

7:00 AM–7:45 AM

CONTINUING EDUCATION SUNRISE MINI-COURSE

1. Fundamentals of Nanotechnology: Chemistry, Exposure, Health/Environmental Assessments and Societal Impacts (p39)

8:15 AM–12:00 NOON

CONTINUING EDUCATION MORNING COURSES

2. Dose Considerations for *In Vitro* Studies of Air Pollutant Toxicity (p39)
3. Developmental Toxicology Studies: Design, Interpretation, and Risk Assessment (p40)
4. Clinical Pathology—The Granddaddy of Biomarkers (p40)
5. Immunology for Toxicologists (p41)
6. Evaluation of Cardiac Drug Toxicity in Pharmaceutical Discovery and Development (p41)
7. International Harmonization of Technical Requirements for Conducting Non-Clinical Safety Studies of Human Pharmaceuticals: Guidelines, Case Studies, and Challenges (p42)

1:15 PM–5:00 PM

CONTINUING EDUCATION AFTERNOON COURSES

8. Male Reproductive Hazard Identification and Risk Assessment in Pharmaceutical Development (What Do You Do Now That You Have a Signal?) (p42)
9. Development and Interpretation of Toxicokinetic Data for Risk and Safety Assessment (p43)
10. Phototoxicity: Current Concepts, Experimental Designs, and Regulatory Expectations (p43)
11. Something Old, Something New; Traditional and Novel Biomarkers of Renal Injury (p44)
12. Evaluation of Cardiac Drug Toxicity in Pharmaceutical Discovery and Development (p44)
13. International Harmonization of Technical Requirements for Conducting Non-Clinical Safety Studies of Human Pharmaceuticals: Guidelines, Case Studies, and Challenges (p45)

Monday, March 7

8:30 AM–9:15 AM

PLENARY LECTURE

Science, Policy, and Regulation at the White House Office of Information and Regulatory Affairs
Lecture: Dr. John D. Graham, Office of Management and Budget (OIRA) (p49)

9:30 AM–12:00 NOON

SYMPOSIA

The Future of Molecular Genetic Therapeutics (p49)
Inhalation Exposure and Systemic Immunotoxicity: Mechanisms Linking the Lung and Immune System (p50)

WORKSHOPS

The Development and Application of Biomarkers of Toxicity (p50)
Dose-Additivity of Mixtures: Where Are We Going with the Science? (p51)
Role of Nutrigenomics in Safety Assessment of Functional Foods (p52)

PLATFORM SESSIONS

Nano Particles: General (p52)
Neurotoxicity: Pharmacological and Environmental Interactions (p53)
Receptors: PPAR (p53)

9:30 AM–12:30 PM

POSTER SESSIONS

Arsenic and Uranium Toxicology (p59)
Children's Health and Juvenile Animal Toxicology (p67)
Developmental Toxicity Testing (p68)
Education and Public Outreach (p67)
Gene Expression I (p57)
Immunotoxicology—Methods and Safety Evaluation (p61)
Liver I (p54)
Methods and Devices (p63)
Methyl Iodide Risk Assessment (p65)
Oxidative Stress I (p64)
Receptor: Ah Receptor II (p56)
Regulatory/Policy (p66)
Signal Transduction: Kinases (p62)

12:15 PM–1:15 PM

MRC LECTURE

Novel Uncompetitive Antagonists Protect Neurons from Excitotoxic, Oxidative, and Nitrosative Stress
Lecture: Stuart A. Lipton, MD, PhD, Professor, Burnham/Salk/Scripps Research Institutes and UC San Diego (p69)

ROUNDTABLE

Electrocardiography Safety Evaluation Studies—New Techniques and Approaches (p69)

1:30 PM–4:30 PM

SYMPOSIA

Dietary Acrylamide: New or Ancient Risk? (p70)
Environmental Factors Affecting Breast Cancer Susceptibility (p71)
The Multi-Site Ambient Particle Study (MAPS): An Integrated Approach to Studying Health Effects of PM Components (p72)

1:30 PM–4:30 PM

INNOVATIONS IN TOXICOLOGICAL SCIENCES

Alternative RNA Splicing: A Mechanism for Enhancing Diversity of Gene Expression (p70)

WORKSHOPS

High Throughput Screening Approaches in Genetic Toxicology (p73)
Environmental Terrorism: Development of Evacuation, Re-Entry and Re-Use Guidelines for Chemical, Biological and Radiological Agents (p72)

PLATFORM SESSIONS

Biotransformation/Cytochrome P450 (p74)
Computational Toxicology: Advances and Applications (p74)
Mechanisms of Immunotoxicity (p75)

POSTERS SESSIONS

Biomarkers (p84)
Exposure Assessment/Epidemiology (p78)
Gene Expression II (p88)
Male Reproductive (p87)
Neurotoxicity of Metals: Dosimetry and Effects (p91)
Neurotoxicity of Metals: Mechanisms (p92)
Pharmaceuticals: General (p82)
Receptor: PPAR (p90)
Respiratory Tract I—Pulmonary, Cardiovascular, and Immune Effects of PM (p80)
Risk Assessment I (p76)
Safety Evaluation: Evaluation of Methods *In Vitro/In Vivo* (p83)

4:30 PM–6:00 PM

SUNSET SESSIONS

Brominated Flame Retardants: New Findings (p94)
Developmental Toxicology Evaluations: Issues with Including Neurotoxicology and Immunotoxicology Assessments (p94)
Interviewing Skills for Graduate Students and Post-Docs (p95)
Teaching Undergraduate Toxicology in the 21st Century (p95)

7:15 AM–8:15 AM

TOWN HALL MEETING

NIH-Mandated Public Access to Sponsored Research Publications: Impact on *Toxicological Sciences*
Presiding: Lois Lehman-McKeeman, Editor of *Toxicological Sciences* and Richard Peterson, Chair of the Board of Publications (p97)

7:30 AM–8:15 AM

SUNRISE SESSION

Toxic Torts: Toxicologists in the Courtroom (p97)

8:30 AM–11:30 AM

SYMPOSIA

Emerging Issues in Risk Assessment and Risk Perception of Nanomaterials (p99)
Altered Iron Homeostasis (AIH) as a Basis for Pulmonary Immunotoxicologic Effects of Particulate Matter (p98)
Beyond Liver Toxicogenomics: Gene Expression Based Biomarkers in Non-Hepatic Tissues (p98)
Nucleocytoplasmic Trafficking in Mechanisms of Toxicity (p100)

WORKSHOPS

Mode of Action in Relevance of Rodent Liver Tumors to Human Cancer Risk (p101)
Current Status and Future Considerations for the Development and Validation of *In Vitro* Alternatives to the Draize Rabbit Eye Test (p100)
Neuroimaging Strategies for Application to Neurotoxicology and Risk Assessment (p102)

PLATFORM SESSIONS

Developmental Toxicology (p102)
Evaluating DNA Damage and Repair (p104)
Metals Toxicology (p103)

9:30 AM–12:30 PM

POSTER SESSIONS

Biotransformation/Cytochrome P450 I (p104)
Cardiovascular Disease II (p113)
Chemical & Biological Weapons (p108)
Developmental Neurotoxicity I (p122)
Hepatocarcinogenesis (p107)
Immunomodulation (p116)
PBPK Models (p114)
Reproduction and Development (p121)
Respiratory Tract II (p118)
Safety Evaluation: Biotechnology Products and Vaccines (p111)
Signal Transduction: Oxidant Stress (p112)

12:00 NOON–1:00 PM

DEBATE

SOT/EUROTOX Debate
Motion: Nanoparticles are a Major Threat to Human Health (p125)

1:30 PM–4:30 PM

SYMPOSIA

Organophosphates & Carbamates: Cholinergic vs. Noncholinergic Mechanisms (p126)
Proteomics and Antibody Microarrays: Applications in Toxicology (p127)
The AhR in Cell Growth and Death (p126)
Update on Mechanisms for Environmental Tobacco Smoke-Induced Health Effects (p128)

WORKSHOPS

Current and Future Science-Based Approaches to Drug Safety Evaluation: An Assessment of Potential Cancer Risk (p128)
Molecular Pathways to Toxicant-Induced Osteoporosis (p129)

PLATFORM SESSIONS

Liver (p130)
Nanoparticle Toxicity (p130)

POSTER SESSIONS

Biomonitoring (p146)
Disposition/Pharmacokinetics (p142)
Developmental Neurotoxicity II (p131)
Female Reproductive (p135)
Food Safety and Nutrition Toxicology II (p148)
Gene Regulation: Metals (p138)
Genetic Polymorphisms (p144)
Hypersensitivity II (p140)
Metals Toxicology (p136)
Nervous System: Methods and Functional Effects (p133)
Pharmaceuticals: Methods of Evaluation (p139)
Safety Evaluation: Non-Pharmaceutical (p139)
Statistical and Biological Models (p147)
Signal Transduction I (p142)

4:30 PM–6:00 PM

SUNSET SESSIONS

In Vitro Toxicity Testing of Air Pollutants: Pros and Cons (p150)
Toxicology Information and Data Update (p150)

Program

Wednesday, March 9

8:30 AM–11:30 AM

SYMPOSIA

Pesticide Neurotoxicity in Adults: Integrating Contributions from Epidemiology and Toxicology (p152)
Biomarkers of Oxidative Stress: New Prospects and Approaches (p151)
Genetic Susceptibility and Metal Toxicity (p152)

WORKSHOPS

Toxicological Research and Testing: Best Practices and Opportunities for Laboratory Animal Refinement, Reduction, and Replacement (p154)
Current Regulatory and Scientific Views Regarding Chemical Hazards to Children (p153)
Toxicologic Evaluation of Inhaled Vaccines (p153)

PLATFORM SESSIONS

Female and Male Reproductive Systems (p155)
Toxicogenomics: Role in Predictive Toxicology and Carcinogenicity (p156)
Receptors: Ah Receptor (p154)

9:30 AM–12:30 PM

POSTER SESSIONS

Biotransformation/Cytochrome P450 II (p168)
Cadmium and Metallothionein (p171)
Carcinogenicity Bioassays (p165)
Ecotoxicology (p170)
Food Safety and Nutrition Toxicology I (p157)
Modulation of Carcinogenesis (p164)
In Vitro (p172)
Natural Products (p158)
Nervous System: Mechanisms of Toxicity (p166)
Respiratory Tract III (p161)
Risk Assessment for Acute Inhalation Exposures (p163)
Safety Evaluation: Spontaneous Disease and Control Parameters (p174)

12:00 NOON–1:00 PM

ISSUES SESSION

Impact of the Reorganization of NIH on the Training of the Next Generation of Toxicologists (p175)

SPECIAL WORKSHOP

A Conversation with the Directors (p174)

ROUNDTABLE

Conducting a Comprehensive Toxicological and Safety Evaluation of Nanomaterials: Current Challenges and Data Needs (p175)

1:30 PM–4:30 PM

SYMPOSIA

The Ubiquitin-Proteasome System as a Biological Target in Toxic Responses and Disease (p176)
Developmental Toxicology of the Lung (p175)
What Makes Metals Neurotoxic in Neurodegenerative Disorders? (p177)
Role of Cell-Cell and Cell-Matrix Interactions in Regulation of Toxicant-Mediated Cell Death (p176)

WORKSHOPS

Dosimetry and Potential Impacts on Reproductive/Developmental Study Design and Interpretation for Risk or Safety Assessment (p178)
Skin Model Selection for Safety Assessment of Topical Drug Products: Regulatory and Industry Perspectives (p179)
Conflict of Interest (p178)

PLATFORM SESSIONS

Bioinformatics: Applications to Toxicology (p179)
Hypersensitivity I (p180)
Molecular Mechanisms of Oxidative Stress (p181)

POSTER SESSIONS

Cardiovascular Disease I—Gene Expression (p188)
Endocrine Disruptors (p181)
Immunotoxicology: *In Vitro*/Mechanisms (p191)
Liver II (p193)
Mechanisms of Carcinogenesis (p186)
Neurotoxicity, Pesticides (p196)
Oxidative Stress II (p190)
Pharmaceuticals—Metabolic/Cancer (p185)
Receptors: Steroid Receptors (p184)

4:30 PM–6:00 PM

SUNSET SESSIONS

Vinyl Chloride: Legacy and Lessons Learned (p199)
Advances in Material Safety Data Sheet Communication (p198)
The Safety Assessment of Nutritionally Improved Food and Feed Crops (p199)

Thursday, March 10

8:30 AM–11:30 AM

SYMPOSIA

Systems Biology: Approaches and Applications to Toxicology (p201)
Developmental Expression of Human Phase I and Phase II Toxicant Metabolizing Enzymes: Impact on Early Life Stage Susceptibility (p201)
Cross-Species Toxicology in the Age of Genomics (p200)

WORKSHOPS

Cellular/Molecular Mechanisms Involved in Environmental Chemicals—Induced Dopaminergic Neurotoxicity and the Consequences on Neurodegenerative Diseases (p202)
Safety Assessment of Biological Therapeutic Products—Defining the Scientific and Regulatory Issues (p203)

POSTER SESSIONS

Alternatives to Mammalian Models (p203)
Apoptosis (p222)
Dermal Toxicology (p215)
Developmental Toxicology Mechanisms (p219)
DNA and Protein Adducts (p221)
Genotoxicity (p217)
Pesticides (p213)
Persistent Organic Pollutants (p205)
Renal Toxicology (p211)
Risk Assessment II (p208)
Safety Evaluation: Safety Pharmacology (p205)

Special Events Sponsored by the Society of Toxicology

Saturday, March 5

2:00 PM–5:00 PM

Committee Chair Orientation (p47)

4:00 PM–7:00 PM

Registration Desk Open

5:00 PM–7:00 PM

Career Resource and Development Seminar: Career Move: An Amalgam of Opportunities and Uncertainties (p47)

6:15 PM–9:00 PM

Undergraduate Education Program for Minority Students (p47)

Sunday, March 6

8:00 AM–5:00 PM

Undergraduate Education Program (p47)

5:15 PM–6:30 PM

Awards Presentation (p48)

6:30 PM–7:30 PM

Welcoming Reception (p48)

7:00 PM–8:00 PM

25-Year Member (or More) Reception (p48)

7:30 PM–8:30 PM

Student/Post-Doctoral Fellow Mixer (p48)

Monday, March 7

7:30 AM–3:00 PM

Undergraduate Education Program for Minority Students (p49)

9:30 AM–11:30 AM

Poster Session for Visiting Students (p49)

4:30 PM–6:00 PM

Career Resource and Development Seminar: Consulting as a Career Choice (p96)

4:30 PM–6:00 PM

Specialty Section Presidents' and Officers' Meeting (p96)

6:00 PM–7:30 PM

Specialty Section Meetings: Ethical, Legal and Social Issues, Immunotoxicology, Mechanisms, Occupational and Public Health, Risk Assessment, Toxicologic and Exploratory Pathology

6:00 PM–6:30 PM

Undergraduate Toxicology Teaching Forum (p96)

Various Times

Regional Chapter Meetings/Receptions (Refer to *Events Calendar*)

Tuesday, March 8

7:00 AM–8:30 AM

Regional Chapter Presidents' and Officers's Meeting (p97)

7:15 AM–8:15 AM

Town Meeting: NIH-Mandated Public Access to Sponsored Research Publications: Impact on *Toxicological Sciences* Presiding: Lois Lehman-McKeeman, Editor of *Toxicological Sciences* and Richard Peterson, Chair of the Board of Publications (p97)

8:00 AM–4:30 PM

Paracelsus Goes to School Teacher Workshop (p97)

12:00 NOON–1:15 PM

In Vitro Toxicology Lecture for Students (p124)

1:30 PM–3:30 PM

Forum on Grantsmanship and Sources for Research Support (p125)

4:30 PM–6:00 PM

SOT Annual Business Meeting (*Members Only*) (p149)

5:30 PM–6:30 PM

Regional Chapter Contacts for K–12 Education Meeting (p151)

6:00 PM–7:30 PM

Specialty Section Meetings: Biological Modeling, Carcinogenesis, *In Vitro*, Inhalation, Metals, Neurotoxicology, Regulatory and Safety Evaluation

Various Times

Regional Chapter Meetings/Receptions (Refer to *Events Calendar*)

Wednesday, March 9

4:45 PM–5:30 PM

SOT Council Meeting with Students/Post-Doctoral Fellows (p200)

5:30 PM–6:00 PM

SOT Council Meeting with Student Advisory Committee

6:00 PM–7:30 PM

Specialty Section Meetings: Comparative and Veterinary, Dermal, Drug Discovery, Food Safety, Molecular Biology, Reproductive and Developmental, Women in Toxicology

Various Times

Regional Chapter Meetings/Receptions (Refer to *Events Calendar*)

Review