2nd Setting Specifications for Biological Products: A Pathway to Harmonization

December 2-3, 2019
USP Headquarters

This 2nd meeting will expand on considerations discussed in a September 2013 workshop and include participants from biotechnology medicinal products, vaccines, and gene & cell therapies. The goals of this workshop will be to explore the implications from lack of worldwide agreement on principles and practices in setting product specifications and discuss a pathway towards harmonization. Topics will include regulatory and scientific bases for specifications as part of an integrated biologicals control strategy, the roles of scientific and manufacturing data in establishing limits, and possible solutions to achieving worldwide harmonization. Data sources and statistical approaches for setting limits which ensure product quality will be discussed. The meeting will bring worldwide experts together to discuss issues related to harmonization of specifications and through discussion panels and pharmaceutical product class roundtables attempt to reach conclusions that will be valuable globally to public health. Expected outcomes of the workshop are a clear picture of the areas of disagreement across industry and among regulators, as well as similarities and differences among classes of biologicals. Delineation of the scientific principles of specifications and a roadmap towards regulatory harmonization will be explored. Areas of consensus and potential followup will be summarized at the end of the workshop and published in *Biologicals*.

Scientific / Organizing Committee

Tim Schofield	CMC Sciences, LLC	Shawn Novick	Consultant
Barry Cherney	Amgen	Laura Pack	Seattle Genetics
Kristi Griffiths	Eli Lilly & Company	Ned Moser	Pfizer
Tony Lubinecki	Consultant	Meiyu Shen	FDA/CDER
Brendan Hughs	BMS	Melody Gossage	Eli Lilly & Company
Yunsong Li	Catalent	John McKnight	Astra Zeneca
Dean Smith	Health Canada	Fiona Cornell	Health Canada
Mats Welin	Medical Product Agency	Robin Levis	FDA/CBER
Xianghong (Emily) Jing	FDA/CDER	Sumona Sarkar	NIST
Kris Barnthouse	Janssen		

Preliminary Program

Day 1 - Monday, December 2, 2019

7:30am	**Registration & Welcome Coffee**
8:00am	Introduction to the meeting and IABS **Tim Schofield**, on behalf of IABS
8:10am	Keynote presentation **Phil Krause,** FDA/CBER

Session 1 Current regulatory state and future challenges

This session will feature talks by industry and regulatory leaders on aspects of specifications that are viewed disparately between regulatory authorities as well as between authorities and manufacturers for vaccines, biotherapeutics, and cell and gene therapies. These differences of opinion include topics such as:

- *Attributes to be included in specifications;*
- *Basis for setting acceptance criteria for specifications;*
- *Role of Process Validation and In-Process Control testing versus the requirement for Drug Substance and Drug Product release testing and;*
- *Disagreements regarding the application of specifications to individual measurements within stability data.*

The primary focus for the session will be to initiate discussion in support of a roadmap, whereby global authorities and industry come to agreement on the scientific basis for control strategies and specifications. The session will conclude with a regulatory/industry panel discussion where conferees can extend the discussion towards identifying regional laws/practices that need to be considered in moving towards regulatory convergence for globally harmonized specifications for products.

Chairpersons: Anthony Lubinecki, Independent Consultant; **Dean Smith,** Health Canada

Regulatory/Industry Panel Facilitator: Kathy Zoon, NIH Emerita

Session 2 Uses and limitations of statistical approaches

This session will feature talks and a panel discussion which highlight statistical approaches and challenges as relates to supporting specification development for biopharmaceutical products, vaccines, and cell & gene therapies. A view towards globally harmonized scientifically defined limits will be highlighted, where statistical solutions provide assurance of satisfactory quality during manufacture, at release, and throughout the shelf life of the product. The roles of specification acceptance criteria and manufacturing limits will be underscored from the point of view of product lifecycle management and post approval change management. Designs of studies supporting the overall analytical control strategy will be presented as the bases for minimizing the uncertainty of decision rules and the associated risk to patients and manufacturing alike.

Chairpersons: Kristy Griffiths, Lilly; **Meiyu Shen**, FDA/CDER

Facilitator: Tsai-Lien Lin, FDA/'CBER

Day 2 – Tuesday, December 3, 2019

Session 3 Scientific and quality data supporting a harmonized approach to specifications

Developing specifications may be seen as a two-step process. In the first step, the overall control strategy is developed, and decisions are made as to how/where each CQA will be controlled within the manufacturing process and what attributes will be controlled as specifications. The second step involves selecting the appropriate test method and limits for the specifications. Scientific and quality data from a variety of sources, including pre-clinical and clinical studies, process data, published literature, and prior knowledge, can be used to inform each of these steps and this session will explore how and when to use these different sources of data, with the aim to increase our collective understanding of best practices. We will also explore some of the common ways for divergence of specifications to occur in an effort to begin to discuss ways to address these issues and increase the drive towards harmonization. Individual presentations will feature some of the most pressing issues in this area.

Chairpersons: Yunsong Li, Catalent; **Fiona Cornel**, Health Canada

Facilitator: Laura Pack, Seattle Genetics

Session 4 Breakout session: biotherapeutics, vaccines, and cell & gene therapies

Breakout sessions will be conducted with participants from biotherapeutics, vaccines, and cell & gene therapy. The goal of the session will be to address specific challenges and potential solutions for each of the 3 product classes, and to compile and compare these as an outcome of the workshop.

Chairperson: Kris Barnthouse, Janssen

Biopharmaceuticals Facilitator: Shawn Novick, Independent Consultant
Vaccines Facilitator: Mats Welin, Medical Products Agency, Sweden
Cell & Gene Therapy Facilitator: Sumona Sarkar, NIST