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

NTP NIEHS

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.

Bisphenol A

Chair: **George Stancel**, University of Texas at Houston
Rapporteur: **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
Rapporteur: **Terry Brown**, Johns Hopkins University School of Public Health
Facilitator: **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.
Rapporteur: **Julian Leakey**, National Center for Toxicological Research
Facilitator: **William Allaben**, National Center for Toxicological Research
Panelists: **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

[1]Statistics and Dose-Response Modeling

Co-Chair (statistics): **Joseph Haseman**, NIEHS
Panelists: **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
Panelists: **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.

AGENDA

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 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** *Frederick vom Saal, University of Missouri*	
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*	

AGENDA - ***continued***

8:00 PM	**Subpanels: Initial Meeting**	
	1. Bisphenol A	**(Bull Durham Room)**
	2. Other Environmental Estrogens and Estradiol	**(Royal A)**
	3. Androgens and Anti-Androgens	**(Crown B)**
	4. Biological Factors and Study Design	**(Royal B)**

Wednesday, October 11, 2000

8:30 AM - 5:00 PM	**Subpanel Meetings**	
	1. Bisphenol A	**(Empire C)**
	2. Other Environmental Estrogens and Estradiol	**(Empire D)**
	3. Androgens and Anti-Androgens	**(Empire A)**
	4. 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**	
	1. Bisphenol A	**(Imperial I)**
	2. Other Environmental Estrogens and Estradiol	**(Imperial II)**
	3. Androgens and Anti-Androgens	**(Imperial VI)**
	4. Biological Factors and Study Design	**(Imperial VII)**
10:00 AM	**Break**	
10:30 AM	**Presentation and Discussion of Subpanel Reports** *Moderators - George Lucier, NIEHS and* *Lynn Goldman, Johns Hopkins University* *School of Public Health*	**(Empire DE)**
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
Jim Kariya, U.S. EPA
Robert Kavlock, U.S. EPA
George Lucier, NIEHS
Ronald Melnick, NIEHS
Eisuke Murono, NIOSH
Mary Wolfe, NIEHS

NIEHS Conference Support Staff

Roxanne Hall (Lead Coordinator) Angie Sanders Alma Britton