

**USP Workshop on Raw Materials for Manufacturing of Biologics:
Best Practices and Quality Standards
April 12-16, 2021 Virtual Workshop
DRAFT AGENDA~ January 5, 2021**

Session One, Monday, April 12, 2021: Regulatory Considerations and Control Strategies

- 10:00 a.m. EDT** **USP Welcome**
Fouad Atouf
Vice President, Global Biologics, USP
- 10:10 a.m.** **Workshop Overview and Introduction to Session 1**
Christopher Bravery
*USP Raw Materials for Manufacturing of Biologics Workshop Steering Committee and
USP Bio5 Advanced Therapies Expert Committee member*
- 10:20 a.m.** **Title to be confirmed**
Ashutosh Rao
Chief, Laboratory of Applied Biochemistry, CDER, US FDA
- 10:45 a.m.** **Title to be confirmed**
TBD
US FDA
- 11:10 a.m.** **Key Quality Considerations for Sourcing Viral, Microbial or Plasmid DNA Vector
Procurement Services for Delivery of Gene Therapies**
Gary du Moulin
Consultant
- 11:35 a.m.** **BioPhorum Cell and Gene Therapy Raw Materials Risk Assessments and Plasmid
Specifications**
Lili Belcastro
Janssen; speaking on behalf of BioPhorum workstream
- 12:00 p.m.** **Break (10 min)**
- 12:10 p.m.** **New Understanding Relating to Existing Excipients and Formulation Approaches:
How Current Work to Update Compendial Specifications for Polysorbates can
Impact Formulation Approaches and Delivery Systems**
TBD
USP Excipients Expert Committee and Polysorbate Expert Panel
- 12:35 p.m.** **Panel Discussion and Q&A Moderated by Christopher Bravery and Mehrshid Alai**
*USP Raw Materials for Manufacturing of Biologics Workshop Steering Committee and
Bio5 Advanced Therapies Expert Committee members*
- 1:00 p.m.** **Adjourn**

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Session Two, Wednesday, April 14, 2021: Assessment of Quality and Suitability

- 10:00 a.m. EST** **Welcome to Session 2 and Highlights of Session 1**
Yao-Ming Huang
USP Raw Materials for Manufacturing of Biologics Workshop Steering Committee member
- 10:20 a.m.** **Analytical Aspects of Control and Characterization: Polysorbate case study**
Michael Jahn
Lonza
- 10:45 a.m.** **Applying Online Analytical Tools to Characterize Cell Culture Medium Preparation**
Gaurav Chauhan
Merck
- 11:10 a.m.** **Advanced Raw Material Control: Rapid ID and Raw Material Informatics**
Thomas Matthews
Biogen
- 11:35 a.m.** **Viral Safety of Raw Materials Used in Production of ATMPs**
Johannes Blümel
Head of Virus Safety Section, Paul-Ehrlich-Institut
- 12:00 p.m.** **Break (10 min)**
- 12:10 p.m.** **An Attribute Focused Approach to Identify and Control Raw Material Variability**
Jackie Milne
Amgen
- 12:35 p.m.** **Panel Discussion and Q&A Moderated by Yao-Ming Huang and Rajesh Patel**
USP Raw Materials for Manufacturing of Biologics Workshop Steering Committee members
- 1:00 p.m.** **Adjourn**

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Session Three, Friday, April 16, 2021: Minimizing Risk of Raw Materials and Supply Chain Disruptions

- 10:00 a.m. EST** **Welcome to Session 3 and Highlights of Session 2**
Bala Ramanathan
*USP Raw Materials for Manufacturing of Biologics Workshop Steering Committee and
USP Trace Metals in Cell Culture Media Expert Panel member*
- 10:20 a.m.** **A Combination of Strategic Planning and Technical Assessment to Overcome Raw Material Management Challenges**
Min Zhang
Thermo Fisher Scientific
- 10:45 a.m.** **Impact of Elemental Impurities in Biologics development and Manufacturing & Risk Management for Control Measures**
John Cunningham
Janssen
- 11:10 a.m.** **Practical Considerations for Gamma Irradiation of Serum**
Mark Plavsic
Lysogene
- 11:35 a.m.** **Establishing a Strategy to Study the Impact of Variability in Complex Raw Materials on Process Performance**
Sandeep Salunke
Takeda
- 12:00 p.m.** **Break (10 min)**
- 12:10 p.m.** **Raw Materials Quality: Requirements, Limitations, and Recommendations (from an Ancillary Material Manufacturer's Perspective)**
Patricia Chimot-Marolle
Cellgenix
- 12:35 p.m.** **Opportunities and Challenges in Raw Material and Starting Material Qualification for Cell and Gene Therapy Products**
Stefan Yohe
Genentech
- 1:00 p.m.** **Panel Discussion and Q&A Moderated by Bala Ramanathan and Clarice Hutchens**
USP Raw Materials for Manufacturing of Biologics Workshop Steering Committee members
- 1:30 p.m.** **Adjourn**