October 10 – 12, 2000 Sheraton Imperial Hotel and Convention Center Research Triangle Park, North Carolina



Organized by the
National Institute of Environmental Health Sciences, NIH
National Toxicology Program



Sponsored by the U.S. Environmental Protection Agency

and the

National Institute of Environmental Health Sciences, NIH
National Toxicology Program

Overview - The goals of this peer review are to review the scientific evidence related to the low-dose effects of endocrine disruptors and to consider their implications for the development, validation, and interpretation of test protocols for reproductive and developmental toxicity. For this meeting, "low-dose effects" refer to biological changes that occur at environmentally relevant exposure levels or at doses that are lower than those typically used in the U.S. EPA's standard toxicity testing paradigm. The intent is to examine data from major selected studies (excluding studies on dioxin and dioxin-like compounds) supporting the presence or absence of low-dose effects for humans. A main topic to be addressed is defining the shape of the dose-response curves for endocrine-active substances in the low-dose region. The analysis and evaluation will be accomplished during this three-day scientific peer review that includes plenary sessions and several subpanel meetings.

Endocrine Disruptors Low-Dose Peer Review - SubPanels

Bisphenol A

<u>Chair</u>: **George Stancel**, University of Texas at Houston <u>Rapporteur</u>: **Gail Prins**, University of Illinois at Chicago

Facilitator: Penelope Fenner-Crisp, U.S. EPA

Panelists: Ralph Cooper, U.S. EPA; Warren Foster, Health Canada; Jun Kanno, National

Institute of Health Sciences-Japan; John Faust, California-EPA

Other Environmental Estrogens and Estradiol

Chair: Michael Gallo, UMDNJ-Robert Wood Johnson Medical School

Rapporteur: Kenneth Reuhl, Rutgers University

Facilitator: Lynn Goldman, Johns Hopkins University School of Public Health

Panelists: Mari Golub, California-EPA; Claude Hughes, UCLA School of Medicine;

Richard Lyttle, Wyeth-Ayerst Research; Lynne McGrath, Schering-Plough Research Institute;

Patricia Whitten, Emory University

Androgens and Anti-Androgens

Chair: Shuk-Mei Ho, University of Massachusetts Medical School

<u>Rapporteur</u>: **Terry Brown**, Johns Hopkins University School of Public Health <u>Facilitator</u>: **Eisuke Murono**, National Institute for Occupational Safety and Health Panelists: **George Daston**, The Procter & Gamble Company; **Mitch Eddy**, NIEHS;

Lorenz Rhomberg, Gradient Corporation; Elizabeth Wilson, University of North Carolina at

Chapel Hill

Biological Factors and Study Design

Chair: John Moore, Sciences International, Inc.

<u>Rapporteur</u>: **Julian Leakey**, National Center for Toxicological Research Facilitator: **William Allaben**, National Center for Toxicological Research

<u>Panelists</u>: **Sue Barlow**, Consultant; **Paul Foster**, Chemical Industry Institute of Toxicology; **Robert Luebke**, U.S. EPA; **Robert Maronpot**, NIEHS; **Cory Teuscher**, University of Illinois

at Urbana-Champaign

¹Statistics and Dose-Response Modeling

Co-Chair (statistics): Joseph Haseman, NIEHS

<u>Panelists</u>: **John Bailer**, Miami University of Ohio; **Ralph Kodell**, National Center for Toxicological Research; **Richard Morris**, Analytical Sciences, Inc.; **Kenneth Portier**,

University of Florida

Co-Chair (modeling): Michael Kohn, NIEHS

<u>Panelists</u>: **Hugh Barton**, U.S. EPA; **Jim Cogliano**, U.S. EPA; **Rory Conolly**, Chemical Industry Institute of Toxicology; **Robert Delongchamp**, National Center for Toxicological

Research

¹ Members of the Statistics and Dose-Response Modeling Subpanel will participate in other subpanels during the peer review.

Continental breakfast is provided each day at 7:30 AM in the Foyer of Empire ABC. Attendees are responsible for lunch and dinner.

Tuesday, October 10, 2000

| 7:30 AM | Registration (Foyer, Empire | e A) |
|----------|--|--------------|
| 8:30 AM | Welcome (Empire ABC) |) |
| | Kenneth Olden, NIEHS and Penelope Fenner-Crisp, U.S. EPA | |
| | Background and Charge to Panel Ronald Melnick, NIEHS, Organizing Committee Chair | |
| | Review Process | |
| | George Lucier, NIEHS, Peer Review Chair | |
| 9:00 AM | Body of Knowledge Presentation and Discussion John O'Connor, DuPont | |
| 10:00 AM | Break | |
| 10:30 AM | Body of Knowledge Presentation and Discussion <i>Frederick vom Saal, University of Missouri</i> | |
| 11:30 AM | Body of Knowledge Presentation and Discussion | |
| | John Ashby, Zeneca, United Kingdom | |
| 12:30 PM | Lunch | |
| 1:30 PM | Body of Knowledge Presentation and Discussion | |
| | Barry Delclos, National Center for Toxicological Research | |
| 2:30 PM | Summary of Other Bodies of Knowledge Studies | |
| | Jim Kariya, U.S. EPA | |
| | Principal Investigators: | |
| | Nira Ben-Jonathan, University of Cincinnati | |
| | Ibrahim Chahoud, Freie Universitat Berlin | |
| | Robert Chapin, DuPont Makoto Ema, National Institute of Health Science-Japan | |
| | Earl Gray, U.S. EPA | |
| | Ping Lee, Medical College of Wisconsin | |
| | Retha Newbold, NIEHS | |
| | Jimmy Spearow, University of California at Davis | |
| | Rochelle Tyl, Research Triangle Institute | |
| | John Waechter, Dow Chemical Company | |
| | Frank Welsch, Chemical Industry Institute of Toxicology | |
| 3:30 PM | Break | |
| 3:45 PM | Summary of Other Bodies of Knowledge (continued) | |
| 4:30 PM | Report from the Statistics and Dose-Response Modeling Subpanel - Statistical Evaluations | - |
| | Joseph Haseman, NIEHS, Subpanel Co-Chair | |
| 5:00 PM | Report from the Statistics and Dose-Response Modeling Subpanel - Theoretical Modeling | |
| | Michael Kohn, NIEHS, Subpanel Co-Chair | |
| 5:20 PM | Dinner | |
| 6:50 PM | Public Comments | |
| | Moderator - Lynn Goldman, Johns Hopkins University | |
| | School of Public Health | |

8:00 PM Subpanels: Initial Meeting

1. Bisphenol A (Bull Durham Room)

2. Other Environmental Estrogens and Estradiol
 3. Androgens and Anti-Androgens
 4. Biological Factors and Study Design
 (Royal A)
 (Crown B)
 (Royal B)

Wednesday, October 11, 2000

8:30 AM - 5:00 PM Subpanel Meetings

Bisphenol A (Empire C)
 Other Environmental Estrogens and Estradiol (Empire D)
 Androgens and Anti-Androgens (Empire A)
 Biological Factors and Study Design (Empire E)

 10:00 AM
 Break

 12:00 PM
 Lunch

 2:30 PM
 Break

Thursday, October 12, 2000

8:30 AM Subpanel Meetings

Bisphenol A (Imperial I)
 Other Environmental Estrogens and Estradiol (Imperial II)
 Androgens and Anti-Androgens (Imperial VI)
 Biological Factors and Study Design (Imperial VII)

10:00 AM Break

10:30 AM Presentation and Discussion of Subpanel Reports (Empire DE)

Moderators - George Lucier, NIEHS and Lynn Goldman, Johns Hopkins University

School of Public Health

12:00 PM Lunch

1:00 PM Presentation and Discussion of Subpanel Reports (continued)

2:30 PM Break

3:00 PM Presentation and Discussion of Subpanel Reports (continued)

5:00 PM Closing Remarks

Penelope Fenner-Crisp, U.S. EPA Christopher Portier, NIEHS

Scientific Organizing Committee

William Allaben, NCTR

Christopher De Rosa, ATSDR

Penelope Fenner-Crisp, U.S. EPA

Lynn Goldman, Johns Hopkins University School of Public Health

Sandra Inkster, U.S. Consumer Product Safety Commission

Robert Kavlock, U.S. EPA

George Lucier, NIEHS

Ronald Melnick, NIEHS

Eisuke Murono, NIOSH

Mary Wolfe, NIEHS

Jim Kariya, U.S. EPA

NIEHS Conference Support Staff

Roxanne Hall (Lead Coordinator)

Angie Sanders

Alma Britton

