viral Vector for Targeted Breast Cancer Gene Therapy**
S Mangipudi, A Hatefi
Washington State University, USA
- 886 Effect of lipid structure on physical and biological evaluation of gamma-oryzanol loaded solid lipid nanoparticle for drug delivery**
U Sakulkhu
National Nanotechnology Center, Thailand
- 887 Elucidating the Intracellular Trafficking Pathway of Arginine-Leucine Block Copolypeptide Vesicles**
V Sun, Z Li, X Gong, T Deming, D Kamei
UCLA, USA
- 888 Engineering Electrospun Silk Scaffolds with Dual Drug Gradients**
A Wandrey, V Vogel, H Merkle, L Meinel
ETH Zurich, Switzerland
- 889 Environmental sensitivities of the polyion complex vesicles (PICsomes)**
A Kishimura, S Liamsuwan, H Oana, Y Yamasaki, K Kataoka
The University of Tokyo, Japan
- 892 *In vitro* cytotoxicity of silica nanotubes**
T Yu
University of Utah, USA
- 893 *In Vivo* Degradation of a Tyrosine-Based Resorbable Polymer**
Q Ge, S Pulapura, A Moses
TyRx Pharma, Inc., USA
- 894 Introducing a novel thiolated chitosan**
G Millotti
University of Innsbruck, Austria
- 895 Modification and Characterization of Core-Shell Chitosan Nanoparticles for DNA Delivery Carrier**
S Surassmo
National Science and Technology Development Agency, Thailand
- 896 Monodisperse Hydrogel Microparticles based on Crosslinked Hyperbranched Polyglycerol Prepared by Micromolding and Photolithographic Methods**
M Oudshoorn, R Penterman, R Rissmann, J Bouwstra, D Broer, W Hennink
Utrecht University, The Netherlands
- 897 Physical and Biological Characterization of Nanostructured Lipid Carriers (NLC) Loaded with Two Types of Antioxidant Agents: Alpha Lipoic Acid and Marigold Extract**
P Beirapha
National Science and Technology Development Agency, Thailand
- 898 Preparation and Evaluation of Paclitaxel/OK432-Eluting Silicone/Polyurethane Membrane for Bile Duct Stent**
S Hong, M Kim, S Jeong, J Maeng, D Lee
Inha University, South Korea
- 899 PVC Surface-Immobilized Hydrogels for Use as Drug Capture-Release Layers**
J Cowley, C McCoy, S Gorman, D Jones, F McFadden
Queen's University Belfast, UK

Novel Biomaterials (continued from previous page)

- 901 Thermo-sensitive radiopaque copolymers for embolization**
B [Lee](#), C Leon, M Preul, B Vernon
Arizona State University, USA
- 902 Thermosensitive and chemically crosslinkable poly(organo-phosphazene) gels**
P [Thrimoorthy](#), S Song
Korean Institute of Science and Technology, South Korea
- 903 Zein Based Films as Controlled Release Systems**
N Singh, D [Georget](#), P Belton, S Barker
University of East Anglia, UK

Oral Drug Delivery II

- 904 Controlled Release Formulation of 10-Hydroxy-Camptothecin Using Hydrophilic Matrix System**
L [Osei-Owusu](#), M Savva
Long Island University, USA
- 905 Design and evaluation of gastroretentive sustained release Satranidazole tablets**
K [Kotipalli](#)
SNDT University, India
- 906 Development and Scale-up Considerations for Novel Solvent Free Injection Molding Delivery Systems**
S [Li](#)
McNeil Consumer Healthcare, USA
- 907 Development of Fast Dissolving Tablets Using Eudragit NE as a Binder**
Y [Takaishi](#), K Park
Purdue University, USA
- 908 Enhancing Dissolution of Poorly Water Soluble Drugs: Co-milling of Indomethacin and Ranitidine HCl Binary Mixtures**
N Chieng, J Aaltonen, D Saville, T [Rades](#)
University of Otago, New Zealand
- 909 In Vitro/In Vivo Correlation (IVIVC) Development for a Model Compound with Release Rate Specific Bioavailability**
J [Chittenden](#)
Pharsight, USA
- 912 Increased Intestinal Permeability Induced by the Antimicrobial Peptide Melittin: Ex vivo and In Situ Studies**
S [Maher](#), X Wang, V Bzik, S McClean, D Brayden
University College Dublin, Ireland
- 915 The Effect of Different Levels of a Digestible Surfactant, Resulting in Drug Solutions or Suspensions, on the Bioavailability of Danazol and Evaluation of Use the Dynamic Lipolysis to Obtain In Vivo-In Vitro Relations**
A Larsen, R Holm, M Pedersen, A [Müllertz](#)
University of Copenhagen, Denmark

PEG-Based Systems

- 916 Effect of macrophage PEGylation on endocytosis modes**
J [Ducreux](#), P Crocker, R Vanbever
Université Catholique de Louvain, Belgium
- 917 Electrical impedance analysis of tea tree oil formulations: Stability in the frozen state**
C [Martin](#), C Rossq, T Peacock, K Ward
Biopharma Technology Ltd., U.K.
- 918 Enhanced intestinal delivery and stability both in vivo and in vitro of site specific PEGylation of salmon calcitonin to different molecular sizes of POLYPEG®**
S [Ryan](#), D Brayden
University College Dublin, Ireland
- 919 Hydrophilic Surface Characteristics of PEO-Modified Silicone Gels**
S [Sivas](#), N Hoy, K Reichel
NuSil Silicone Technology, USA
- 920 Long Circulating Biodegradable Polymeric Micelles: Towards Targeted Drug Delivery**
C [Rijcken](#), R Schiffelers, R Van Nostrum, W Hennink
University Utrecht, The Netherlands
- 921 New polyethylene glycol mono-conjugates of granulocyte-colony stimulating factor**
M [Sergi](#), C Maullu, B Salis, F Caboi, R Schrepfer, G Tonon
Bio-Ker S.r.l., Italy
- 922 PEG-coated nanoemulsions, a carrier of pharmaceutical interest for the delivery of antitumoural drugs**
P [Hervella](#), M Alonso-Sande, M Garcia-Fuentes, F Ledo, M Lucero, M Alonso
University of Santiago de Compostela, Spain
- 923 Polymeric Micelles for Amphotericin-B Delivery: A Comparative Study**
S [Salmaso](#), A Brossa, S Bersani, P Caliceti
University of Padua, Italy
- 925 Surface Plasma Resonance Analysis for Binding Affinity Assessment of Anti-VEGF 2'-OMe-RNA Aptamer Before and After PEGylation**
K Kim, H Kang, E Oh, J Park, S [Hahn](#)
POSTECH, Korea
- 926 Teaching an old dog new tricks: Loading PEGylated enzymes into filamentous and spherical polymer nanocarriers**
E Simone, V Vardon, T Dziubla, V Shuvaev, V Muzykantov
University of Pennsylvania, USA
- 927 Transferrin Appended Long Circulating Nanoparticles for Brain Targeting**
A Jain, S Jain
Dr. H. S. Gour University, India

Poster Session III • Rhinelander Gallery

Wednesday, July 16

Set Up 07:00-08:15 Authors Present 13:30-14:30
Open 10:30-17:00 Take Down 17:00-17:15

Pulmonary

- 928 Active Nanoparticles for Controlled Drug Delivery in Lung Diseases**
S McGill, M Osinski, H Smyth
University of New Mexico, USA
- 929 Budesonide Nanoporous Microparticles (NPMPs) – *In vitro* Aerosolisation Properties and Atomic Force Microscopy (AFM)**
L Tajber, B Crean, C Roberts, L Nolan, O Corrigan, A Healy
Trinity College Dublin, Ireland
- 930 Controlled Nanoparticle Agglomeration: A Unique Strategy in Dry Powder Engineering**
N El Gendy, M Bailey, C Plumley, L Shi, C Berkland
The University of Kansas, USA
- 931 Depot Formulation of Vasoactive Intestinal Peptide by Protamine-Oligonucleotide Nanoparticles**
K Wernig, M Griesbacher, F Andrae, W Mosgoeller, J Wagner, A Zimmer
University of Graz, Austria
- 933 Development of Highly Porous PLGA Microparticles for Sustained Local Drug Delivery to the Lung**
Y Yeo, Y Yang, N Bajaj, P Xu
Purdue University, USA
- 934 Development of User-Friendly Inhalation Devices**
K Kawakami, C Sumitani, Y Uchida, Y Yoshihashi, E Yonemochi, K Terada
National Institute for Materials Science, Japan
- 935 Effects of Selected Pharmaceutical Agents on *Pseudomonas aeruginosa* Biofilms**
V Chuang, J Wen, R Alany, S Swift, A Chan, D Choi, S Hy, I Wong, H Kumar, C Bunt
AgResearch Lincoln Research Centre, New Zealand
- 936 Interaction of heparin-loaded polysaccharidic nanostructures with a human pulmonary epithelial cell line**
S Vicente, M De La Fuente, J Brea, D Torres, M Alonso, B Seijo
University of Santiago de Compostela, Spain
- 937 Investigating the Impact of Humidity on Drug - Propellant Interactions for Metered Dose Inhaler Systems**
D Burnett, M Naderi, F Thielmann, P Jannick
Surface Measurement Systems, USA
- 938 Is Particle Size a Decisive Parameter for Nanoparticle Clearance from the Airways?**
A Henning
Saarland University, Germany
- 939 PGE1 Microparticles for the Treatment of Pulmonary Arterial Hypertension**
V Gupta, A Rawat, F Ahsan
Texas Tech University Health Sciences Center, USA
- 940 PLGA microspheres are favorable for pulmonary drug delivery toward alveolar macrophage cells**
K Hirota, T Kawamoto, T Nakajima, K Makino, H Terada
Tokyo University of Science, Japan
- 941 Preparation, Characterization, and Aerosolisation Studies of Optimized Poly (D, L-Lactide) Microspheres for Pulmonary Delivery**
X Song, P Seville, Y Perrie
Aston University, UK
- 942 Primary porcine alveolar epithelial cells (pAepC) as a model for drug permeability assays**
H Eixarch, E Haltner-Ukomadu
Across Barriers GmbH, Germany
- 943 Respirable PLGA-Microspheres for Pulmonary Delivery of Hepatitis B Vaccine**
C Thomas, A Rawat, F Ahsan
Texas Tech University Health Sciences Centre, USA
- 944 The Role of a Lipophilic Adjuvant to Produce High Respirable Tobramycin Powders for Inhalation**
C Parlati, R Bettini, F Sonvico, P Colombo, F Buttini
University of Parma, Italy

Release Triggers for Use in Controlled Release

- 947 Design of an Efficient pH Sensitive Delivery System for Anti cancer Drugs Based on Inorganic Nanocrystals of Carbonate Apatite**
M Hossain, E Chowdhury, T Akaike
Tokyo Institute of Technology, Japan
- 951 Formulation development intended for increasing compliance and improving the hardness and the friability of tablets containing valacyclovir**
H Shin, H Chang
Daewoong, South Korea
- 952 Formulation Development of *Derris* Emulsifiable Concentrate for Crop Pest Control**
A Sae Yoon
Prince of Songkla University, Thailand
- 953 Polymeric pH-Responsive Nanospheres for Delivery of Anticancer Drugs**
A Griset, M Grinstaff
Boston University, USA