

**CDER SMALL BUSINESS AND INDUSTRY ASSISTANCE (SBIA)**

**REGULATORY BEST PRACTICES FOR GLOBAL ACCESS TO MEDICINES, INCLUDING ANTI-TB MEDICINES**



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**AUGUST 16-18**

Version 4 – Updated July 27, 2022

# Regulatory Best Practices for Global Access to Medicines, Including Anti-TB Medicines

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## AGENDA

All times are Eastern (EST UTC-4)

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### DAY ONE: Tuesday, August 16, 2022

8:30 – 8:45

#### SBIA Welcome and Administrative Overview

**Brenda Stodart, PharmD, MS, BCGP, RAC-US**

*Captain, United States Public Health Service*

*Director, Small Business, and Industry Assistance (SBIA)*

*Division of Drug Information (DDI) | Office of Communications (OCOMM) | CDER*

8:45 – 9:00

#### FDA Keynote

**Robert M. Califf, MD**

*Commissioner of Food and Drugs*

*Food and Drug Administration*

*(invited)*

#### Your SBIA Hosts for Day One

**Forest "Ray" Ford, PharmD, BCPS**

*Captain, USPHS*

*DDI | OCOMM | CDER*

**Renu Lal, PharmD**

*Lieutenant Commander, USPHS*

*DDI | OCOMM | CDER*

**Nora Lim, PharmD, BCPS**

*Lieutenant, USPHS, Pharmacist*

*SBIA | DDI | OCOMM | CDER*

**DAY ONE: Tuesday, August 16, 2022**

9:00 – 9:10

**USAID Keynote**

**Dr. Atul Gawande**  
*Assistant Administrator for Global Health*  
 United States Agency for International Development (USAID)

9:10 – 9:20

**WHO Keynote**

**Tereza Kasaeva, MD, PhD**  
*Director*  
 Global TB Programme  
 World Health Organization (WHO)  
*(invited)*

**Rogério Gaspar, PhD**  
*Director of Regulation and Prequalification*  
 WHO  
*(Invited)*

9:20 – 9:25

**USP Keynote**

**Ronald T. Piervincenzi, PhD.**  
*Chief Executive Officer*  
 United States Pharmacopeia (USP)

9:25 – 9:35

**Promoting the Quality of Medicines Plus (PQM+) Program**

This presentation provides an overview of the United States Agency for International Development (USAID) funded and United States Pharmacopeia (USP) led PQM+ program. PQM+ is a cooperative agreement between USAID and USP to sustainability strengthen medical product quality assurance systems in low and middle-income countries. The presentation outlines complex global challenges due to poor-quality medical products and how PQM+ is addressing these through a systems strengthening approach. The presentation will also provide a glimpse of PQM+ principles of maximizing impact through alignment and coordination at all levels; custom built capacity building strategies tailored to country needs; amplifying thought leadership and research; and delivering measurable results.

**Jude Nwokike**  
*Vice President & Director*  
 Promoting the Quality of Medicines Plus (PQM+) Program  
 U.S. Pharmacopeial Convention

**DAY ONE: Tuesday, August 16, 2022**

9:35 – 10:05

**WHO Prequalification Process for Medicines: Collaborative Registration Procedure for WHO Prequalified Medicines**

This presentation explains what drug prequalification process and WHO Collaborative Procedure for Accelerated registration of WHO Prequalified medicines are. How LMICs can benefit from these procedures and ensure timely access to quality-assured medicines. Emphasis will be made on TB medicines. Explains how FDA intersects with WHO for WHO prequalification program.

**Deus Mubangizi**

*Unit Head, Prequalification Unit (PQT)  
Regulation and Prequalification Department (RPQ)  
Access to Medicines and Health Products Division  
(MHP)  
World Health Organization (WHO)*

10:05 – 10:25

**Collaborative Registration Procedure for WHO Prequalified Medicines and Its Impact on Accelerated Registration and Timely Access to Quality-assured Medicines in LMICs**

This presentation explains the WHO Collaborative Procedure for Accelerated registration of WHO Prequalified medicines are. How LMICs can benefit from these procedures and ensure timely access to quality-assured medicines. Emphasis will be made on TB medicines. Explains how FDA intersects with WHO for WHO prequalification program.

**Hiiti B. Sillo**

*Unit Head, Regulation and Safety  
RPQ | MHP | WHO*

10:25 – 10:35

**Questions & Answer Panel**

**Deus Mubangizi, Hiiti B. Sillo**

10:35 – 11:05

**Opportunities for International Engagement: Regulatory Cooperation, Convergence and Harmonization**

This presentation will highlight various key international and regional initiatives that promote regulatory cooperation, convergence and harmonization, such as ICH, IPRP, ICMRA. FDA’s scientific engagements with WHO and support for regulatory systems strengthening in low-and-middle-income countries will also be discussed. Opportunities for regulatory engagement at both the leadership level, as well as in expert working groups, will be reviewed.

**C. Michelle Limoli, PharmD**

*Senior International Health Science Advisor  
CBER International Affairs  
Office of the Director (OD)  
Center for Biologics Evaluation and Research (CBER)  
FDA*

**11:05 – 11:20: BREAK**

11:20 – 11:50

**The New Drug Approval Process**

An overview of the review and approval process for a New Drug Application (NDA). Topics include the types of NDAs, contents and requirements of an NDA submission, the milestones of an NDA review, and communication opportunities before and during the review.

**Margaret M. Kober, RPh., MPA**

*Chief, Project Management Staff  
Office of Regulatory Operations (ORO)  
Office of New Drugs (OND) | CDER*

## DAY ONE: Tuesday, August 16, 2022

11:50 – 12:05

### ANDA Approval Process

An overview of the review and approval process for an Abbreviated New Drug Application (ANDA). This presentation includes the general contents and requirements of an ANDA submission and the overall lifecycle of an ANDA review. It also includes prioritization of review for specific types of ANDAs and the different actions that FDA may take on ANDAs.

**John Ibrahim, PharmD, BCPS**  
*Associate Director for Regulatory Affairs*  
Office of Regulatory Operations (ORO)  
Office of Generic Drugs (OGD) | CDER

12:05 – 12:20

### Questions & Answer Panel

**Michelle Limoli, Gopa Raychaudhuri, John Ibrahim,  
Margaret M. Kober**

12:20 – 12:25

### Day One Closing

**SBIA Staff**

**12:25: DAY ONE ADJOURN**

**DAY TWO: Wednesday, August 17, 2022**

8:30 – 8:40

**SBIA Welcome and Administrative Overview**

**Forest "Ray" Ford, PharmD, BCPS**  
*Captain, USPHS*  
 DDI | OCOMM | CDER

**Renu Lal, PharmD**  
*Lieutenant Commander, USPHS*  
 DDI | OCOMM | CDER

**Nora Lim, PharmD, BCPS**  
*Lieutenant, USPHS, Pharmacist*  
 SBIA | DDI | OCOMM | CDER

8:40 – 9:10

**Bringing New TB Drugs to Market: A Regulatory Perspective**

This session will provide an overview of regulatory pathways and designations utilized by the Food and Drug Administration to facilitate and expedite drug development for serious or life-threatening conditions including accelerated approval, fast track designation, breakthrough therapy designation, qualified infectious disease product designation (QIDP), and the Limited Population Pathway for Antibacterial and Antifungal Drugs (LPAD). Additionally, drug development programs for tuberculosis will be discussed with emphasis on clinical trial design, study populations and endpoints, including surrogate endpoints. The approvals of bedaquiline in 2012 and pretomanid in 2019 will be discussed.

**Ramya Gopinath, MD**  
*Medical Officer*  
 Division of Anti-Infectives (DAI)  
 OND | CDER

9:10 – 9:55

**FDA's Use of the Tentative Approval Pathway to Meet the Urgent Needs of PEPFAR (President's Emergency Plan for AIDS Relief)**

We will describe the use of the Tentative Approval Pathway for drug products to quickly get critical anti-retroviral medicines found acceptable for use into the areas of greatest need. This description will include some of the regulatory challenges that were faced especially during the early phases of the program, as well as the need to adapt review practices to meet the demand for timely drug product quality assessments. Maintenance and administration of the many tentatively approved PEPFAR drug products was also an area of innovation compared to previous practices. Finally, a description of the current state/scope of the PEPFAR program will be presented as demonstrated in the FDA PEPFAR website including the current PEPFAR drug product list.

**Tina T. Nhu PharmD, Mc. PM, BS Pharm**  
*Commander (CDR), USPHS*  
*Team Leader, Regulatory Project Manager*  
 Division of Project Management (DPM)  
 Office of Generic Drugs (OGD) | CDER

**Peter Capella, PhD**  
*Director*  
 Division of Immediate and Modified Release  
 Products II (DIMRPII)  
 Office of Lifecycle Drug Products (OLDP)  
 Office of Pharmaceutical Quality (OPQ)  
 CDER | FDA

**Monica Zeballos**

**DAY TWO: Wednesday, August 17, 2022**

9:55 – 10:25

**Project Facilitate: An Overview of Expanded Access and the Review Process**

Expanded Access, also known as Compassionate Use, is a potential pathway for a patient with an immediately life-threatening condition or serious disease or condition to gain access to an investigational medical product (drug, biologic, or medical device) for treatment outside of clinical trials when no comparable or satisfactory alternative therapy options are available. Project Facilitate was launched in June 2019 to provide a comprehensive program to support health care professionals in submitting oncology Expanded Access requests. This presentation will provide an overview of the oncology Expanded Access pathway and how Project Facilitate is making the process more accessible to oncologists around the nation. Project Facilitate will also provide insight into their regulatory and clinical review process.

**Mitchell Chan, PharmD, BCPS**  
*Lieutenant Commander, USPHS*  
*Clinical Analyst*  
*Team Leader, Project Facilitate*  
 Oncology Center of Excellence (OCE) | FDA

10:25 – 10:40

**Questions & Answer Panel**

**Ramya Gopinath, Tina Nhu, Peter Capella, Monica Zeballos, Mitchell Chan**

**10:40 – 10:55: BREAK**

10:55 – 11:25

**Stability – Why Do We Care? / Justifying Your Product!**

The session will discuss expectations for product stability. It will provide a discussion of the purpose of stability requirements. It will include general topics for consideration in developing an appropriate stability program. Guidance used by the FDA during stability evaluation, including shelf-life, will be described

**Frank O. Holcombe, Jr. PhD**  
*Senior Advisor, Immediate Office (IO)*  
 OLDP | OPQ | CDER | FDA

11:25 – 12:10

**Lifecycle Management of Approved Drug Product: FDA Perspective**

The real life of a drug product starts after approval by a regulatory body. This talk will focus on the post-marketing changes that can happen after the approval of a new drug by the FDA. The discussion will involve the changes a drug product can undergo during its life and how the regulations and guidances are applied to help make those changes while maintaining the standards of Quality.

**Ramesh Raghavachari, PhD**  
*Chief, Branch I*  
 Division of Post Marketing Activities I (DPMAI)  
 OLDP | OPQ | CDER

12:10 – 12:25

**Questions & Answer Panel**

**Frank O. Holcombe, Ramesh Raghavachari**

12:25 – 12:30

**Day Two Closing**

**SBIA Staff**

**12:30: DAY TWO ADJOURN**

**DAY THREE: Thursday, August 18, 2022**

8:30 – 8:40

**SBIA Welcome and Administrative Overview****Forest "Ray" Ford, PharmD, BCPS***Captain, USPHS*  
DDI | OCOMM | CDER**Renu Lal, PharmD***Lieutenant Commander, USPHS*  
DDI | OCOMM | CDER**Nora Lim, PharmD, BCPS***Lieutenant, USPHS, Pharmacist*  
SBIA | DDI | OCOMM | CDER

8:40 – 9:10

**Identification and Control of Harmful Impurities in Pharmaceutical Products: Nitrosamine as an Example**

The talk will provide an introduction to the impurities in pharmaceutical products in a context of a 'cohort of concern' impurities with nitrosamines as an example. The attendees will get information about the USP's response to the nitrosamine concern including tools and solutions provided to the industry in terms of documentary standards (GC<1469>) and reference standards (existing and proposed). A summary of current nitrosamine challenges and USP's plans will provide an insight into USP's strategy to address the issue.

**Mrunal A. Jaywant, PhD, PGDMM***Senior Director, R&D*  
*USP Nitrosamines Lead*  
Unites States Pharmacopoeia (USP)  
India

9:10 – 9:50

**Control of Nitrosamine Impurities in Human Drugs**

Nitrosamine compounds are potent genotoxic agents and are referred to as "cohort of concern" compounds in the ICH guidance for industry M7(R1). This presentation describes conditions that may introduce nitrosamine impurities in pharmaceutical active ingredients and drug products. This talk provides recommendations manufacturers can take to detect and prevent objectionable levels of nitrosamine impurities in pharmaceutical products.

**Andre Raw, PhD***Associate Director for Science and Communication*  
Office of Lifecycle Drug Products (OLDP)  
Office of Pharmaceutical Quality (OPQ) | CDER

9:50 – 10:05

**Questions & Answer Panel****Mrunal A. Jaywant, Andre Raw**

10:05 – 10:35

**Introduction to Bioequivalence for Generic Drug Products**

This session will provide an overview of bioequivalence (BE) for generic drug products, various types of BE studies that may be submitted in support of Abbreviated New Drug Applications (ANDAs), general considerations to conduct the BE studies with pharmacokinetic endpoints and a list of bio-waiver drug products. In addition, this session will provide related regulations and resources for development of generic drug products (e.g., product-specific guidance (PSG), the Agency's approved drug products with therapeutic equivalence evaluations (Orange Book) and Guidance Documents for Industry).

**Ja Hye Myung, PhD, MS, BPharm***Pharmacologist*  
Division of Bioequivalence III (DBIII)  
Office of Bioequivalence (OB)  
Office of Generic Drugs (OGD) | CDER | FDA

**DAY THREE: Thursday, August 18, 2022**

10:35 – 10:50

**Bioequivalence Studies for Generic Drug Development**

The presentation is intended to provide a broad overview of the scientific and regulatory principles governing bioequivalence with an emphasis on Abbreviated New Drug Applications (ANDAs). Specifically, the seminar will describe key bioequivalence concepts and regulation as well as highlight some bioequivalence-related general and product specific guidances. Moreover, the speaker will discuss bioequivalence information that is generally assessed in support of ANDAs. Finally, the presentation will share some common deficiencies associated with bioequivalence studies.

**Rong Wang, PharmD, PhD**

Acting Division Associate Director  
Division of Bioequivalence I (DBI)  
OB | OGD | CDER | FDA

10:50 – 11:05

**Questions & Answer Panel****Ja Hye Myung, Rong Wang**

11:05 – 11:35

**Essential Elements of Biopharmaceutics Classification System (BCS III)-Based Waiver Request**

This presentation will discuss essential elements of BCS Class 3-based biowaiver requests to be assessed for generic drug development and approval. The talk will share some internal research results on solubility and dissolution studies of potential BCS 3 drug products. In addition, the presentation will discuss the assessment criteria of BCS 3-based waiver request, especially on the formulation similarity evaluation.

**Yi Zhang, PhD**

*Commander, USPHS  
Senior Advisor*

Division of Therapeutic Performance II (DTPII)  
Office of Research and Standards (ORS)  
OGD | CDER | FDA

11:35 – 11:50

**BCS Methodology: Solubility, Permeability & Dissolution**

FDA's guidance on biopharmaceutics classification system (BCS)-based biowaivers provides an outline as to how to conduct experiments to classify a drug substance (solubility, permeability) and drug product (dissolution). Equilibrium solubility is determined over the pH range of 1.2 to 6.8 with the drug classified by its lowest measured solubility in comparison to its highest therapeutic dose. A drug's permeability is determined in human pharmacokinetic studies or with a validated and standardized in vitro Caco-2 cell assay. Dissolution experiments are conducted in buffers at pH 1.2, 4.5, and 6.8 under specific conditions.

**Donna A. Volpe, PhD***Research Chemist*

Division of Applied Regulatory Science  
Office of Clinical Pharmacology (OCP)  
CDER | FDA

11:50 – 12:05

**Biowaivers****Haritha Mandula***Lead Pharmacologist*

Division of Biopharmaceutics  
OND | CDER | FDA



## DAY THREE: Thursday, August 18, 2022

12:05 – 12:20

### Questions & Answer Panel

**Yi Zhang, Donna A. Volpe, Haritha Mandula**

12:20 – 12:30

### Conference Closing

**Jude Nwokike**  
*Vice President & Director*  
Promoting the Quality of Medicines Plus (PQM+) Program  
U.S. Pharmacopeial Convention

**12:30: CONFERENCE ADJOURN**