GSK-CRS Long-Acting Injectables and Implantables Conference

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Dr. Robert Langer is the David H. Koch Institute Professor at the Massachusetts Institute of Technology; there are 13 institute professors at MIT – being an Institute Professor is the highest honor that can be awarded to a faculty member. He has written more than 1,350 articles and has over 1,130 issued and pending patents worldwide. Bob’s many awards include: the U.S. National Medal of Science, the U.S. National Medal of Technology and Innovation, the Charles Stark Draper Prize, the Albany Medical Center Prize, the Wolf Prize for Chemistry, the 2014 Kyoto Prize, and the Lemelson-MIT prize for being “one of history’s most prolific inventors in medicine.” He is one of very few individuals ever elected to the National Academy of Medicine, the National Academy of Engineering, and the National Academy of Sciences.

SPEAKERS

Robert Langer, Ph.D.

Dr. Robert Langer is the David H. Koch Institute Professor at the Massachusetts Institute of Technology; there are 13 institute professors at MIT – being an Institute Professor is the highest honor that can be awarded to a faculty member. He has written more than 1,350 articles and has over 1,130 issued and pending patents worldwide. Bob’s many awards include: the U.S. National Medal of Science, the U.S. National Medal of Technology and Innovation, the Charles Stark Draper Prize, the Albany Medical Center Prize, the Wolf Prize for Chemistry, the 2014 Kyoto Prize, and the Lemelson-MIT prize for being “one of history’s most prolific inventors in medicine.” He is one of very few individuals ever elected to the National Academy of Medicine, the National Academy of Engineering, and the National Academy of Sciences.

Marc Baum, Ph.D.

Marc M. Baum is President, Senior Faculty, and Founder of the nonprofit organization, Oak Crest Institute of Science. This institute is an innovative chemistry and biology research and education center in Monrovia, CA. Marc earned a Ph.D. in Organic Chemistry from Imperial College, London, UK. His principal biomedical research interests include: development of innovative and practical drug delivery systems to combat infectious diseases, pharmacology of antiretroviral agents for HIV prophylaxis, and microbial dynamics in specialized niches.

Cheryl Blanchard, Ph.D.

Dr. Cheryl R. Blanchard is President and CEO of Microchips Biotech, Inc. – a developer of implantable drug delivery devices designed to provide daily drug dosing for long term therapy. Prior to that, she was the Senior Vice President and Chief Scientific Officer at Zimmer, Inc. in Warsaw, IN. In that role she was responsible for Research and Development, New Technology, Global Quality, Regulatory and Clinical Affairs, and Health Economics. She was also a member of Zimmer’s executive committee, and built and served as general manager of the Zimmer Biologics business. Previous to Zimmer, Blanchard built and led the medical device practice at Southwest Research Institute, while also serving as an adjunct professor at the University of Texas Health Science Center, in San Antonio, TX. She holds a B.S. in Ceramic Engineering from Alfred University and an M.S. and Ph.D. in Materials Science and Engineering from the University of Texas – Austin. Outside of her role at Microchips Biotech, Cheryl is a member of the National Academy of Engineering.

Howard Gendelman, M.D.

Dr. Howard E. Gendelman is the Margaret R. Larson Professor of Internal Medicine and Infectious Diseases, and Chairman of the Department of Pharmacology and Experimental Neuroscience at the University of Nebraska Medical Center. Dr. Gendelman is credited in unraveling how functional alterations in brain immunity induce metabolic changes and ultimately lead to neural cell damage for a broad range of infectious, metabolic, and neurodegenerative disorders. These discoveries have had broad implications in developmental therapeutics aimed at preventing, slowing, or reversing neural maladies. He is also credited for the demonstration that AIDS dementia is a reversible metabolic encephalopathy; a finding realized at the University of Nebraska Medical Center.

Gregory Kopf, Ph.D.

Greg is currently the Director of Research and Development, Contraceptive Technology Innovation at FHI360 in Durham, NC. His basic scientific research interests include the biology of gametogenesis, fertilization, and early pre-implantation development – his translational and clinical interests have focused on both infertility and contraception. He started his career in the Department of ObGyn at UPenn, where he became the Celso Ramon Garcia Professor of Reproductive Biology in ObGyn. After leaving UPenn, he served as Assistant Vice President, Women’s Health & Bone at Wyeth Pharmaceuticals, where he directed discovery efforts in contraceptive development. He later became Vice President, Discovery where he also directed the discovery efforts in menopause, reproductive disorders, osteoarthritis, osteoporosis, and urinary incontinence.

Lasse Leino, Ph.D.

Dr. Lasse Leino started his career in the pharma industry with Astra Zeneca 20 years ago in Sweden. Lasse then moved to Finland, where he had several managerial R&D positions in biotech and pharma companies. In 2005, he became a bio-entrepreneur and CEO of two drug development companies that were later merged and listed in the Helsinki Stock Exchange. Since 2013, he has been the CEO of a Finland-based drug delivery technology company called DelSiTech Ltd. Lasse has a Ph.D. in Biochemistry, and currently holds also a position as Adjunct Professor in Immunology at the University of Turku, Finland.

John Lepore, M.D.

As Senior Vice President for R&D Pipeline at GSK, John’s group is responsible for R&D activities across neuroscience, rare diseases, respiratory, metabolic and cardiovascular disease, and novel models of drug discovery based on partnerships with academia. John received his M.D. from Harvard Medical School, and trained in internal medicine and cardiology at Massachusetts General Hospital. Following post-doctoral training at the Harvard School of Public Health, John joined the faculty of the Cardiovascular Medicine Division at UPenn. Since 2006, he’s had many roles at GSK including: Head of Clinical Pharmacology and Translational Medicine for Cardiovascular R&D, Head of the Heart Failure Discovery Performance Unit, and Head of the Metabolic Pathways and Cardiovascular Therapeutic Area Unit. He’s a member of GSK R&D governance boards, and he co-chairs the Technology Investment Board.
David Mooney, Ph.D.

David Mooney is the Pinkas Family Professor of Bioengineering and a Core Faculty Member of the Wyss Institute at Harvard. His laboratory designs biomaterials to make cell and protein therapies effective, and practical approaches to treat disease. He is a member of the National Academy of Engineering, the National Academy of Medicine, and the National Academy of Inventors. He has won numerous awards, including the Clemson Award from the SFB, the MERIT award from the NIH, and the Everett Mendelsohn Excellence in Mentoring Award from Harvard College. His inventions have been licensed, leading to commercialized products, and he is active on industrial scientific advisory boards.

Randy Mrsny, Ph.D.

Dr. Mrsny obtained a B.S. in Biochemistry and Biophysics at the University of California – Davis, a Ph.D. in Anatomy and Cell Biology at the U.C. Davis School of Medicine, and spent four years as an NIH Postdoctoral Fellow in Membrane Biophysics in the Institute of Molecular Biology at the University of Oregon. Randy currently holds a Professor’s chair of Epithelial Cell Biology at the University of Bath in the Department of Pharmacy and Pharmacology, where he studies biological principles associated with normal epithelia cell function and how these are affected in disease states.

Andrew Owen, Ph.D.

Andrew Owen is Professor of Pharmacology at the University of Liverpool. He is Chair of the British Society for Nanomedicine, a fellow of the Royal Society of Biology, and a fellow of the British Pharmacological Society. His clinical and basic research focuses on understanding mechanisms that underpin inter-patient variability in pharmacokinetics and pharmacodynamics, and to employ such knowledge to accelerate nanomedicine translation. Andrew’s work is supported by the US Agency for International Development, US National Institutes for Health, UK Medical Research Council, European Commission, and UK Engineering and Physical Sciences Research Council. He has published over 160 manuscripts, is co-inventor of patents relating to nanomedicines and a co-founder of Tandem Nano Ltd.

Robert Prud’homme, Ph.D.

Dr. Robert Prud’homme is a professor in the Department of Chemical and Biological Engineering at Princeton University. He is the founding director of the Program in Engineering Biology. His research program focuses on polymer self-assembly applied to drug delivery. The development of Flash NanoPrecipitation (FNP) in his laboratory enabled the encapsulation of poorly soluble drug compounds and oligonucleotides for therapy directed toward cancer, TB, and infections. FNP is a scalable and continuous process that enables integrated processing and spray drying for low-cost oral and aerosol formulations. Under sponsorship by the Bill and Melinda Gates Foundation, FNP is being adopted to formulate new compounds coming from TBA, MMV, and DNDi.

Julius Remenar, Ph.D.

Dr. Jules Remenar earned a Ph.D. in Physical Organic Chemistry from Cornell University, and then did his postdoc in Materials Science at IBM/Stanford before joining the Pharmaceutical Chemistry Group at Merck in 1998. Jules moved to TransForm Pharmaceuticals/Johnson & Johnson to focus on crystal forms and formulations to improve oral bioavailability. After joining the Formulations Group at Alkermes in 2008, he realized that a prodrug of Aripiprazole would make a better LAI than a novel formulation, and invented Aripiprazole Lauroxil – now marketed as Aristada®. Jules continues to study crystalline prodrugs as long-acting injectables within the medicinal chemistry group at Alkermes.

Christopher A. Rhodes, Ph.D.

Dr. Rhodes is a pharmaceutical technologist with experience in product development of complex formulations and delivery systems, including sustained release injectable, pulmonary, nasal, transdermal, and oral formulations for biopharmaceutical products and small molecules. He played a key role in the development of commercial products Byetta, Lusedra, Bydureon, Myalept, and Afrezza and was product development leader at Amydis Diagnostics, SKS Ocular, Amylin, Guilford, and Mannkind. Dr. Rhodes is currently CEO of Drug Delivery Experts, which he founded in 2014 to develop biologics delivery systems. He has a Ph.D. in Chemistry from UCLA, a B.S. in Chemistry from NYU, and was a Postdoc at Yale University.

Daniel V. Santi, M.D., Ph.D.

Dr. Santi, co-founder and President of Prolynx, received an M.D. and a Ph.D. in Medicinal Chemistry. He served on the University of California – San Francisco faculty as Professor of Biochemistry and Biophysics, and Pharmaceutical Chemistry until 2000 when he became CEO of Kosan Biosciences. He returned to UCSF in 2007, where he served as interim Director of the CTSI and then of Translational Research at QB3. He became an Associate Dean for External Relationships in 2009 and managed a successful Industry Outreach Program since that time. Dr. Santi has published over 300 scientific papers and is co-inventor of over 50 patents.

Alex Schwarz, Ph.D.

Alex has over 20 years of product development experience in medical devices and pharmaceuticals within small start-up companies and major international pharma companies. He brought several products from inception to regulatory approvals in Europe and the US. He is a named inventor on more than 30 issued US patents and numerous international patents. At Braeburn Pharmaceuticals, he leads all early stage development projects. Prior to joining Braeburn, Alex held positions at Endo Pharmaceuticals, Novartis, and MedImmune, performing research into long-acting formulations of small molecules and biologics. Alex has a PhD from the University of Bonn in Germany.
Steven Schwendeman, Ph.D.

Dr. Steven Schwendeman is the Ara G. Paul Professor and Chair of Pharmaceutical Sciences, and Professor of Biomedical Engineering at the University of Michigan Biointerfaces Institute. He is Associate Editor of the Journal of Controlled Release since 2007. He has co-authored more than 95 publications, trained more than 20 Ph.D. and 12 postdoctoral students, delivered more than 100 invited lectures, consulted for more than 25 companies, published more than 110 abstracts and has four issued and several pending patents. Steve’s principal contribution to science involves the theory and application of encapsulation, stabilization, and controlled release of vaccine antigens and drugs of all sizes with poly(lactic-co-glycolic acid).

Marco Siccardi, Ph.D.

Dr. Siccardi was appointed as Lecturer in Nanomedicine across the faculties of Health & Life Sciences and Science & Engineering at the University of Liverpool in 2012, and promoted to Senior Lecturer in Pharmacology in 2016. He has authored more than 80 peer-reviewed publications, review manuscripts, and book chapters. His research interests focus on the optimization of novel nanomedicine and traditional formulations for drug delivery based on experimental pharmacological data from in silico, in vitro, and in vivo models, aiming to improve pharmacokinetics, efficacy, and side effects. Additionally, Marco is interested in the clarification of the ADME processes involved in drug disposition and the identification of nanoformulation characteristics influencing drug exposure.

William Spreen, Pharm.D.

Bill Spreen, Pharm.D, is VP, Clinical Development at ViV Healthcare and based in Research Triangle Park, North Carolina. He is currently Medicine Development Leader – Cabotegravir, an HIV integrase inhibitor in global phase 3 development as a long-acting injectable agent for both HIV prevention and treatment. In his career with ViV Healthcare and legacy companies, Bill has led global development programs for a number of small molecule antiretroviral agents, culminating in approval of dolutegravir, abacavir and the combination products Trizivir and Epzicom/ Kivexa. Bill and colleagues also led GSK’s efforts to validate the clinical utility of a genetic-based screening test for abacavir hypersensitivity reaction. Bill joined GSK after receiving his Pharm.D. from The Ohio State University, Columbus, Ohio, and transitioned to ViV Healthcare R&D in 2015.

Thomas R. Tice, Ph.D.

Dr. Tice is Senior Director, Technical Global Marketing, Evonik Corporation. He provides scientific support to Evonik’s product development, sales, and intellectual property teams. Tom is internationally recognized for research in drug delivery, and he has lectured on the topic throughout the world. His specialties include complex parenteral dosage forms and bioabsorbable polymers. In particular, Tom is known for his accomplishments involving injectable, extended-release microparticles made with bioabsorbable lactide/glycolide polymers that are designed to release pharmaceuticals. He led the team, and is one of the inventors, that developed the first commercial, injectable, extended-release microparticle product. This product was a one-month LHRH formulation indicated for the treatment of prostate cancer – Decapeptyl® SR. Tom earned his Ph.D. in Biophysics from Syracuse University. He holds 43 U.S. patents and has more than 180 publications, presentations, and invited lectures to his credit. He currently serves on the Board of McWhorter School of Pharmacy at Samford University, and serves on the United States Pharmacopeia General Chapters-Dosage Forms Expert Committee as Vice Chairman, and United States Pharmacopeia, Nomenclature, Safety and Labeling Expert Committees.

Omid Veiseh, Ph.D.

Dr. Veiseh is Assistant Professor and CPRIT Scholar in Cancer Research in the Department of Bioengineering at Rice University. He received a dual Ph.D. in Materials Science & Engineering and Nanotechnology from the University of Washington. He completed his postdoctoral research with Dr. Robert Langer and Dr. Daniel Anderson at Massachusetts Institute of Technology and Harvard Medical School. Over the course of his career, he has authored or co-authored more than 50 peer-reviewed publications, including those in Nature, Nature Biotechnology, Nature Materials, and Nature Medicine. Omid is an inventor on 20 pending or awarded patents, many of which have been licensed for commercialization by three separate biotechnology companies.

Yan Wang, Ph.D.

Dr. Yan Wang received her Ph.D. in Pharmaceutical Sciences from the University of Connecticut. Currently, Yan is a science reviewer in the Office of Research and Standards, Office of Generic Drugs. She is involved in developing scientific standards relating to generic drug development and review, for a variety of complex formulations including long-acting injectable implantable products and locally-acting drug products. In addition, Yan is also heavily involved in GDUFA funded research projects. One of the major focuses is on the development of proper scientific tools, such as in vitro methods, to facilitate setting proper standards for evaluation of complex generic drug products.
AGENDA

TUESDAY, APRIL 18

8:15 – 8:30 a.m. Opening Remarks
8:30 – 8:45 a.m. Welcome Address – John Lepore, M.D., Senior Vice President, R&D Pipeline, GSK
8:45 – 9:00 a.m. Break

Session 1
Development of Long-Acting Injectable and Implantable Products: FDA and Industry Perspectives
Session Chairs: Kamlesh Patel, Ph.D., GSK and Christopher A. Rhodes, Ph.D., Drug Delivery Experts
9:00 – 9:30 a.m. Thomas Tice, Ph.D. Historical Aspects, Technical Understandings and Future Trends of Long Acting Injectables
9:30 – 10:00 a.m. Yan Wang, Ph.D. FDA Perspective
10:00 – 10:30 a.m. Julius Remener, Ph.D. Modifying Molecules to Act as Long-Acting Injectables
10:30 – 11:00 a.m. Break

Session 2
Novel Controlled-Release Approaches for Peptide and Protein Delivery
Session Chairs: Doug Nesta, Ph.D., GSK and Thomas Tice, Ph.D., Evonik Corporation
11:00 – 11:30 a.m. Christopher A. Rhodes, Ph.D. Elaborating the Life Cycle of GLP-1 Agonists in Type 2 Diabetes: The Search for The Optimum Product Profile for Patient Take Home Therapies
11:30 a.m. – 12:00 p.m. Daniel Santi, M.D., Ph.D. Chemically Controlled Half Life Extension of Peptidic Therapeutics
12:00 – 12:30 p.m. Lasse Leino, Ph.D. Biodegradable Silica Matrix Based Parenteral Drug Delivery
12:30 – 1:30 p.m. Lunch, Networking, and Poster Viewing

Session 3
Understanding and Taking Advantage of Biological Dynamics to Design Long-Acting Products
Session Chairs: Manish Gupta, Ph.D., GSK and Andrew Owen, Ph.D., University of Liverpool
1:30 – 2:00 p.m. Randy Mrsny, Ph.D. Simulating Events at the Subcutaneous Injection Site
2:00 – 2:30 p.m. Marco Siccardi, Ph.D. Computational Modeling for the Rational Optimization of Long-Acting Strategies
2:30 – 3:00 p.m. Howard Gendelman, M.D. LASER ART: Long-Acting Slow Effective Release Antiretroviral Therapy
3:00 – 3:30 p.m. Break

Session 4
Long-Acting Injectables and Implantables for the Developing World
Session Chairs: Sherene Min, MD, MPH, ViV Healthcare and Marc Baum, Ph.D., Oak Crest Institute
3:30 – 4:00 p.m. Andrew Owen, Ph.D. Rationalizing the Need for Long-Acting Drug Delivery Across Diseases: Balancing Need with What is Achievable
4:00 – 4:30 p.m. Greg Kopf, Ph.D. Long Acting Contraception for the Developing World
4:30 – 5:00 p.m. Bill Spreen, Pharm.D. Cabotegravir LA: Translation into the Clinic
5:00 – 6:00 p.m. Poster Viewing and Refreshments
6:30 – 9:30 p.m. Reception (Barnes Foundation, 2025 Benjamin Franklin Parkway, Annenberg Court, Philadelphia, PA 19103)

WEDNESDAY, APRIL 19

Session 5
New Developments in Implant Devices for Reversible Long-Acting Therapy
Session Chairs: William Spreen, Pharm.D., ViV Healthcare and Greg Kopf, Ph.D., FHI360
8:30 – 9:00 a.m. Alex Schwarz, Ph.D. Adherence and Compliance Challenges with Long-Acting Implants
9:00 – 9:30 a.m. Marc Baum, Ph.D. An Innovative Approach to Long-Acting Implantable Antiretroviral Drug Delivery
9:30 – 10:00 a.m. Cheryl Blanchard, Ph.D. The Promise of Adherence with Implantable Drug Delivery
10:00 – 10:30 a.m. Break

Session 6
Emerging Controlled-Release Parenteral Strategies
Session Chairs: Matthew Burke, Ph.D., GSK and Randy Mrsny, Ph.D., University of Bath
10:30 – 11:00 a.m. Robert Prud’homme, Ph.D. Novel Formulations for Sustained Delivery of Peptides and Small Molecule Therapeutics from Circulating Nanoparticles and Depot Microparticles
11:00 – 11:30 a.m. Omid Veiseh, Ph.D. Immune Modulatory Biomaterials for Cell-Based Therapies
11:30 a.m. – 12:00 p.m. Steven Schwendeman, Ph.D. Novel Approaches for Poly(Lactic-Co-Glycolic Acid) Long-Acting Release Depots
12:00 – 12:30 p.m. David Mooney, Ph.D. Hydrogel-Based Drug Delivery
12:30 – 2:00 p.m. Lunch, Networking, and Poster Viewing
2:00 – 3:00 p.m. Keynote Address: Robert Langer, Ph.D. New Ways to Deliver Drugs and Cells
3:00 – 3:30 p.m. Conference Closing Remarks
Clinical Translation of Long-Acting Injectable/Implantable Platforms

Transcutaneously refillable nanochannel implant for HIV PrEP
Alessandro Grattoni, Houston Methodist Research Institute

Synthesis and characterization of a long-acting nanoformulated dolutegravir
Brady Sillman, University of Nebraska Medical Center

Perivascular administration of atorvastatin loaded in PLGA microparticles/hyaluronic acid gel: Challenges for the translation between animal models
Ioanna Mylonaki, School of Pharmaceutical Sciences, University of Geneva, University of Lausanne

Sustained oxygen release by catalase immobilized hydrogel and H2O2 microcapsules for improved tissue regeneration
Jeong Lim, Kyungpook National University Hospital

Pharmacokinetics of a long-acting dolutegravir prodrug nanoformulation
JoEllyn McMillan, University of Nebraska Medical Center

Q-Octreotide – New generation of treatment for acromegaly and carcinoid syndrome
Katherine Bamsey, Midatech Pharma (Wales Ltd)

Very large-scale integrated droplet generation (dVLSI): Monolithic incorporation of 10K microfluidic generators
Sagar Yadavali, University of Pennsylvania

A long-acting nanoformulated cabotegravir prodrug for improved antiretroviral therapy
Tian Zhou, University of Nebraska Medical Center

Emerging Controlled Release Parenteral Technologies

Implantable nanochannel system for the controlled delivery of therapeutics in microgravity to prevent muscle atrophy
Andrea Ballerini, Houston Methodist Research Institute; University of Milan

Multimodal image-guided theranostic study of antiretroviral drug biodistribution
Bhavesh Kevadiya, University of Nebraska Medical Center

Constant delivery of GC-1 from a nanochannel membrane device for metabolic syndrome
Carly Filgueira, Houston Methodist Research Institute

Biodegradable In Situ Forming Implants for HIV treatment and prevention
Clement Haec, Queen’s University Belfast

Sustained immunotherapeutic delivery from an intratumoral nanofluidic seed for cancer treatment
Corrine Ying Xuan Chua, Houston Methodist Research Institute

Microarray patch delivery of a long-acting antiretroviral for HIV PrEP or treatment
Courtney Jarrahian, PATH

Medusa™ – A safe and effective sustained release delivery platform for injectable pharmaceuticals (proteins, peptides and small molecules)
David Monteith, AVADEL Pharmaceutical

Macrophage exosomes as novel antiretroviral drug delivery platforms
Denise Cobb, University of Nebraska Medical Center

A blend in PCL-PEO nanofibers containing ACV as an anti-infection vaginal patch
Elzah Ani, Islamic Azad University–Science and Research Branch

Development risperidone LAR release formulation without initial delay
Frank Liu, AC Pharmaceutical Co. Ltd.

Leveraging nanochannels for a remotely controllable drug delivery implant
Giacomo Bruno, Houston Methodist Research Institute

PRINT: Engineering precision into controlled-release therapeutics
Jake Sprague, Liquidia Technologies Inc.

A novel approach to keloid and hypertrophic scar therapy: Sustained release of proteases from PLGA microspheres
Jillian Hillman, Hyalo Technologies

Vancomycin-loaded, pH-responsive chitosan nanoparticles as a nanoabiotic against methicillin-resistant Staphylococcus aureus
Jwala Renukunta, University of Texas at El Paso

Ocular tolerability of sustained-release cyclosporine A PLGA microspheres for the treatment of posterior uveitis
Rhian Davies, Midatech Pharma (Wales Ltd)

Boosting long-acting nanoformulated antiretroviral drugs
Zhiyi Lin, University of Nebraska Medical Center

Molecular Design Strategies to Achieve Longer Acting Therapies

Injectable albumin conjugated polymers: A novel drug delivery platform with long blood residence time and retained pharmacological activity
Anna Andersen, Department of Infectious Diseases, Aarhus University Hospital

Applied polymer and medicinal chemistry to create long-acting slow effective release antiretroviral therapy
Benson Edagwa, University of Nebraska Medical Center

Autophagy facilitated controlled release of long-acting antiretroviral drug depots
Divya Prakash Gnanadhas, University of Nebraska Medical Center

Biodegradable Nano IPN’s L-lactide copolymers for oral insulin delivery
Hadi Al-Lami, University of Basrah

Fibrin glue embedded with biodegradable microparticles for sustained delivery of bupivacaine
Hyun Koo Kim, Department of Thoracic and Cardiovascular Surgery, Korea University Guro Hospital

A first long-acting emtricitabine nanoparticle
Ibrahim Ibrahim, University of Nebraska Medical Center

A second-generation long-acting lamivudine nanoformulation
Mary Banoub, University of Nebraska Medical Center
An HIV-1 Eradication Strategy Employing Nanoformulated Antiretroviral Drugs and Excision Therapy for Infected Humanized Mice

Prasanta Dash, University of Nebraska Medical Center

Triox Nano’s Patented Synergism of DNA Machines and Porous Nanoparticles Creates a Vast Field of Intelligent Nanoparticles

Roy Farfara, Triox Nano Israel

Preparation and Evaluation of Protective Chitosan Film Containing Natamycin to Improve the Stability of Cheese

Saeed Shojaee, Oloom Pezeshki University

Developing a Co-Drug/Nanoparticle Combination Approach for Targeting Neuroblastoma

David Guerrero, Children’s Hospital of Philadelphia

New Developments in Implant Devices for Reversible Long-Acting Therapy

Ethylene Vinyl Acetate (EVA) – A Proven and Versatile Excipient to Deliver Small and Large Drug Molecules in Implantable, Controlled Release Dosage Forms

Dirk Hair, Celanese

A Novel Prototype of Subcutaneous Implant for the Delivery of Insulin

Kaining Zhi, Temple University

Injectable Depot System for Sustained Release of Lidocaine to Address Post-operative Pain

Manisha Sharma, School of Pharmacy, University of Auckland

Tools and Models to Aid in Mechanistic Understanding of Long-Acting Injectable and Implantable Platforms

Utility of Multivariate Regression Model for the Prediction of Absorption Rate in Long-Acting Parenteral Suspension

Binfeng Xia, Merck & Co., Inc.

Lipid-Based Cobalt Ferrite Antiretroviral Drug Imaging Theranostic Nanoparticles

Brendan Ottemann, University of Nebraska Medical Center

Dolutegravir Loaded Cobalt Ferrite Europium Polycaprolactone Nanoparticles in the Assessment of Antiretroviral Tissue Biodistribution

Christopher Woldstad, University of Nebraska Medical Center

3D Global and Micro-structural Imaging and Predictive Drug Release Modeling of Long-Acting Parenterals

Daniel Skomski, Merck & Co., Inc.

Development of an In Vitro Platform for Engineering Neuromuscular Junction Using Nanogrooved Substrates

Eunkyoung Ko, University of Illinois at Urbana-Champaign

Imaging the Core of Degrading PLGA Microparticles: Toward a Better Understanding of Drug Release Profiles

Ioanna Mylonaki, School of Pharmaceutical Sciences, University of Geneva, University of Lausanne

Translating the Intramuscular Histopathology into a Biorelevant In Vitro Drug Release Model for Long-Acting Injectable (Pro-)Drug Nano-/Microcrystals

Nicolas Darville, Janssen Research & Development, a Division of Janssen Pharmaceutica NV

Program Advisors

Diane Burgess, Ph.D., Board of Trustees Distinguished Professor, Professor, Pharmaceutics, University of Connecticut

Matthew Burke, Ph.D., Head of Drug Delivery, Drug Product Design and Development, GSK

Howard Gendelman, M.D., Margaret R. Larson Professor of Internal Medicine and Infectious Disease, University of Nebraska Medical Center

Dennis Lee, Ph.D., Director, Drug Delivery, Drug Product Design and Development, GSK

Randy Mrsny, Ph.D., Professor, Dept. of Pharmacy and Pharmacology, University of Bath

Derek O’Hagan, Ph.D., Global Head of Discovery Support and New Technologies, GSK Vaccines

Andrew Owen, Ph.D., Professor, Department of Molecular and Clinical Pharmacology, University of Liverpool

Mark Prausnitz, Ph.D., Regents’ Professor, J. Erskine Love Chair of Chemical and Biomolecular Engineering; Director, Center for Drug Design, Development and Delivery, Georgia Institute of Technology

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Thomas Tice, Ph.D., Senior Director, Technical Global Marketing, Evonik Corporation

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Emile Velthuisen, Ph.D., Scientific Leader & GSK Fellow, GSK
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