



**FOOD AND DRUG ADMINISTRATION (FDA)**  
Center for Drug Evaluation and Research (CDER)

*Advisory Committee for Pharmaceutical Science and Clinical Pharmacology (ACPS-CP)*

Advisors & Consultants Staff Conference Room, Rm 1066  
5630 Fishers Lane, Rockville, MD 20857

JULY 22-23, 2008

**AGENDA**

---

**Day 1: Tuesday, July 22, 2008**

8:30 a.m. Call to Order and Opening Remarks

**Ken R. Morris, Ph.D.**

Chair

Advisory Committee for Pharmaceutical Science and  
Clinical Pharmacology (ACPS-CP)

Introduction of Committee

Conflict of Interest Statement

**Diem-Kieu H. Ngo, Pharm.D., BCPS**

Acting Designated Federal Official

8:45 a.m. Welcome, Introductory Remarks,  
and OPS Update

**Helen Winkle**

Director, Office of Pharmaceutical Science (OPS)  
Center for Drug Evaluation and Research (CDER),  
FDA

***Topic 1: Nanotechnology in Drug Manufacturing, Drug Delivery, and Drug Products***

Topic Introduction

**Keith Webber, Ph.D.**

Deputy Director, OPS, CDER, FDA

CYT-6091 (Aurimune™): A Model  
Nanomedicine

**Lawrence Tamarkin, Ph.D.**

President & CEO  
CytImmune Sciences, Inc.

10:15 a.m. **BREAK**

10:30 a.m. Nanoparticle Technology: Leveraging  
Rapid Dissolution to Improve Performance  
of Poorly Water-soluble Drugs

**Stephen B. Ruddy, Ph.D.**

Senior Director, Pharmaceutical Development  
Elan NanoSystems

Nanotools for Toxicity Assessment of  
Nanomedicines

**Darin Y. Furgeson, Ph.D.**

Assistant Professor of Pharmaceutical Sciences  
and Biomedical Engineering, Biomedical  
Engineering Center for Translational Research  
University of Wisconsin-Madison

***Committee discussions and recommendations***



**FOOD AND DRUG ADMINISTRATION (FDA)**  
Center for Drug Evaluation and Research (CDER)

*Advisory Committee for Pharmaceutical Science and Clinical Pharmacology (ACPS-CP)*

Advisors & Consultants Staff Conference Room, Rm 1066  
5630 Fishers Lane, Rockville, MD 20857

JULY 22-23, 2008

**AGENDA**  
*-CONTINUED-*

**Day 1: Tuesday, July 22, 2008, continued**

12:00 p.m. **LUNCH**

1:00 p.m. Open Public Hearing

2:00 p.m. **Topic 2: Lead in Pharmaceutical Products**

Historical Background and Introduction

**Norman Schmuff, Ph.D.**

Branch Chief, Division of Pre-Marketing  
Assessment II, Office of New Drug Quality  
Assessment (ONDQA), OPS, CDER, FDA

Effects of Lead Exposure in Adults,  
Children, and Special Populations

**Susan Cummins, M.D., M.Ph.**

Senior Science Advisor  
Pediatric and Maternal Health Staff (PMHS)  
Office of New Drugs (OND), CDER, FDA

FDA Drug Product Survey

**John Kaufman, Ph.D.**

R&D Team Leader, Division of Pharmaceutical  
Analysis (DPA), Office of Testing and Research  
(OTR), OPS, CDER, FDA

3:15 p.m. **BREAK**

3:30 pm USP Controls on Lead in Pharmaceutical  
Products

**Darrell Abernethy, M.D., Ph.D.**

Chief Science Officer  
United States Pharmacopeia

CFSAN's Approach to Setting Lead Limits

**Michael E. Kashtock, Ph.D.**

Supervisory Consumer Safety Officer  
Division of Plant and Dairy Food Safety,  
Office of Food Safety, Center for Food Safety and  
Applied Nutrition (CFSAN), FDA

Topic Summary and Questions

**Norman Schmuff, Ph.D.**

***Committee discussions and recommendations***

5:00 p.m. **ADJOURNMENT**



**FOOD AND DRUG ADMINISTRATION (FDA)**  
Center for Drug Evaluation and Research (CDER)

*Advisory Committee for Pharmaceutical Science and Clinical Pharmacology (ACPS-CP)*

Advisors & Consultants Staff Conference Room, Rm 1066  
5630 Fishers Lane, Rockville, MD 20857

JULY 22-23, 2008

**AGENDA**  
*-CONTINUED-*

**Day 2: Wednesday, July 23, 2008**

- 8:30 a.m. Call to Order **Ken R. Morris, Ph.D.**  
Chair, ACPS-CP
- Conflict of Interest Statement **Diem-Kieu H. Ngo, Pharm.D., BCPS**  
Acting Designated Federal Official
- 8:45 a.m. ***Topic 1: Bioequivalence Methods for Locally Acting Drugs that Treat Gastrointestinal (GI) Conditions***
- Bioequivalence of Locally Acting GI Drugs: An Overview **Lawrence Yu, Ph.D.**  
Director for Science, Office of Generic Drugs (OGD), OPS, CDER, FDA
- Why is the *In Vitro* Method Better than the *In Vivo* Method? **James Polli, Ph.D.**  
University of Maryland School of Pharmacy  
Department of Pharmaceutical Sciences
- 10:00 a.m. **BREAK**
- 10:15 a.m. OGD Recommendations for Poorly Soluble Locally Acting GI Drugs **Robert Lionberger, Ph.D.**  
Chemical Engineer  
OGD, OS, CDER, FDA
- Committee discussions and recommendations***
- 12:00 p.m. **LUNCH**
- 1:00 p.m. Open Public Hearing
- 2:00 p.m. ***Topic 2: Drug Classification of Orally Disintegrating Tablets (ODT)***
- Topic Introduction **Frank Holcombe, Ph.D.**  
Associate Director for Chemistry  
OGD, OPS, CDER, FDA
- Committee discussions and recommendations***



**FOOD AND DRUG ADMINISTRATION (FDA)**  
Center for Drug Evaluation and Research (CDER)

*Advisory Committee for Pharmaceutical Science and Clinical Pharmacology (ACPS-CP)*

Advisors & Consultants Staff Conference Room, Rm 1066  
5630 Fishers Lane, Rockville, MD 20857

JULY 22-23, 2008

**AGENDA**  
**-CONTINUED-**

3:00 p.m. **BREAK**

3:15 p.m. **Topic 3: *Use of Inhaled Corticosteroid Dose Response as a Means to Establish Bioequivalence of Inhalation Drug Products***

Bioequivalence of Inhalation Drug  
Products: Challenges and Opportunities

**Lawrence Yu, Ph.D.**

Asthma Stability Model for Inhaled  
Corticosteroid Dose-response

**Wallace P. Adams, Ph.D.**

Leading Pharmacologist, OGD Science Staff  
OGD, OPS, CDER, FDA

Exhaled Nitric Oxide Study Model for  
Inhaled Corticosteroid Dose-response

**Badrul A. Chowdhury, M.D., Ph.D.**

Director, Division of Pulmonary and Allergy Drug  
Products (DPAP), Office of Drug Evaluation II  
(ODE II), OND, CDER, FDA

4:45 p.m. **Conclusion and Summary Remarks**

**Helen Winkle**

5:00 p.m. **ADJOURNMENT**