SUNDAY - MARCH 3, 2019

4:00 pm – 7:00 pm
Welcome Reception and Registration in the Granby Ballroom Foyer, Third Floor

MONDAY - MARCH 4, 2019

7:00 am – 8:00 am
Registration and Breakfast in the Granby Ballroom Foyer, Third Floor

8:00 am – 8:30 am
Meeting Overview in Momentum, Third Floor

8:30 am – 9:15 am
Evaluating Light-Scattering Methods for AAV Characterization
Darren W. Begley
Ultragenyx Pharmaceutical

3D In Vitro Screening for Cancer Immunotherapies
Lindsey Ott, PhD
Likarda, LLC

Producer Cell Line for Gene Therapy Development
Lois Horton
Sanofi Genzyme

Keeping Pace with Product Development: Synergies Between Quality, Nonclinical, and Clinical Programs
Debra A. Webster, PhD
Cardinal Health

Baculovirus Biopesticides: Progress Towards Reaching Commercially Viable Yields of Bioreactor-Produced Occlusion Bodies by Exploring Gene Knock-Ins and CRISPR/Cas9 Knock-Outs of Production Cell Lines
Henry de Malmanche
University of Queensland

High-Yield Viral Vaccine Production: Process Options and Monitoring
Udo Reichl
Max-Planck-Institute for Dynamics of Complex Technical Systems

9:15 am – 10:00 am
Producer Cell Line for Gene Therapy Development
Lois Horton
Sanofi Genzyme

Keeping Pace with Product Development: Synergies Between Quality, Nonclinical, and Clinical Programs
Debra A. Webster, PhD
Cardinal Health

Baculovirus Biopesticides: Progress Towards Reaching Commercially Viable Yields of Bioreactor-Produced Occlusion Bodies by Exploring Gene Knock-Ins and CRISPR/Cas9 Knock-Outs of Production Cell Lines
Henry de Malmanche
University of Queensland

10:00 am – 10:30 am
Morning Break in the Exhibit Area
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td><strong>MONDAY</strong></td>
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<tr>
<td>10:30 am – 11:00 am</td>
<td>Technology Workshop: Engineering Better Viral Vectors Using Machine Learning and Synthetic Biology</td>
<td>ATUM, Third Floor</td>
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<td>11:00 am – 11:30 am</td>
<td>Requirements for Platform Purification of AAV BIA Separations</td>
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<td>11:30 am – 12:00 noon</td>
<td>Optimized Quantification Methods to Determine the Portion of Full AAV Capsids and Avoid Empty and Disrupted Particles</td>
<td>Vironova AB, Third Floor</td>
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<td>12:00 noon – 1:30 pm</td>
<td>Lunch in the Exhibit Area (Poster Session from 1:00 – 1:30 pm)</td>
<td>Third Floor</td>
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<td>1:30 pm – 2:15 pm</td>
<td>The Therapeutic Potency of Stromal Cell Derived Extracellular Vesicles</td>
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<td>2:15 pm – 3:00 pm</td>
<td>Regulatory Updates for Virus-Based Human Gene Therapy Products</td>
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<td>3:30 pm – 4:15 pm</td>
<td>AAV and Baculovirus Vectors for the Treatment of Hyperammonemia Caused by Liver Failure</td>
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<td>4:15 pm – 5:00 pm</td>
<td>Overview of Recombinant Adeno-Associated Virus (rAAV) Production and Challenges in Development and Manufacturing Scale</td>
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<td>5:00 pm – 7:00 pm</td>
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<td><strong>TUESDAY</strong></td>
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<td>7:30 am – 8:30 am</td>
<td><strong>In Vitro Approaches to Demonstrating Potency of Gene Therapy Products</strong></td>
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<td>8:30 am – 9:15 am</td>
<td>Immunological Concepts of CAR T-Cell Therapies</td>
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<td><strong>Highly Efficient Production of VLP-Based Vaccines by a Bioreactor-Free Novel BEVS Technology</strong></td>
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<td>9:15 am – 10:00 am</td>
<td>Chemically Induced Extracellular Vesicles via Facile and Scalable Production and Purification</td>
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<td><strong>Suitability and Perspectives of Different Insect Cell Factories for the Production of Antimicrobial Peptides</strong></td>
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<td>10:00 am – 10:30 am</td>
<td>Cellular Cryoinjury and Potency – the Mesenchymal Stromal Cell Paradigm</td>
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<td><strong>Multivariate Data Analysis for Reduction of Variation in a Viral Vaccine Production Process</strong></td>
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### ISBioTech 9th Spring Meeting (continued): TUESDAY - MARCH 5, 2019

#### Viral Vectors & Extracellular Vesicles
**Momentum, Third Floor**

- **10:30 am – 11:15 am**
  - Current State of Exosome-Based Diagnostics
    - Johan Skog, PhD
    - Exosome Diagnostics, Inc.

- **11:15 am – 12:00 noon**
  - Triggering High-Yield Extracellular Vesicle Production for Regenerative Medicine
    - Amanda K.A. Silva
    - Université Paris Diderot

- **12:00 noon – 1:30 pm**
  - Lentivirus Reference Standard Working Group Meeting in Energy, Third Floor

#### Cellular Therapies
**Fusion, Third Floor**

- **10:30 am – 11:15 am**
  - Mitigating Supply Chain Challenges in Cell Therapies, and the Importance of Quality Apheresis — A Critical Starting Material
    - Mark Flower
    - Be The Match BioTherapies, National Marrow Donor Program (NMDP)

- **11:15 am – 12:00 noon**
  - Using Interactions Between Solutes to Improve Preservation of Lymphocytes
    - Chia-Hsing Pi
    - University of Minnesota

- **12:00 noon – 1:30 pm**
  - The Baculovirus-Based Over-Expression of Membrane Proteins for Structural Biology
    - Andrew Higley
    - Diamond Light Source Ltd

#### Baculovirus Expression Technology
**Energy, Third Floor**

- **10:30 am – 11:15 am**
  - MultiBac: From Multigene Complex Structures to Synthetic Viral Nanosystems (SVNs)
    - Imre Berger, PhD
    - University of Bristol

- **11:15 am – 12:00 noon**
  - The Baculovirus-Based Over-Expression of Membrane Proteins for Structural Biology
    - Andrew Higley
    - Diamond Light Source Ltd

- **12:00 noon – 1:30 pm**
    - Hazel Aranha, PhD
    - Sartorius Stedim North America Inc.

#### Viral Vaccines
**Paul D. Fraim Center for Excellence, Fourth Floor**

- **10:30 am – 11:15 am**
  - Bioprocessing of Cells and Exosomes for Regenerative Medicine
    - Ivan Wall, PhD
    - Aston University

- **11:15 am – 12:00 noon**
  - Emerging Methods for Exosome Purification and Process Monitoring
    - Peter Gagnon
    - BIA Separations

- **12:00 noon – 1:30 pm**
  - Baculovirus Platform for Rapid Manufacturing of Seasonal Flu Vaccine at Large-Scale
    - Jamal Meghrou, PhD
    - Protein Sciences Corporation, A Sanofi Company

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**Lunch in the Exhibit Area (Poster Session from 1:00 – 1:30 pm)**

- **1:30 pm – 2:15 pm**
  - Development of the First World Health Organization (WHO) International Standard for Gene Therapy Adenovirus and Plasmid Components for the Vaccine-Based Immunotherapy Regimen
    - Lawrence C. Thompson, PhD
    - Pfizer, Inc.

- **2:15 pm – 3:00 pm**
  - Optimization of the Harvest and Clarification Steps for Purification of Sf9/Baculovirus-Derived rAAV Vectors
    - Jamal Meghrou
    - Protein Sciences Corporation, A Sanofi Company

- **3:00 pm – 3:30 pm**
  - Creation and Characterization of a New Generation of Glycoengineered Baculovirus Vectors
    - Ajaykumar Maghodia, PhD
    - University of Wyoming

**Afternoon Break in the Exhibit Area**

**Poster Finalist Presentations, Discussion, and Award** in the Paul D. Fraim Center for Excellence, Fourth Floor

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**Meeting Adjourns**

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*Due to circumstances beyond the control of meeting organizers, this program is subject to change without notice. REV 3/4/19*