

## PQRI-FDA Workshop on Process Drift

### Agenda for Workshop

Wednesday, December 1, 2010

**8:30 am -12:00 pm**  
**Plenary Session**

8:30 am  
Workshop Introduction  
Moderators  
Avi Yacobi, Ph.D.  
Taro Pharmaceuticals

Richard L. Friedman  
U.S. Food and Drug Administration

8:45 am  
Pharmaceutical Quality- How We Build and Maintain it Under a Robust Quality System  
Juan JA Andres  
Novartis International AG

9:30 am  
Ramifications of Process Drift  
Zena G. Kaufman  
Abbott Laboratories

10:00 am  
Coffee Break

10:30 am  
Tools for Recognizing and Quantifying Process Drift - Statistical Process Control  
J. Scott Tarpley, M.S.  
GE Intelligent Platforms, Inc.

11:00 am  
Control, Compliance, and Continuous Improvement  
Fionnuala M. Walsh, Ph.D.  
Eli Lilly and Company

11:30 am  
Effect of Process Drift on Quality of Drug Products  
Richard L. Friedman  
U.S. Food and Drug Administration

12:00 pm  
Lunch

**1:00 pm – 5:15 pm**  
**Process Drift and its Resolution in the Manufacturing of Active Pharmaceutical Ingredients**

1:00 pm  
Moderators:  
Ira Berry, MBA/MA  
International Regulatory Business Consultants, L.L.C.

Carmelo Rosa  
U.S. Food and Drug Administration

1:15 pm  
Process Drift in the Manufacturing of API's  
Nandkumar K. Chodankar, Ph.D.  
Excel Industries Limited

1:45 pm  
Product Monitoring and Lifecycle Management of Biologic Products Licensed via QbD  
Ron Taticek  
Genentech

2:15 pm  
Detecting, Diagnosing, and Controlling Process Variations: A Review of Modeling Options  
Venkat Venkatasubramanian  
Purdue University

2:45 pm  
Coffee Break

3:15 pm  
Case Studies on Process Drift and Resolution  
Denise Rivkees, R.Ph., Ph.D.  
Pfizer

3:45 pm  
Regulatory Implications of Process Drift  
David J. Jaworski  
U.S. Food and Drug Administration

4:30 pm  
Panel Discussion

5:00 pm  
Closing Remarks  
Avi Yacobi, Ph.D.  
Taro Pharmaceuticals

6:00 pm – 7:00 pm  
Reception

**Thursday, December 2, 2010**

**8:30 am – 12:30 pm  
Process Drift and its Resolution in the Manufacturing of Drug Products**

8:30 am  
Moderators  
Mario L. Rocci, Jr., Ph.D.  
ICON Development Solutions

Christine M.V. Moore, Ph.D.  
U.S. Food and Drug Administration

8:40 am  
Connection Between Quality, Safety, and Efficacy  
Roger L. Williams, M.D.  
U.S. Pharmacopeia

9:10 am  
Tools for Monitoring and Controlling Uniformity of Solid Dosage Forms  
Martin Warman  
Vertex Pharmaceuticals

9:35 am  
Transdermals  
Lino A. Tavares, B.S.  
Purdue Pharma, L.P.

10:00 am  
Coffee Break

10:30 am  
MDIs and DPIs  
Edward Warner, M.Sc.  
Merck

10:55 am

Topicals (Ointments, Suspensions, Creams)

Clarence T. Ueda, Pharm.D., Ph.D.

University of Nebraska Medical Center

11:20 am

Process Controls in Aseptic Manufacturing: An Overview

Joerg Zimmermann

Vetter Pharma Fertigung GmbH & Co. KG

11:45 am

Process Drift Affects Specification and Shelf-life

Inna Ben-Anat, M.Sc.

Teva Pharmaceuticals USA

12:10 pm

Panel Discussion

12:30 pm

Lunch

**1:30 pm – 5:15 pm**

**Break Out Sessions**

**– to be repeated four times to allow participants to attend 4 out of 5 sessions**

1:30 pm – 2:15 pm

First Round of Breakouts

2:30 pm – 3:15 pm

Second Round of Breakouts

3:30 pm – 4:15 pm

Third Round of Breakouts

4:30 pm – 5:15 pm

Fourth Round of Breakouts

Breakout Session # 1: Definitions and Terms for Describing Process Variation and Process Drift

Moderators

Mario L. Rocci, Jr., Ph.D., ICON Development Solutions

Tara Goen, U.S. Food and Drug Administration, *Invited*

Breakout Session # 2: What are the Most Frequent Causes of Variation (e.g., manual vs. automation, equipment choices, raw materials) in Pharmaceutical Manufacturing?

Moderators:

Eric W. Richmond, Ph.D., Lachman Consultant Services, Inc.

Vibhakar J. Shah, Ph.D., U.S. Food and Drug Administration

Breakout Session # 3: Current Strategies for Monitoring and Detecting Process Variability

Moderators:

Sonja S. Sekulic, Ph.D., Pfizer

Sharmista Chatterjee, U.S. Food and Drug Administration

Breakout Session # 4: What Evolutions in Industry Management Approaches and the Regulatory Environment Could Promote More Proactive Process Improvement Throughout the Life-cycle?

Moderators:

Glenn A. VanBuskirk, Ph.D., Nonclinical Drug Development Consulting Services, LLC

Steven M. Wolfgang, Ph.D., U.S. Food and Drug Administration

Breakout Session # 5: Impact of Process Drift on Product Performance (Bioavailability, Safety, and Efficacy)

Moderators:

Vinod P. Shah, Ph.D., Pharmaceutical Consultant

Frank Holcombe, Jr., Ph.D., U.S. Food and Drug Administration

## **Friday, December 3, 2010**

**8:30 am – 12:30 pm**

### **Opportunities for Minimizing and Preventing Process Drift**

8:30 am

Moderator

Raj Uppoor, R.Ph., Ph.D.

U.S. Food and Drug Administration

**8:40 am – 10:00 am**

### **Breakout Session Summaries**

# 1: Definitions and Terms for Describing Process Variation and Process Drift

Mario L. Rocci, Jr., Ph.D., ICON Development Solutions

# 2: What are the Most Frequent Causes of Variation (e.g., manual vs. automation, equipment choices, raw materials) in Pharmaceutical Manufacturing?

Eric W. Richmond, Ph.D., Lachman Consultant Services, Inc.

# 3: Current Strategies for Monitoring and Detecting Process Variability

Sonja S. Sekulic, Ph.D., Pfizer

# 4: What Evolutions in Industry Management Approaches and the Regulatory Environment Could Promote More Proactive Process Improvement Throughout the Life-cycle?

Glenn A. VanBuskirk, Ph.D., Nonclinical Drug Development Consulting Services, LLC

# 5: Impact of Process Drift on Product Performance (Bioavailability, Safety, and Efficacy)

Vinod P. Shah, Ph.D., Pharmaceutical Consultant

10:00 am

Coffee Break

10:30 am

Managing Change in Manufacturing

Nigel Hamilton, B.Sc.

Sanofi-Aventis

11:00 am

Collaborations for Success

PQRI: An Industry, Regulatory, and Academic Consortium

Anthony J. DeStefano, Ph.D.

Chair, PQRI Steering Committee

11:30 am

Process Validation for Life-cycle Management of Product Quality and Product Performance

Grace E. McNally

U.S. Food and Drug Administration

12:00 pm

Panel Discussion

12:30 pm

Closing Comments

Richard L. Friedman

U.S. Food and Drug Administration