



Drug-Induced Liver Injury: Standardization of Nomenclature and Causality Assessment

National Institutes of Health Workshop

December 1 - 2, 2008

Lister Hill Auditorium
NIH Campus, Bethesda, Maryland

AGENDA

Day 1—Monday, December 1, 2008 — Lister Hill Auditorium

7:30 a.m. **Registration and Continental Breakfast**

8:00 a.m. **Welcome and Aims**

Jay Hoofnagle, M.D., National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), Bethesda, MD

Donald Lindberg, M.D., National Library of Medicine (NLM), Bethesda, MD

Session 1: Drug-Induced Liver Injury Overview

Moderators: *Jay Hoofnagle, M.D.*, NIDDK, and *Robert Fontana, M.D.*, University of Michigan School of Medicine, Ann Arbor, MI

8:10 a.m. **Introduction to Issues of Nomenclature and Causality**

Leonard Seeff, M.D., NIDDK, Bethesda, MD

8:20 a.m. **Introduction to Drug-Induced Liver Disease**

Neil Kaplowitz, M.D., University of Southern California Keck School of Medicine, Los Angeles, CA

8:50 a.m. **Categorization of Risk for Drug-Induced Hepatotoxicity**

Mark Avigan, M.D., U.S. Food and Drug Administration, Silver Spring, MD

9:10 a.m. **DILIN Network Study in the United States**

Jose Serrano, M.D., Ph.D., NIDDK, Bethesda, MD

9:30 a.m. **Discussion**

10:00 a.m. **Break**

Day 1—Monday, December 1, 2008 (Continued)

Session 2: European Hepatotoxicity Networks

Moderators: *John Senior, M.D.*, Center for Drug Evaluation and Research/U.S. Food and Drug Administration, Rockville, MD, and *Maribel Lucena, M.D.*, Servicio de Farmacologia Clinica, Malaga, Spain

- 10:30 a.m. **Spain**
Raúl Andrade, M.D., Ph.D., University Hospital of Malaga, Malaga, Spain
- 10:50 a.m. **United Kingdom**
Christopher Day, M.D., Ph.D., University of Newcastle Medical School, Newcastle, United Kingdom
- 11:10 a.m. **Sweden**
Einar Björnsson, M.D., Ph.D., Sahlgrenska University Hospital, Gothenburg, Sweden
- 11:30 a.m. **France**
Dominique Larrey, M.D., Ph.D., Hospital St. Eloi Montpellier School of Medicine, Montpellier, France
- 11:50 a.m. **Discussion**
- 12:20 p.m. **Lunch Buffet** (*for those who preordered lunch*) **and Poster Viewing**

Session 3: Asian Hepatotoxicity Networks

Moderators: *Christopher Day, M.D., Ph.D.*, University of Newcastle Medical School, United Kingdom, and *Herbert Bonkovsky, M.D.*, Carolinas Health Care System, Charlotte, NC

- 1:20 p.m. **Japan**
Hajime Takikawa, M.D., Ph.D., Teikyo University School of Medicine, Tokyo, Japan
- 1:40 p.m. **Singapore**
Seng Gee Lim, M.D., National University of Singapore, Singapore
- 2:00 p.m. **Korea**
Byung Min Ahn, M.D., Gumi CHA Hospital, South Korea
- 2:20 p.m. **Discussion**
- 2:40 p.m. **Break**

Day 1—Monday, December 1, 2008 (Continued)

Session 4: Issues Related to Causality Assessment

Moderators: *Raúl Andrade, M.D., Ph.D.*, University Hospital of Malaga, Spain, and *Paul Watkins, M.D.*, University of North Carolina at Chapel Hill, School of Medicine, Chapel Hill, NC

- 3:00 p.m. **RUCAM, Strengths and Weaknesses**
Maribel Lucena, M.D., Servicio de Farmacologia Clinica, Malaga, Spain
- 3:30 p.m. **The R-Ratio for Characterizing Liver Injury in DILI**
James Rochon, Ph.D., Duke Clinical Research Institute, Durham, NC
- 3:50 p.m. **DILIN Causality Assessment**
Don Rockey, M.D., University of Texas Southwestern Medical Center, Dallas, TX
- 4:20 p.m. **Assessment of Causality in Suspected DILI: Clinical Risk Factors**
Naga Chalasani, M.D., Indiana University School of Medicine, Indianapolis, IN
- 4:40 p.m. **Drug-Induced Liver Injury and Pre-existing Liver Disease**
Robert Fontana, M.D., University of Michigan School of Medicine, Ann Arbor, MI
- 5:00 p.m. **Discussion**
- 5:30 p.m. **Adjourn for the Day**

Day 2—Tuesday, December 2, 2008 — Lister Hill Auditorium

- 7:00 a.m. **Registration and Continental Breakfast**
- 8:00 a.m. **Welcome and Comments**
Robert Fontana, M.D., University of Michigan School of Medicine, Ann Arbor, MI

Session 5: Challenges in Causality Assessment

Moderators: *Don Rockey, M.D.*, University of Texas Southwestern Medical Center, and *James Lewis, M.D.*, Georgetown University, Washington, DC

- 8:10 a.m. **HIV and Drug-Induced Liver Injury**
Timothy Davern, M.D., University of California at San Francisco, San Francisco, CA
- 8:30 a.m. **Drug-Induced Liver Injury in Children**
William Balistreri, M.D., Children's Hospital Medical Center, Cincinnati, OH

Day 2—Tuesday, December 2, 2008 (Continued)

Session 5: Challenges in Causality Assessment

- 8:50 a.m. **DILI: Histopathologic Associations**
David Kleiner, M.D., Ph.D., National Cancer Institute, Bethesda, MD
- 9:10 a.m. **Biomarkers to Aid in the Diagnosis of DILI**
Paul Watkins, M.D., University of North Carolina School of Medicine, Chapel Hill, NC
- 9:30 a.m. **Discussion**
- 10:00 a.m. **Break**

Session 6: Definitions and Grading Severity in Drug-Induced Liver Injury

Moderators: *John McHutchison, M.D.*, Duke University Medical Center, Durham, NC, and *Neil Kaplowitz, M.D.*, University of Southern California Keck School of Medicine, Los Angeles, CA

- 10:30 a.m. **DILIN: Assessing Severity**
Paul Hayashi, M.D., University of North Carolina at Chapel Hill, Chapel Hill, NC
- 10:50 a.m. **Immunoallergic and Autoimmune Features of DILI**
Herbert Bonkovsky, M.D., Carolinas Health Care System, Charlotte, NC
- 11:10 a.m. **Chronicity in Drug-Induced Liver Injury**
Guruprasad Aithal, M.D., Ph.D., University Hospital, Nottingham, United Kingdom
- 11:30 a.m. **Discussion**
- 12:00 p.m. **Lunch Buffet (in foyer for those who pre-paid) and Poster Viewing**

Session 7: Research Collaborations and Future Directions

Moderators: *Leonard Seeff, M.D.*, NIDDK, Bethesda, MD, and *Jose Serrano, M.D., Ph.D.*, NIDDK, Bethesda, MD

- 1:00 p.m. **LiverTox: An Online Resource for Information on Drug-induced Liver Injury**
Jay Hoofnagle, M.D., NIDDK, Bethesda, MD
- 1:20 p.m. **LiverTox Website Demonstration**
James Knoben, Pharm.D., M.P.H., NLM, Bethesda, MD
- 1:40 p.m. **Minimal Elements for Diagnosis and Publication**
John McHutchison, M.D., Duke University Medical Center, Durham, NC

Day 2—Tuesday, December 2, 2008 (Continued)

Session 7: Research Collaborations and Future Directions

2:00 p.m. **Treatment Strategies for Drug-Induced Liver Injury**
William Lee, M.D., University of Texas Southwestern Medical Center,
Dallas, TX

2:20 p.m. **Discussion**

Session 8: Summary and Overview

2:50 p.m. **Future Collaborations**
Jay Hoofnagle, M.D., NIDDK, Bethesda, MD

3:20 p.m. **Adjourn the Workshop**