UNITED Scientific Group
A non-profit organization

Pharma R&D
February 26-29, 2024 | Boston, MA | Hybrid

6th International Conference on

PHARMSCIENCE RESEARCH & DEVELOPMENT

February 26-28, 2024 | Boston, MA

February 29, 2024 | Virtual

Time Zone: Eastern Time

Venue
Boston Marriott Newton Hotel
2345 Commonwealth Avenue
Newton, MA 02466, USA

secretary@p-rnd.com

www.unitedscientificgroup.org www.pharma-rnd.com

EXHIBITOR

GENE TOOLS, LLC
www.gene-tools.com
Morpholinos

BRONZE SPONSORS

CONCEPT LIFE SCIENCES

SILCSBIO

GENE TOOLS, LLC

A Morpholino bound to a complementary target on RNA acts like sequence-specific masking tape, getting in the way of other large molecules accessing that target. Morpholinos are widely used by developmental biologists for gene function studies, but four Morpholino sequences are approved by the US FDA for treatment of Duchenne muscular dystrophy (eteplirsen, golodirsen, viltolarsen, and casimersen). Morpholinos can be targeted to block mRNA translation, modify pre-mRNA splicing, inhibit miRNA maturation and activity, block poly-A tailing sequences, block RNA translocation sequences, inhibit ribozyme activity and more. Morpholinos have been used as fluorescent probes to visualize RNA expression and as capture probes tethered to surfaces to pluck RNA from biological samples. Safe delivery of Morpholinos into the cytosol remains a challenge for the development of Morpholinos as pharmaceuticals. While Morpholinos will enter muscle satellite cells and fuse with regenerating myofibers, allowing some delivery into muscles for Duchenne muscular dystrophy, more widespread application of Morpholinos as therapeutics awaits safer and more effective delivery. Vivo-Morpholinos, with octaguanidinium delivery dendrimers, are available for research use but have insufficient therapeutic index for use in humans. A conjugate of a Morpholino with a cell-penetrating peptide is currently in clinical trials for Duchenne muscular dystrophy and may offer sufficient delivery for application in other diseases. Other modified Morpholinos with delivery-enabling technologies are in pre-IND stage. Successful solution of the cytosolic delivery barrier will allow systemic use of Morpholinos for a broad range of applications, including genetic and infectious disease. It is to bring attention to this problem, and the power of the Morpholino approach once the delivery problem is solved, that brings Gene Tools to sponsor this Pharma R&D meeting.

For more information: Website -- www.gene-tools.com
Animations linked from the front page show translation blocking and splice modification.
Morpholino publication database -- pubs.gene-tools.com
For questions: custsupport@gene-tools.com

Unlocking the Power of process development for a smoother transition to clinical trials

Are you looking for risk-mitigated API manufacturing? Look no further than Concept Life Sciences.

With a proven track record of propelling small molecules into clinical trials, we grasp the very challenges that innovators in the industry face. Our unwavering commitment lies in delivering holistic solutions to ensure your projects succeed and do so swiftly. Trust CLS to be your partner in accelerating your journey to clinical success.

Early PR&D Mitigation:

Clients often delay PR&D, but early engagement is key. It provides time to focus on new routes, starting materials, and parallel synthesis. When you reach candidate nomination, you can be confident that you have a material you can scale up, avoiding costly setbacks.

SELECT Criteria:

When it comes to route scouting and development, our top priority is to deliver safe, cost-effective, efficient, and reproducible chemistry solutions.

Overcoming Regulatory Challenges:

The GMP process can be costly, making it crucial to have reliable chemistry that provides precise control over critical quality attributes ensuring a right-first-time approach. Concept Life Sciences is your partner in achieving regulatory compliance and reliability, so you don't miss critical slots for clinical studies.

Solid Form Expertise:

Understanding and mastering the solid form of APIs is paramount. Failing to de-risk early in the process can result in significant challenges related to solubility and formulations, impacting both time and costs. Our team of experts leverages stae of the art instruments to generate high quality data, empowering informed decisions in the selection of the optimal solid form.

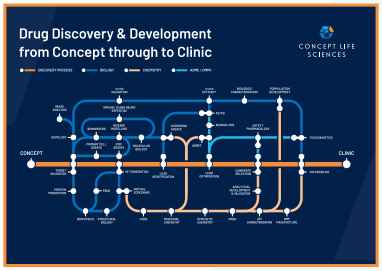
Analytical Method Development:

Our extensive experience and expertise in analytical method development, employing a wide array of techniques, combined with a deep understanding of regulatory requirements, set us apart, our collaborative team of chemists and analysts focuses on in-process method checkes, gaining comprehensive insights into impurities throughout the synthesis. This empowers us to maintain control when establishing specifications for the final API release.

Scalability:

Our Concept Life Sciences GMP manufacturing facilities have received accreditation from the MHRA providing us with the ability effortlessly scale up our developed processes from small grams to multi kilogram levels. This not only helps avoid unexpected cost implications but also ensures unwavering quality consistency.

Speed your drug through scale-up to manufacturing with access to our application specific scientific knowledge and GMP-certified facilities. We deliver integrated, world-leading process R&D and analytical services that will help you find safe, efficient, sustainable and scalable development routes to take your drug candidate from bench to clinic.



Contact us today to discover how we can tailor our services to your specific needs and transform your ideas into realities.

info@conceptlifesciences.com

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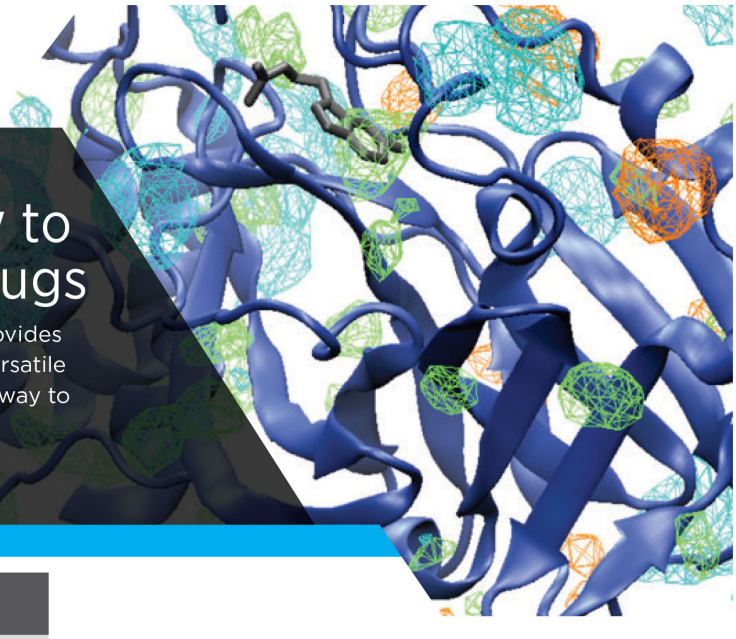


A **Powerful** New **Way** to Accurately **Design** Drugs

Our small molecule drug discovery platform provides structure-based drug design tools that create versatile datasets ensuring a more accurate and efficient way to bring drugs to market.

Suite

SILCS
Site-Identification by Ligand Competitive Saturation (SILCS) generates 3-D maps (FragMaps) of interaction patterns for chemical functional groups with your target molecule. SILCS accounts for intricacies of protein dynamics, providing tools to optimize ligand scaffolds using qualitative and quantitative binding pocket insights, allowing more rapid and effective drug design.

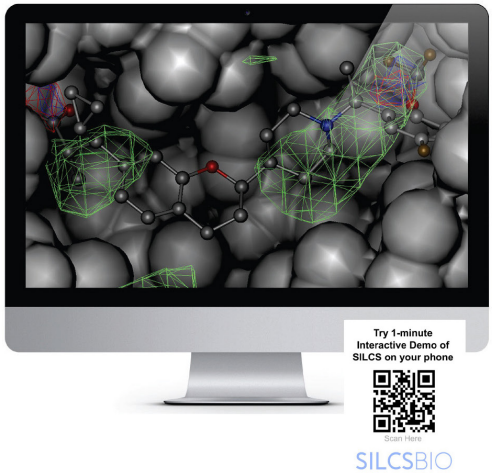
SILCS-Biologics
The SILCS-Biologics toolset utilizes the SILCS platform technology in a novel way to direct and inform in silico biologics formulations through mapping of protein-protein interactions and comprehensive excipient modeling. The technology is applicable to all classes of proteins including monoclonal antibodies (mABs).

CGenFF
Comprehensive Topology Generation and Parameter Assignment for Organic Molecules. The CHARMM General Force Field (CGenFF) program enables use of a wide range of diverse drug-like molecules in computer-aided drug design efforts.

SSFEP
SSFEP achieves accurate calculations 1000x faster than industry-equivalent FEP programs and quickly pushes your project through final lead optimization.

Robust physics based algorithms provide accurate and reliable evaluations of:

- Cryptic or transient pockets and other binding hotspots
- Pharmacophore models for virtual screening
- Protein flexibility
- Solvation effects and execution of lead optimization



1300 Bayard St ▪ Baltimore, Maryland 21230 ▪ p. (410) 754 - 4297 ext. 717
e. info@SilcsBio.com w. silcsbio.com

In-person Meeting Guidelines

COVID-19 safety policies:

The health and safety of all our participants remains our top priority. We are closely monitoring government mandates and policy changes, Centers for Disease Control and Prevention (CDC) guidelines and public health advancements (https://www.cdc.gov/).

Face-coverings - Wearing mask is recommended in the meeting premises / in-doors.

Hand sanitizer stations - Hand and washing facilities and/or sanitizing systems easily accessible to everyone throughout the event.

No contact policy - To assist in minimizing potential physical contact, elbow bumps are a great alternative to handshakes.

Presentations (PPT/PPTX/PDF)

To avoid physical contact, we request all the in-person presenters to submit the presentation at: https://pharma-rnd.com/submit_presentation

Q & A

Moderator/Chair will pick up questions from the audience in the meeting room (at venue) and also from the zoom chat function – and ask the speaker to answer live.

Meeting Joining Links (Live streaming on Zoom Platform)

As the conference is hybrid, the virtual attendees can access the in-person presentations and queries can be asked through zoom chat box.

Meeting links shared will be for the complete meeting to join at any point of time.

Topic: 6th International Conference on PharmScience Research & Development
Time: Feb 26-29, 2024 08:00 AM Eastern Time (US and Canada)

Join Zoom Meeting
https://us06web.zoom.us/j/85328791191?pwd=b6dM1gDDbDVgD45CQ5YRTwuSC6847w.1
Meeting ID: 853 2879 1191
Passcode: 391891

Topic: 6th International Conference on PharmScience Research & Development
Time: Feb 27, 2024 08:00 AM Eastern Time (US and Canada) - Parallel Session II

Join Zoom Meeting
https://us06web.zoom.us/j/83104519160?pwd=Zaj1aK9k9jJkoLzeoNxS6lJLc4sBkP.1
Meeting ID: 831 0451 9160
Passcode: 213412

DAY 01

FEBRUARY 26, 2024
IN-PERSON - @ Salon E

Join the meeting
https://us06web.zoom.us/j/85328791191?pwd=b6dM1gDDbDVgD45CQ5YRTwuSC6847w.1
Meeting ID: 853 2879 1191
Passcode: 391891

07:30-07:50 Registrations & Badge Pickup

07:50-08:00 Opening Ceremony

Keynote Presentations

Moderator: Josee Guindon, Texas Tech University Health Sciences Center, Lubbock, TX

08:00-08:30

New Approaches to the Treatment of Epilepsy, Neuropathic Pain, Anxiety and OUD Using alp2/alp3 Biased GABAkines

James M. Cook, University of Wisconsin, Milwaukee, WI

08:30-09:00

PET-Tracer Imaging Combined with Target Site Physiologically-Based Pharmacokinetics Enables Precision Dosing

Imke Bartelink, Amsterdam UMC location VUmc, The Netherlands

Sponsor Talks

09:00-09:20

Cellular Access Granted: Cracking Codes with Morpholinos

Jon D. Moulton, Operations Manager, Gene Tools, LLC, Corvallis, OR

09:20-09:40

Overcoming the Trade-Off Between Speed and Accuracy in Computer-Aided Drug Design

Abhishek Kognole, Application Scientist, SilcsBio LLC, Baltimore, MD

09:40-10:00

Accelerating your API into the Clinic – Getting GMP Ready

David Fengas, Director -CMC Services, Concept Life Sciences, UK

10:00-10:20 Coffee Break @ Foyer

Oral Presentations

Drug: Discovery | Development | Delivery | Therapy-1

Chair: Courtney Finch, Director, Sabin Vaccine Institute, Washington, D.C.

10:20-10:40 **Cannabinoid Receptors**
Alexandros Makriyannis, Northeastern University, Boston, MA

10:40-11:00 **Accelerating Natural Product Discovery and Production with Synthetic Biology**
David Mead, CEO & Co-Founder, Terra Bioforge, Middleton, WI

11:00-11:20 **Dodecafluoropentane Emulsion as a Cerebroprotectant in Ischemic Stroke**
Evan Unger, President & CEO, NuvOx Pharma, Tucson, AZ

11:20-11:40 **Safety and Efficacy of Potent ChAd3-based Vaccines for Marburg Virus and Sudan Virus Diseases**
Courtney Finch, Director, Sabin Vaccine Institute, Washington, D.C.

11:40-12:00 **Aerosol Delivery of Surfactant for ARDS**
Donovan Yeates, CEO, KAER Biotherapeutics, Escondido, CA

12:00-12:20 ***In Vitro* Human Tissue Models for Screening Pharmaceutical Compounds and Drug Delivery**
Seyoum Ayehunie, CSO, MatTek Corporation, Ashland, MA

12:20-12:40 **Discovery and Preclinical Development of P-21 for Hypercholesterolemia, a Liver-Targeted Nanoformulation of a Small Molecule PCSK9/LDLR Antagonist**
Harold V. Meyers, Vice President-Chemistry, Shifa Biomedical Corp., Malvern, PA

12:40-13:30 Lunch @ Salon A, B, C

Chair: Harold V. Meyers, Vice President-Chemistry, Shifa Biomedical Corp., Malvern, PA

13:30-13:50 **Gene Replacement Therapy for Treating MPS I: Development of Self-Complementary AAV-IDUA Vector by Compact Genome Engineering**
Haiyan Fu, President & Founder NeuroGT, Inc., Chapel Hill, NC

13:50-14:10 **Development of Systemic rAAV9-hNAGLUop Gene Replacement Therapy for the Treatment of MPS IIIB towards Clinical Application and Commercialization**
Jennifer Siedman, Director, NeuroGT, Inc., Chapel Hill, NC

14:10-14:30 **Oil Encapsulating Oligopeptides: Nano-Carrier Applications for BCS Class II-IV Drugs**
Michael Coe, CSO, Phoreus Biotechnology, Inc., Olathe, KS

14:30-14:50 **Novel Formulations with EC16 Nanoparticles for Intranasal Delivery Against Long COVID**
Stephen Hsu, Chairman & CEO, Camellix LLC, Evans, GA

14:50-15:10 **Discrete Multiwalled Carbon Nanotube Mediated Delivery of Monoclonal Antibody Encoded Plasmid DNA for HIV Treatment**
Aaron Foote, Director-Technology Development, BioPact, Austin, TX

15:10-15:30 **SimplePath II: A Cell-free Enzymatic Platform for Cannabinoid Biosynthesis**
Tyler Korman, Director-R&D, Invizyne Technologies, Inc., Monrovia, CA

15:30-15:45 Coffee Break @ Salon A, B, C

Chair: Arthur Vandenbark, Oregon Health & Science University, Portland, OR

15:45-16:05 **Discovery and Development of a Dual Rac1/Cdc42 Inhibitor**
Cornelis P Vlaar, University of Puerto Rico, San Juan, PR

16:05-16:25 **Repurposing an Anti-Depressant to Treat Osteoarthritis**
Fadia Kamal, Pennsylvania State University, Hershey, PA

16:25-16:45 **Pharmacovigilance Agreements: Negotiating Safety Data Exchange Timelines: To Agree to Disagree? That is the Question**
Yvonne Gibble, Executive Director, Merck, North Wales, PA
Wendy Manko Singer, Associate Vice President, Merck, North Wales, PA

16:45-17:05 **Development of Portable Drug-Device for Generation and Delivery of Inhaled Nitric Oxide for the Treatment of Pulmonary Hypertension**
Nagababu Enika, University of Alabama at Birmingham, Birmingham, AL

17:05-17:25 **Therapeutic Potential of DRhQ for Treatment of Neuroinflammatory Diseases**
Arthur Vandenbark, Oregon Health & Science University, Portland, OR

17:25-17:45 **Protein Expression/Secretion Boost by a Novel Unique 21-mer cis-regulatory motif (Exin21) via mRNA Stabilization**
Wenhui Hu, Temple University, Philadelphia, PA

17:45-18:30 Sponsor-Exhibitor Time & Poster Presentations @ Foyer Area

PRDP-01 **Accelerating Development and Scalable Manufacture of Biologics: The inGenius® Platform**
Masha Kononov, Director-Business Development, Ingenza Ltd., Raleigh, NC

PRDP-02 **Causal Inference for Multivalued Interventions: The Impact of Commercial Calls on Prescriber Activation and Productivity**
Goran Lazarevski, Data Scientist, Pfizer, New York, NY

PRDP-03 **Uncovering Excipient-Protein Interactions with SILCS-Biologics**
Asuka Orr, Scientist - Computational Drug Design, SilcsBio LLC, Baltimore, MD

PRDP-04 **Investigating the Structure-Activity Relationships of a Novel Series of Antifungal Agents Targeting *Candida albicans***
Lalit K. Golani, Northeastern University, Boston, MA

PRDP-05 **The Mechanism of Action of ENA-001, a Novel Respiratory Stimulant**
Errol Gould, Head of Medical Affairs, Enalare Therapeutics Inc., Princeton, NJ

PRDP-06 **S-nitroso-N-acetylcysteine as an Alternative Drug to Organic Nitrates for the Treatment of Hypertensive Crisis and Congestive Heart Failure**
Nagababu Enika, University of Alabama at Birmingham, Birmingham, AL

PRDP-07 **CUBIC: A Highly Optimized Whole-Organ Clearing, 3D Staining, and 3D Imaging for Biomedical Applications**
Yoji Otsuki, Executive Officer, CUBICStars, Inc., Japan

PRDP-08 **SAM Raman Vibrations as a Label-Free Probe for Sensing Non-Covalent Interactions in SET/79 Methyltransferase Active Site**
Isaiah Odeyemi, The University of Texas at Dallas, Richardson, TX

PRDP-09 **DILI with Beta-Lactam Antibiotics in the All of Us Research Program**
Shaopeng Gu, University of South Dakota, Sioux Falls, SD

PRDP-10 **Bioavailability Assessment of Metformin Hydrochloride Rectal Suppositories in Human Volunteers**
Abdelazim A Zaghloul, Kuwait University, Kuwait

PRDP-11 **Preemptive TPMT Genotyping and Adherence to Genotype-Based Therapeutic Recommendations Reduces the Healthcare Cost in Patients Receiving Treatment with Thiopurines for Autoimmune Diseases**
Sarahi Elizabeth Valdez Acosta, Hospital Universitario 12 de Octubre, Spain

PRDP-12 **pH-Responsive Nanoparticles for Regulating Metal Ions in Immunomodulation for Enhanced Cancer Immunotherapy**
Kyoung Sub Kim, The Catholic University of Korea, South Korea

End of Day-1

Notes

DAY 02 Parallel Session-1

FEBRUARY 27, 2024
IN-PERSON - @ Salon E

Join the meeting
https://us06web.zoom.us/j/85328791191?pwd=b6dM1gDDbDVgD45CQ5YRTwuSC6847w.1
Meeting ID: 853 2879 1191
Passcode: 391891

Drug: Discovery | Development | Delivery | Therapy-2

Chair: Maliha Zahid, Mayo Clinic, Rochester, MN

08:00-08:20 **Enabling Device Technologies for Challenging Drug Delivery Applications**
Asmita Khanolkar, Sr. Director, SMC Ltd, Boston, MA

08:20-08:40 **A Novel Bacteria-Specific Pro-Photosensitizer**
Mei X. Wu, Massachusetts General Hospital, Boston, MA

08:40-09:00 **Cardiac Targeting Peptide: From Discovery to Application**
Maliha Zahid, Mayo Clinic, Rochester, MN

09:00-09:20 **Inhibition of Tau-SH3 Interactions for Alzheimer's Disease**
Corinne E. Augelli-Szafran, Vice President, Southern Research, Birmingham, AL

09:20-09:40 **A Dual Optical-Electrical Nanosensor to Enable Quality Control of Drug-loaded Liposome and Gene Therapy Vehicle Preparations at Single Nanoparticle Resolution**
Georgios Alexandrakis, University of Texas at Arlington, Arlington, TX

09:40-10:00 **Use of Programmable Milk Extracellular Vesicles for Editing Genes and Delivering Therapeutics**
Janos Zempleni, University of Nebraska-Lincoln, Lincoln, NE

10:00-10:20 **Mitochondrial Therapeutics for ALS**
Ronald Davis, UF Scripps, Jupiter, FL

10:20-10:35 **Coffee Break** @ Foyer

Chair: David Imagawa, UC Irvine Medical Center, Orange, CA

10:35-10:55 **Exploration of "Ferroxazide/Ferrazone" Derivatives as Potential Novel Antileishmanial Therapeutics: Design, Synthesis, and *In Vitro* Efficacy**
David N'Da, North-West University, South Africa

10:55-11:15 **NMDA Receptor Partial Agonists for the Treatment of Acquired Epilepsy and Neuropathic Pain**
Xiaoming Jin, Indiana University, Indianapolis, IN

11:15-11:35 **Development of a Novel Drug Delivery Platform for Liver Cancer**
David Imagawa, UC Irvine Medical Center, Orange, CA

11:35-11:55 **Preclinical Development of a Novel eNAMPT-Neutralizing mAb for Pulmonary Hypertension**
Joe G.N. Garcia, University of Florida, Jupiter, FL

11:55-12:15 **A Botanical Drug Efficacious Against Multiple Stages of Tuberculosis**
Pamela Weathers, Worcester Polytechnic Institute, Worcester, MA

12:15-12:35 **Bioequivalence and Interchangeability between Reference and Generic Drugs**
Philippe Lechat, Paris-City University, France

12:35-12:55 **Amplification of Trained Immunity in Infections and Cancer by New Proprietary Combination of beta-Glucans**
Mihai Netea, Radboud University, The Netherlands

12:55-13:40 **Lunch** **@ Commonwealth**

Chair: Yuping Bao, The University of Alabama, Tuscaloosa, AL

13:40-14:00 **Development of miCas9 for Gene Editing**
Jie Xu, University of Michigan, Ann Arbor, MI

14:00-14:20 **Small Molecule UBA1 Activity Enhancers: Therapeutic Opportunities for Restoring Proteostasis in Diseases and Aging**
Shengyun Fang, University of Maryland, Baltimore, MD

14:20-14:40 **Magnetic Screening Nanoplatform with Immobilized Transmembrane Receptors for Drug Discovery**
Yuping Bao, The University of Alabama, Tuscaloosa, AL

14:40-15:00 **Efficacy of Biofilm Disrupters Against *Candida auris* and Other *Candida species* in Monomicrobial and Polymicrobial Biofilms**
Matthew Myntti, President, Next Science, Jacksonville, FL

15:00-15:20 **Small Molecule Exercise Mimetics as Novel Anti-obesity Drugs**
Thomas P Burris, University of Florida, Gainesville, FL

15:20-15:40 **Discovery and Development of a First-in-class Small Molecule Degrader Targeting Polo-like Kinase 1 (PLK1)**
So Young Yoon, Aevisbio,Inc., South Korea

15:40-15:55 **Exhibitor Time & Coffee Break** **@ Foyer**

Chair: Nadezhda A German, Texas Tech University Health Sciences Center, Amarillo, TX

15:55-16:15 **Bioengineering Approaches to Accelerate Clinical Translation of Cell-based Therapies**
Madhu Dhar, The University of Tennessee, Knoxville, TN

16:15-16:35 **Developing Safe Polypharmacology Agents for the Treatment of TNBC**
Nadezhda A German, Texas Tech University Health Sciences Center, Amarillo, TX

16:35-16:55 **Assessment of Nonlinear Dose Response Relationships *via* Nonparametric Regression**
Hua Liang, George Washington University, Washington, DC

16:55-17:15 **Targeting the Dorsal Root Ganglion: Combined Na,K-ATPase Antagonist and Electrical Stimulation for Chronic Pain Management**
Bin Feng, University of Connecticut, Storrs, CT

17:15-17:35 **Superseding Limitations of Transformer Models in Drug Discovery: The Case For Reason-Driven AI**
Nicholas Belmore, Harvard University, Cambridge, MA

17:35-17:55 **Efforts in Advancing Microbiome Therapeutic Cancer Clinical Research: Research Needs, Grant Portfolios and Resources**
Dan Xi, National Cancer Institute, NIH, Rockville, MD

DAY 02 Parallel Session-2

FEBRUARY 27, 2024
IN-PERSON - @ Salon F, H

Join the meeting
https://us06web.zoom.us/j/83104519160?pwd=Zaj1aK9k9jJkoLzeoNxS6lJLc4sBkP.1
Meeting ID: 831 0451 9160
Passcode: 213412

Industry: Clinical Trials | Analysis | Product Development

Chair: Emilio Sacristan, CEO, Neurospire, Mexico

08:00-08:20 **Temporal Association Rule Mining: Race-based Patterns of Treatment-adverse Events in Breast Cancer Patients Using SEER-Medicare Dataset**
Nabil Adam, NJMS, Rutgers University, Newark, NJ

08:20-08:40 **Magnetic Stimulation of the Facial Nerve as an Emergency Treatment for Ischemic Stroke**
Emilio Sacristan, CEO, Neurospire, Mexico

08:40-09:00 **Validating Automated Photoreceptor Analytics Software for Degenerative Eye Disease Research and Biopharma Clinical Trials**
Eric Buckland, Founder & CEO, Translational Imaging Innovations, Hickory, NC

09:00-09:20 **Fully Automated and DoE-Based Development of an Oral Solid Dosage Form**
Thomas Brinz, Director-Pharma Services, Syntegon Technology GmbH, Germany

09:20-09:40 **Technologies that Make Lab of the Future and Drive Collaborative Innovation**
Lukasz Paciorkowski, Chief Strategy Officer, A4BEE, Poland

09:40-10:00 **Modularity and Plug-n-Play Impact on Biotech**
Klaudia Kozusznik, Head of Growth, A4BEE, Poland

10:00-10:20 **A Structured Benefit-risk Assessment Operating Model for Investigational Medicinal Products in the Pharmaceutical Industry**
Jiyoon Park, Principal AI Scientist, AstraZeneca, Gaithersburg, MD

10:20-10:35 Coffee Break @ Foyer

Chair: Rebeca Ruiz, Principal Scientist, Pion Inc., UK

10:35-10:55 **Unleashing the Potential of Algorithm-based Models in the Development of Directly Compressible Dosage Forms**
Nitin K Swarnakar, NA App. Manager, BASF Corp, Tarrytown, NY

10:55-11:15 **DT-678, a Prodrug in Clinical Development that Efficiently forms Clopidogrel's Active H4 Metabolite without Hepatic Activation**
Jessica E. Reed, Vice President of Development, Diapin Therapeutics LLC, Ann Arbor, MI

11:15-11:35 **Whole-body/organ Imaging with Single-cell Resolution by CUBIC**
Hiroki R. Ueda, RIKEN Center for Biology Dynamics Research (BDR), UK

11:35-11:55 **Strategies to Improve Solubility and Dissolution of Pharmaceutical Drugs in GI-Media**
Rebeca Ruiz, Principal Scientist, Pion Inc., UK

11:55-12:15 **Report of the R&D Process of a Traditional Medicine named Sunkovir in Treatment of Covid-19, Flu, and Diseases Caused by Respiratory Viruses**
Nguyen Thi Huong Lien, Co-founder& CEO, Sao Thai Duong JSC, Vietnam

12:15-12:35 **Platform Headspace Gas Chromatography Method for High-throughput Determination of Residual Solvents in Pharmaceutical Materials**
Xun Guo, Sr. Scientist, Biogen Inc, Cambridge, MA

12:35-12:55 **Substance Identification and Decision Criteria in Doping Control**
Mats Larsson, Stockholm University, Sweden

12:55-13:40 Lunch @ Commonwealth

Chair: Stephanie P Farmer, Founder & President, BioData Solutions, Lawrence, KS

13:40-14:00 **Multi-Vitamin Injection Solution: HPLC/MS Analysis of Riboflavin Sodium Phosphate Consisting of Several Structural Isomers Together with Thiamine HCl, Pyridoxine HCl, Dexpanthenol, and Nicotinamide**
Stanislav Yefimov, Chemist Analyst, PharmetricLab, St Petersburg, FL

14:00-14:20 **Importance of Electrode Selection and Number in Reconstructing Standard Twelve Lead Electrocardiograms**
Adam A Butchy, Co-founder, HEARTio, Pittsburgh, PA

14:20-14:40 **COVID Spike Protein Production in Fungi for the Pharmaceutical Industry**
Marco Casteleijn, Research Team Lead, VTT Technical Research Centre of Finland, Finland

14:40-15:00 **Single, Innovative Peptide Sequence Drives Three Distinct Nanoparticle Drug Delivery Systems "Aqueous Partitioning Capsules:**
David Schaefer, CEO, Phoreus Biotechnology, Inc, Olathe, KS

15:00-15:20 **Risk Mitigation Strategies in the Prevention of Post Exposure Prophylaxis (PEP) Failures for Rabies**
Jerry Siegel, The Ohio State University, Columbus, OH

15:20-15:40 **Breaking Down the CGTP Developmental Barriers with Life Saving Insights and Tool**
Stephanie P Farmer, Founder & President, BioData Solutions, Lawrence, KS

15:40-15:55 Coffee Break @ Foyer

Chair: Allison L. Stelling, University of Texas at Dallas, Richardson, TX

15:55-16:15 **Solution-State Infrared Spectroscopic Evidence for the Presence of Multiple Conformers of s-adenosyl-l-methionine When Bound to the Lysine methyltransferase, SET7/9**
Allison L. Stelling, University of Texas at Dallas, Richardson, TX

16:15-16:35 **CancerKG.ORG: A Novel AI Information Retrieval System and Knowledge Graph for Cancer Treatment and Care**
Michael Gubanov, Florida State University, Tallahassee, FL

16:35-16:55 **Parametric and Nonparametric Methods for Confidence Intervals and Sample Size Planning for Win Probability in Parallel-group Randomized Trials with Likert Item and Likert Scale Data**
Guangyong Zou, Western University, Canada

16:55-17:15 **High Activity of N-Acetylcysteine in Combination with Beta-lactams against Carbapenem-Resistant *Klebsiella pneumoniae* and *Acinetobacter baumannii***
Maria Teresa Mascellino, Sapienza University, Italy

17:15-17:35 **Poloxamers: Individual, Versatile and Safe**
Jason Wood, Technical Manager, BASF Corporation, Tarrytown, NY

17:35-17:55 **Anti-IL-1R7 in IL-18-Mediated Hyperinflammation and Diseases**
Suzhao Li, University of Colorado Denver - Anschutz, Aurora, CO

End of Day-2

DAY 03

FEBRUARY 28, 2024
IN-PERSON - @ Salon E

Join the meeting
https://us06web.zoom.us/j/85328791191?pwd=b6dM1gDDbDVgD45CQ5YRTwuSC6847w.1
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Passcode: 391891

Oral Presentations

Pharmacology | Pharmacotherapy

Chair: Veluchamy Barathi, Singapore Eye Research Institute, Singapore

08:00-08:20 **Impact of Siglecs on Autoimmune Diseases**
Katarzyna Brzezicka, Scripps Research, La Jolla, CA

08:20-08:40 **Targeting TAK1 in Autoimmune Diseases**
Scott Scarneo, Founder, Director R&D, EydisBio Inc., Durham, NC

08:40-09:00 **Medicinal Cannabis and the ´Entourage Effect´ – A Pharmacological Perspective**
Catalina Christensen, Scientist, Tetra Pharm Technologies ApS, Denmark

09:00-09:20 **Chemotherapy Associated Cardiotoxicity and Drug Development**
Jean-Bernard Durand, MD Anderson Cancer Center, Houston, TX

09:20-09:40 **Unveiling a Promising Therapeutic Approach: Propranolol Boosts Antifungal Efficacy of Azoles in Invasive Candidiasis**
Veluchamy Barathi, Singapore Eye Research Institute, Singapore

09:40-10:00 **DT-109 and its Beneficial Effects on Nonalcoholic Steatohepatitis in Nonhuman Primates**
Y Eugene Chen, University of Michigan, Ann Arbor, MI

10:00-10:20 **Sex Differences Involved in the Different Mechanisms of Cannabinoid Tolerance**
Josee Guindon, Texas Tech University Health Sciences Center, Lubbock, TX

10:20-10:35 Coffee Break @ Foyer

Chair: Guang ZHU, The Hong Kong University of Science and Technology, Hong Kong, SAR China

10:35-10:55 **Clean Smoke Disinfection to Sterilization Man Portable Kit for Expeditionary Medicine & Treatment**
Michael Banish, Sr. Scientist, Polaris Sensor Technologies, Huntsville, AL

10:55-11:15 **A New Technology Reveals Complexities in Oncogenic Receptor Function and Charts New Approaches for Drug Development**
Kalina Hristova, Johns Hopkins University, Baltimore, MD

11:15-11:35 **Targeting Exon 7-Associated 7TM C-Terminal Splice Variants of the mu Opioid Receptor Gene, Oprm1, for Mitigating Adverse Effects of Clinically Used mu Opioids Without Altering Analgesia in Pain Management**
Yingxian Pan, Rutgers New Jersey Medical School, Newark, NJ

11:35-11:55 **The Shared Role of Cholesterol in Neuronal and Peripheral Inflammation**
Scott B. Hansen, UF Scripps, Jupiter, FL

11:55-12:15	**Shikonin Induces ROS-dependent Apoptosis *Via* Mitochondria Depolarization and ER Stress in Adult T Cell Leukemia/Lymphoma** **Seiji Okada**, Kumamoto University, Japan	
12:15-12:35	**Selective C9orf72 G-Quadruplex-binding Small Molecules Ameliorate Pathological Signatures of ALS/FTD Models** **Guang ZHU**, The Hong Kong University of Science and Technology, Hong Kong, SAR China	
12:35-	**Lunch & Departures**	**@ Foyer**

End of Day-3

Notes

Zoom Platform Virtual Meeting Instructions

Join the Zoom Meeting

Join the meeting by clicking on a Zoom meeting link provided by the meeting host => follow the prompts to download and run Zoom => enter the meeting ID if prompted => click to join the audio (OR)
if you already have Zoom software installed in your system, simply open Zoom application, click 'join' and enter the meeting code.

Mute/Unmute & Audio Settings

Except for the chairman/moderator and the speaker, all attendees microphones will be muted by the host.

Q&A - Chat Function

The participants will submit their questions through the chat box and the moderator / chair of the session will pick the questions for the discussion.
To direct your question, tag the speakers name to the questions as you submit them to the chat (e.g., For Dr. Will Torres – Question 1).

Audience

We are anticipating over 300 attendees who will come from a range of professional backgrounds with a varied level of knowledge and expertise in technical and commercial aspects across the subject area.

For Speakers

You will be allowed to share your screen during your presentation.
Session chair will pick the questions from the participants and asks the speaker depending on the time available. In case if more questions are left in the chat box, we encourage speakers to answer via chat and continue the discussion.

For Poster Presenters

All the poster presentation recorded videos are made available to all the participants to view at any point of time at their convenience.

According to the program, the presenter will be available during the time slot for the Q&A.

Recording

The session will be recorded for training purpose and some for the video library. Most of the speakers have already consented to recording their presentation but please inform us otherwise if you have some content which should not be recorded.

If you have trouble in login or any technical issues, please write to contact@uniscigroup.net or call us at 469-854-2281.

DAY 04

FEBRUARY 29, 2024
VIRTUAL - (EASTERN TIME)

Join the meeting
https://us06web.zoom.us/j/85328791191?pwd=b6dM1gDDbDVgD45CQ5YRTwuSC6847w.1
Meeting ID: 853 2879 1191
Passcode: 391891

06:40-06:50 Opening Remarks & Introduction

Oral Presentations

PharmSciences

Chair: Norbert Nagel, Principal Research Scientist II, AbbVie, Germany

06:50-07:10 **Exploring the Role of Polyunsaturated Fatty Acid Ratios in Modulating Neuroinflammation in LPS Induced Microglia: A Comprehensive *in vitro* Analysis**
Handenaz Dere Yelken, Yeditepe University, Turkey

07:10-07:30 **Tableting-induced Mechanochemical Matrix Crosslinking: Towards Non-disintegrating Chitosan-based Sustained Drug Delivery Tablets**
Isra Dmour, The Hashimite University, Jordan

07:30-07:50 **Tranethosomal Gel for the Topical Delivery of Celecoxib: Formulation and Estimation of Skin Cancer Progression**
Waad Abdulkareem Samman, Taibah University, Saudi Arabia

07:50-08:10 **A Survey of Elastase-producing Bacteria and Characteristics of the Most Potent Producer, *Priestia megaterium* gasm32**
Essam Kotb, Imam Abdulrahman Bin Faisal University, Saudi Arabia

08:10-08:30 **Optimizing Lyophilization Processes of Biologics Using an XRPD Climate Chamber**
Norbert Nagel, Principal Research Scientist II, AbbVie, Germany

08:30-08:40 Break

Keynote Presentations

Moderator: Siddharth Prabhu, Process Development Scientist, Amgen, Thousand Oaks, CA

08:40-09:10

Biased Signaling Modulators of the A3 Adenosine Receptor
Kenneth A. Jacobson, National Institutes of Health, Bethesda, MD

09:10-09:40

Mimicking Brain Response to Damage: The Discovery of Novel Neuroprotective Molecules for Neurodegenerative Diseases, Stroke and Traumatic Brain Injury (TBI)
Nicolas G. Bazan, Louisiana State University, New Orleans, LA

09:40-10:10

Small Molecules Targeting microRNAs
George A. Calin, MD Anderson Cancer Center, Houston, TX

10:10-10:20 **Break**

Oral Presentations

Chair: Francois Marceau, Laval University, Canada

10:20-10:40 **Model-informed Drug Development in Oncology Early Clinical Development: Case Study for Dose Selection**
Cen Guo, Associate Director, Pfizer, San Diego, CA

10:40-11:00 **Parts per Billion of Nitrite in Microcrystalline Cellulose by Ion Chromatography Mass Spectrometry with Isotope Labeled Internal Standard**
Koudi Zhu, Sr. Analytical Specialist, International Flavor & Fragnances Inc., Midland, MI

11:00-11:20 **Case Studies: Using *In Vitro* and *In Vivo* Tools to Assess the Potential Immune Impact of Biotherapeutic Attributes**
Allyson Capili, Scientist, Amgen, Thousand Oaks, CA

11:20-11:40 **Proteoglycans as Potential New Targets to Treat Pulmonary Edema**
Andreia Chignalia, University of Arizona, Tucson, AZ

11:40-12:00 **Drugs of the Kallikrein-Kinin System**
Francois Marceau, Laval University, Canada

12:00-12:20 **Ultrafast and Precise External Beam Monitor for FLASH and Other Advanced Radiation Therapy Modalities**
Peter S Friedman, President & CEO, Integrated Sensors, LLC, Palm Beach Gardens, FL

12:20-12:30 **Break**

Chair: Allyson Capili, Scientist, Amgen, Thousand Oaks, CA

12:30-12:50 **Preclinical Development of ACXT-3102 for the Treatment of Pancreatic Adenocarcinoma (PDAC)**
Bradley T. Keller, President & CEO, Accuronix Therapeutic Inc., St., Louis, MO

12:50-13:10 **Microplasma-based Advanced Oxidation Process for Waste Water Treatment**
Alexander Gutsol, Chief Scientist, LDS Technology Consultants, Inc., Warwick, PA

13:10-13:30 **The Effects of Obesity on the Pharmacokinetics and Pharmacodynamics of Soft Nanoparticles in Mice**
Paul Dalhaimer, The University of Tennessee, Knoxville, TN

13:30-13:50 **Novel Antibody Targeting Soluble NKG2D Ligand sMIC Resulted Long-Term Complete Response of Tumors**
Jennifer Wu, Northwestern University, Chicago, IL

13:50-14:10 **Towards Clinical Trial Design using Explainable AI and Real World Data**
Aniruddha Datta, Texas A&M University, College Station, TX

14:10-14:30 **Assessing Clinical Impacts of Drug Product Attributes**
Siddharth Prabhu, Process Development Scientist, Amgen, Thousand Oaks, CA

14:30-14:40 Break

Chair: Miguel A. Cruz, Baylor College of Medicine, Pearland, TX

14:40-15:00 **Pharmacovigilance & Medication Adherence Monitoring**
Prabhakar Goriparthi, CEO, Montuno Health, Inc, Ashburn, VA

15:00-15:20 **Gloveless Robotic Isolator Technology: Mitigating Biopharma Industry's Implicit biases on Contamination Control, from an Early Adopter of Advanced Aseptic Technology**
Joseph McCall, Director, QA Technical Service, ADMA Biologics, Boca Raton, FL

15:20-15:40 **Incarnatoside and Stachysoside C Isolated from *Scutellaria incarnata* Exert Neuroprotective Effects on Neuronal Cells Exposed to C2-Ceramide**
Carlos Alberto Vásquez-Londoño, Universidad Nacional de Colombia, Colombia

15:40-16:00 **Targeting Fibrin as a Novel Treatment for Coagulopathy and DIC**
Miguel A. Cruz, Baylor College of Medicine, Pearland, TX

16:00-16:20 **Dual Sigma Antagonists/DAT Inhibitors as a Novel Treatment for Stimulant Use Disorder**
Christopher R. McCurdy, University of Florida, Gainesville, FL

16:20-16:40 **Brain-penetrant Glycopeptide Drugs: A General Platform for Conversion of Endogenous Peptide Hormones into Drugs for Behavior and Neurodegeneration**
Robin Polt, The University of Arizona, Tucson, AZ

We wish to see you at

Pharma R&D-2025

February 24–26, 2025 | San Francisco, CA

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