15th ANNUAL MEETING

PROGRAM

Society of Toxicology

MARCH 14 - 18, 1976
MEETING INFORMATION

REGISTRATION

Registrar
C. J. Terhaar

Pre-registration forms available from Secretary
Gale C. Boxill
Wyeth Labs Inc.
P.O. Box 861
Paoli, Pennsylvania 19301
(215) 644-8000

Registration Desk
Marriott Motor Hotel — 1st Floor Convention Lobby
Sunday, March 14, 1976 1:00 p.m. — 9:00 p.m.
Monday, March 15, 1976 8:00 a.m. — 4:00 p.m.
Tuesday, March 16, 1976 8:30 a.m. — 5:00 p.m.
Wednesday, March 17, 1976 8:30 a.m. — 5:00 p.m.

Pre-Registration Fees
Society of Toxicology Members .................. $30.00
Nonmembers ........................................ 40.00
Predoctoral Full-Time Students ............... 5.00

Registration Fees at Meeting
Society of Toxicology Members .................. $35.00
Nonmembers ........................................ 45.00
Predoctoral Full-Time Students ............... 10.00

Abstracts of Papers
Distributed without charge to all members of the Society of Toxicology and to all preregistrants in advance of the meeting. Included in the registration fee for those registering at the meeting. Additional copies of the abstracts available at the Registration Desk (First Floor Convention Lobby), price $2.

Locations (see centerfold map)
Hotel Registration — First Floor Convention Hall
Scientific Sessions — Grand Ball Rooms, North, Center, South, Tara Ballrooms, Suites 1, 2, 3.
Poster Sessions — Hall of Nations (Exhibition Hall)
Press Room — Stone Mountain Room
SCHEDULE OF MEETINGS

Formal Presentations — Grand Ball Rooms (North, Center, South), Tara Ballrooms 1, 2, 3
  Morning meetings 8:30 a.m.—11:50 a.m.
  Afternoon meetings 1:15 p.m.—4:15 p.m.

Poster Sessions — Hall of Nations (Exhibition Hall)
  Monday, March 15-17 8:45 a.m.—10:15 a.m.
  10:30 a.m.—12:00 noon
  1:30 p.m.—3:00 p.m.
  3:15 p.m.—4:45 p.m.
  Thursday, March 18 8:45 a.m.—10:15 a.m.

Symposia
  Monday, March 15, 9:00 a.m.—12:00 noon — Grand Ballroom (North and Center)
  "The Low-Dose Extrapolation Dilemma" (sponsored jointly by Society of Toxicology and Environmental Mutagen Society)
  Tuesday, March 16, 1:30 p.m.—4:30 p.m. — Grand Ballroom (North and Center)
  "Molecular Basis of Toxic Actions"

Workshop
  Wednesday, March 17, 1:00 p.m.—4:45 p.m. — Grand Ballroom North
  Behavioral Toxicology Workshop

Special Presentations
  Wednesday, March 17, at 4:45 — Grand Ballroom South
  NAS-NRC "Special Report on the Committee on Toxicology"
  Wednesday, March 17, at 4:15 — Tara Ballroom 1, 2, 3
  "Toxicology of Agricultural Chemicals Under Conditions of Use"

Annual Business Meeting
  Monday, March 15 at 4:40 p.m. — Grand Ballroom (North and Center)

Committee Meetings
  Whitehall and Thornwood Rooms
  Times will be posted
SOCIAL EVENTS

Banquet
Tuesday, March 16 at 7:30 p.m. — Grand Ballroom
Speaker:

Tickets available at Registration Desk

Mixer and Reception
Monday, March 15, 6:30 p.m.-8:00 p.m. —
Tara Ballroom
Cash Bar
Officers and members of Council will be available to meet and talk with colleagues attending the meeting.

Ladies Hospitality
Mornings at 9:00 for coffee — Plantation Room
Information on events and places of interest will be available at Atlanta Information and Fun Desk.

SPECIAL SERVICES

Placement Service — Room 118
Monday, Tuesday, Wednesday (March 15, 16, 17)
10:00 a.m.-12:00 noon and 2:00 p.m.-4:00 p.m.
Other hours by appointment
John G. Keller, Director

Press Facilities — Stone Mountain Room
Monday, Tuesday, Wednesday (March 15, 16, 17)
8:00 a.m.-5:00 p.m.
Thursday (March 18)
8:00 a.m.-12:00 noon
Members of the Press registered at the meeting may use the area to review meeting materials, prepare news items and meet with speakers.

Atlanta Information and Fun Desk
Furnished by TOURGALS, Inc.
First Floor Convention Lobby
OFFICERS (1975-1976)
Seymour L. Friess ...................... President
Robert A. Scala ...................... President-elect
Sheldon D. Murphy .................... Past President
Gale C. Boxill ....................... Secretary
Hans P. Drobeck ...................... Treasurer

COUNCIL
(Consists of officers and four elected members)
Julius M. Coon ....................... (1974-1976)
Perry J. Gehring ...................... (1975-1977)
Tom S. Miya ......................... (1975-1977)

COMMITTEES 1975-1976
Awards Committee
Sheldon D. Murphy, Chairman
Perry J. Gehring
Tom S. Miya

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Bernard A. Becker ................. (1974-1977), Chairman
Gabriel L. Plaa ................ Managing Editor
Seymour L. Friess ................ President
H. P. K. Agersborg .............. (1975-1978)
Robert A. Scala .................. Auditor

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Carl C. Smith .................... (1975-1977)

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Steven Carson ...................... (1975-1976)
Henry Sherman ..................... (1975-1977)
Robert J. Weir ................... (1975-1977)

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George Levinskis ............... (1975-1978)
Nominating Committee
Joseph F. Borzelleca, Chairman
James M. Fujimoto
Dorothy B. Hood
Rob S. McCutcheon
Alastair N. Worden

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C. J. Terhaar (Registrar)
Herman A. Birnbaum
Gale C. Boxill
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A. Wallace Hayes
K. S. Khera
Robert E. Menzer
Richard S. Waritz
Carrol S. Well

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Hanspeter R. Witschi, Co-chairman
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Paul O. Nees
Thomas E. Shellenberger
Robert G. Tardiff
Ralph C. Wands
Francis W. Weir

Advisory Committee on Acquisition of Toxicological Data on Pesticides for Food Additives
Unit, World Health Organization
Harold C. Grice, Chairman
Sheldon D. Murphy, Co-chairman
Milton Eisler
William Durham
W. J. Hayes
Frank C. Lu
Donald D. McCollister
Emil Poulsen

Committee for Legislative Assistance
Joseph F. Borzelleca, Chairman
Victor A. Drill
W. J. Hayes
Paul A. Mattis
Sheldon D. Murphy
Robert L. Roudabush

Committee on Ethics of Animal and Human Experimentation in Toxicology
Paul A. Mattis, Chairman
Frank G. Standaert, Co-chairman
James W. Newberne
John A. Zapp Jr.
PAST PRESIDENTS—SOCIETY OF TOXICOLOGY

Harold C. Hodge ........................................ 1961-1962
C. Boyd Shaffer ........................................ 1962-1963
Paul S. Larson ........................................ 1963-1964
Harry W. Hays ........................................ 1964-1965
Frederick Coulston .................................... 1965-1966
Verald K. Rowe ........................................ 1966-1967
John A. Zapp Jr. ....................................... 1967-1968
Carrol S. Weil ......................................... 1968-1969
Ted A. Loomis ........................................ 1969-1970
Robert L. Roudabush .................................. 1970-1971
Wayland J. Hayes Jr. .................................. 1971-1972
Victor A. Drill ......................................... 1972-1973
Joseph F. Borzelleca ................................... 1973-1974
Sheldon D. Murphy .................................... 1974-1975

SOCIOETY OF TOXICOLOGY AWARDS

Merit
1967 ...................................................... A. J. Lehman
1968 ...................................................... R. T. Williams
1969 ...................................................... H. C. Hodge
1970 ...................................................... D. D. Irish
1971 ...................................................... K. P. DuBois
1972 ...................................................... O. G. Fitzhugh
1973 ...................................................... H. E. Stokinger
1974 ...................................................... W. B. Deichmann
1975 ...................................................... F. Coulston

Achievement
1967 ...................................................... G. L. Piaa
1968 ...................................................... A. H. Cooney
1969 ...................................................... S. S. Epstein
1970 ...................................................... S. D. Murphy
1971 ...................................................... Y. Alarie
1972 ...................................................... R. L. Dixon
1973 ...................................................... M. F. Cranmer
1974 ...................................................... I. C. Munro

Frank R. Blood
1974 ...................................................... Y. Alarie
1975 ...................................................... G. J. Johnstone

Toxicology Education Award
1975 ...................................................... H. C. Hodge
APPOINTMENTS

Historian
Harry W. Hays

Placement
John G. Keller

Representative to Drug Research Board, NAS-NRC
Victor A. Drill

Representative to Science Advisory Committee
Registry of Tissue Reactions to Drugs, NAS-NRC
Harold M. Peck

Representative to Scientific Advisory Board,
National Center for Toxicological Research
Perry J. Gehring

Liaison with European Society of Toxicology
Leon Goldberg
Bo Holmstedt

Liaison with American Industrial Hygiene Association
Gale C. Boxill
Seymour L. Friess
Robert A. Scala

Liaison with Environmental Mutagens Society
John H. Weisburger

Liaison with National Society of Medical Research
Paul J. Garvin

Steering Committee for the First International
Congress on Toxicology
Sheldon D. Murphy, Chairman
Joseph F. Borzellino
Hans P. Drobeck
Seymour L. Friess
Robert A. Scala

Ad hoc Panel on Objectives and Program of the In vitro
Chemical Carcinogenesis Workshop
Robert J. Weir, Chairman
Joseph F. Borzellino
Cipriano Cueto Jr.
Leon Goldberg

Ad hoc Planning Committee for the Third Conference on
Cutaneous Toxicity and Safety (AMA-SOT)
Victor A. Drill, Chairman
Seymour L. Friess
Robert A. Scala

Liaison Member, Z-37 Committee
Harold N. MacFarland

FUTURE MEETINGS—SOCIETY OF TOXICOLOGY

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<td>Royal York</td>
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<td>17</td>
<td>1978</td>
<td>March 12-16</td>
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March 15, 1976

MONDAY MORNING — GRAND BALLROOM
SOUTH
"Metabolism I"
Chairman: S. Laham
Assisted by: G.P. Carlson and M. Anders


8:50 2. Comparative and Age Related Pharmacodynamics for Single and Multiple Doses of o-Phenylphenol. M.A. Rachovsky and F.W. Oehme, Kansas State University, Manhattan, Kansas.


9:30 4. Species Difference of Trinitroglycerin Metabolism In Vivo and In Vitro. C.C. Lee, R.D. Short and J.R. Hodgson, Pharmacology and Toxicology Research Institute, Kansas City, Missouri.

20-MINUTE BREAK


11:30 9. Metabolism and Fate of N-(4-chlorophenyl)-N-(2,6-difluorobenzoyl) urea in chickens and swine. J.C. Opdyke, R.W. Miller and R.E. Menzer, University of Maryland, College Park, Maryland.
March 15, 1976

MONDAY MORNING — TARA BALLROOM
SUITES 1, 2, 3,
"General Toxicity I"
Chairman: R. Fabian
Assisted by: O. Moreno and L.C.K. Wong


10:30 15. Applications of Selected Ion Monitoring Mass Spectrometry in Human Pharmacology and Toxicology. G.H. Draffan and D.S. Davies, Royal Postgraduate Medical School, Ducane Road. London, (Sponsor: D.G. Clark)


March 15, 1976

MONDAY MORNING — HALL OF NATIONS
EXHIBITION HALL

"Cardio Vascular Renal Toxicity Poster I"
Chairman: R. Drew

8:45 — 10:15


21. Use of Various Solvents to Study the Effects of Diazepam on Cardiac Rhythm. J.A. Quest, D.S. Pearl, and R.A. Gillis, Georgetown University, Schools of Medicine and Dentistry, Washington, D.C. (Sponsor: S.L. Schwartz)


23. Characterization of Cytosol-Induced Nephrotoxicity. W.O. Berndt, University of Mississippi Medical Center, Jackson, Mississippi. (Sponsor: A. Hume)


March 15, 1976

MONDAY MORNING — HALL OF NATIONS
EXHIBITION HALL

"Agricultural Chemicals I  Posters II"
Chairman:  P. Wright

10:30 — 12:00


30. Dosage Relationships Associated with DDT in Milk. W.J. Hayes, Jr., School of Medicine Vanderbilt University, Nashville, Tennessee.


36. Interaction of Paraquat with pulmonary microsomal enzyme systems. M. R. Montgomery, VA Hospital, University of Minnesota, Minneapolis, Minnesota, (Sponsor: T.E. Gram)
GRAND BALLROOMS NORTH AND CENTER
"Joint Symposium"
Environmental Mutagen Society
and
Society of Toxicology
Monday, March 15, 1976
9:00 — 12:00

The Low-Dose Extrapolation Dilemma

Moderator:  John W. Drake, Department of Microbiology,
            University of Illinois, Urbana-Champaign, Illinois

The Use of Models for Low-Dose Extrapolation
David W. Gaylor, Chief, Biometry,
National Center for Toxicological
Research, Jefferson, Arkansas

Restrains for Consideration Before Extrapolation
Carrol S. Well, Senior Fellow, Carnegie-Mellon
Institute of Research, Carnegie-Mellon University,
Pittsburgh, Pennsylvania
MARCH 15, 1976

MONDAY AFTERNOON — GRAND BALLROOM NORTH AND CENTER

"Mutagenesis"

Chairman:  M. Hite

Assisted by:  B. Jackson and W. Bagdon

1:15  37. Results of a collaborative cytogenetic study to measure interlaboratory variation. D.J. Kilian, F. Moreland, M. Benge and E. Whorton, Dow Chemical USA, Freeport, Texas; FDA, Washington, D.C., University of Texas Medical Branch, Galveston, Texas.


20-MINUTE BREAK


3:15  42. In Vitro mutagenic studies of twenty pesticides. V.F. Simmon, D.C. Poole, and G.W. Newell, Stanford Research Institute, Menlo Park, California.


4:40  Annual Business Meeting

Grand Ballroom: North-Center
Members of The Society of Toxicology
March 15, 1976

MONDAY AFTERNOON — GRAND BALLROOM
SOUTH

"Metabolism II"

Chairman: W. Hayes
Assisted by: A. Hume


1:35 47. The influence of Inhaled ketone solvent vapors on hepatic microsomal biotransformation activities. L.B. Hetland, D. Couri, and M.S. Abdel Rahman, Ohio State University, Columbus, Ohio.


2:35 50. The influence of prolonged low-level ingestion of a commercial poly-chlorinated biphenyl mixture (Aroclor 1254) on drug metabolism in the rat. J.V. Bruckner, W.D. Jiang, V. Stella and C. Chu, University of Texas Medical School Houston Texas and School of Pharmacy, University of Kansas, Lawrence, Kansas.

20-MINUTE BREAK

3:15 51. Effect of various carcinogens (DMBA, ENU) on Testosterone-3H metabolism and DNA synthesis in the rat prostate. W. Edwards and J.A. Thomas, West Virginia University Medical Center, Morgantown, West Virginia.


4:15 54. Effect of chronic administration of pyridostigmine on its disposition in rat. S.M. Somani, B. Woodford and R. Moore, School of Medicine, Southern Illinois University, Springfield, Illinois.

4:40 Annual Business Meeting
Grand Ballroom: North-Center
Members of The Society of Toxicology
March 15, 1976

MONDAY AFTERNOON — TARA BALLROOM

1, 2, 3

"Industrial And Environmental Toxicity"

Chairman:  E. S. Harris
Assisted by:  F. Reno


2:15  58.  The acute exposure of rats to the thermal degradation of polyurethane foams.  R.H. Bell, K.L. Stemmer, and W. Barkley, College of Medicine, University of Cincinnati, Cincinnati, Ohio.  (Sponsor:  T.R. Lewis)

2:35  59.  Subacutec toxicities of 2,4-dinitrotoluene and 2,6-dinitrotoluene.  H.V. Ellis III, J.V. Dilley and C.C. Lee, Midwest Research Institute, Kansas City, Missouri.

20-MINUTE BREAK

3:15  60.  Photochemical-Oxidant Induced Sensory Irritation: Development of an animal model system.  L.E. Kane and Y. Alarie, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, Pennsylvania.


4:40  Annual Business Meeting
      Grand Ballroom
      North and Center
      Members of The Society of Toxicology
March 15, 1976

MONDAY AFTERNOON — HALL OF NATIONS EXHIBITION HALL

“General Chemical Toxicity Poster I”
Chairman: R. Freudenthal

1:00-2:30

64. Recycling of Naphthalene and Naphthalene Metabolites through monoxygenase systems. M.G. Hornig, C.D. Kary, P.A. Gregory and W.G. Stillwell, Baylor College of Medicine, Houston, Texas.


4:40

Annual Business Meeting — Grand Ballroom North and Center
Members of The Society of Toxicology
March 15, 1976

MONDAY AFTERNOON — HALL OF NATIONS
EXHIBITION HALL

"Hepatic Toxicity — Poster II"
Chairman: R. Jaeger

2:45 — 4:15


72. Subacute toxicity of diethanolamine: alteration of mitochondrial function. S.J. Barbee and R. Hartung, Department of Environmental and Industrial Health, University of Michigan, Ann Arbor, Michigan.

73. Cyclohexylmethylenetrinitramine (RDX)-Induced ultrastructural changes in rat liver and kidney. J.E. French*, S.L. Bradley*, N.R. Schneider*, M.E. Andersen and L.J. Jenkins Jr., *Armed Forces Radiobiology Research Institute, †National Naval Medical Center, Bethesda, Maryland, ‡Toxicology Division, FBS Department, Naval Medical Research Institute, National Naval Medical Center, Bethesda, Maryland.

74. A study of the product complex formation of an insect juvenile hormone analog with Hepatic cytochrome P-450. R.T. Mayer and R.A. Prough, ARS, USDA, College Station, Texas and Biochemical Department of the University of Texas Science Health Center of Dallas, Dallas, Texas. (Sponsor: H.E. Smalley)

75. Studies on the metabolism of N-Trichloromethylthio-4-cyclohexene-1,2-dicarboximide (Captan) by Rat liver drug metabolizing enzyme system. A. Peeples, and R.R. Dalvi, Toxicology Laboratory, School of Veterinary Medicine, Tuskegee Institute, Tuskegee, Alabama. (Sponsor: R.A. Neal)

76. In vivo and in vitro effects of a-naphthylisothiocyanate on hepatic microsomal drug metabolism. B.G. Priestly and R. Drew, University of Adelaide, South Australia. (Sponsor G.L. Piaa)

77. Parameters of Collagen synthesis in normal and cirrhotic human liver. G.C. Fuller, University of Rhode Island, Kingston, Rhode Island, S. Fink and J.V. Rodil, VA Hospital, Providence, Rhode Island.


79. Biotransformation of hexane and methyl n-butyl ketone. D. Couri, M.S. Abdel-Rahman and L.B. Hettel, Ohio State University College of Medicine, Columbus, Ohio.
March 16, 1976

TUESDAY MORNING — GRAND BALLROOM NORTH
“Reproduction”
Chairman: J. Kirschman
Assisted by: G. Kennedy and J. Elsea


9:30  83. Effects of nicotine on the release of human placental acetylcholine and its significance to fetal growth. J. Olubadewo and B.V. Rama Sastry, Vanderbilt University School of Medicine, Nashville, Tennessee.

20-MINUTE BREAK


March 16, 1976

TUESDAY MORNING — TARA BALLROOM
1, 2, 3
“General Toxicity II”
Chairman:  L. Scheel
Assisted by:  C. Chesney and R. Kociba


8:50  89.  The changing role of information systems in toxicology research.  L.R. Lawrence, and A.J. Konvicka. National Center for Toxicological Research, Jefferson, Arkansas. (Sponsor: M.F. Cranmer)


9:30  91.  The use of mean survival time analysis in assessing toxic interactions.  L.J. Jenkins Jr., R.A. Jones and M.E. Andersen. Naval Medical Research Institute, Bethesda, Maryland.

9:50  92.  Conditioned avoidance responses in mice surviving a dominant lethal test and in mice treated neonatally with neuroleptic drugs.  H.C. Yen-Koo, K.W. Petersen and T. Balazs. FDA. Washington D.C.

20-MINUTE BREAK

10:30  93.  Spontaneous and evoked EEG changes observed in neonatal rats following in-utero exposure to Baygon. A preliminary investigation.  L. Rosenstein and N. Chernoff. US EPA. Research Triangle Park, North Carolina. (Sponsor: W.F. Durham)


TUESDAY MORNING — GRAND BALLROOM
SOUTH

"Applied Pharmacology"

Chairman: T. Lewis
Assisted by: R. Snyder and H. Sherman

8:30  97. Drug induced antagonism of shock potentiated D-amphetamine lethality. M. Wilson, University of Mississippi, School of Pharmacy, University, Mississippi. (Sponsor: M.W. Davis)


9:10  99. Effect of chronic acrylonitrile ingestion on rat adrenal. S. Szabo, E.S. Reynolds, P. Komanicky, M.T. Moslen and J.C. Melby, Peter Bent, Brigham Hospital and Harvard Medical School, Boston University Medical School, Boston, Massachusetts. (Sponsor: R.J. Jaeger)


10:10 101. Changes in whole blood serotonin levels in rats exposed to insecticide aerosols. P.E. Berteau and W.A. Deen, University of California School of Public Health, and Naval Biomedical Research Laboratory, Naval Supply Center, Oakland, California. (Sponsor: T. Wei)

20-MINUTE BREAK


March 16, 1976

TUESDAY MORNING — HALL OF NATIONS
EXHIBITION HALL

"Metabolism and Mycotoxins  Poster 1"
Chairman: B. Wilson

8:45 — 10:15


107. The fate of 2,4-dichlorophenoxyacetic acid (2,4-D) following oral administration to man. M.W. Sauerhoff, W.H. Braun, G.E. Blau and J.E. LeBeau, Dow Chemical Company, Midland, Michigan.

108. The distribution in mice of intravenously administered 14C-Di-2-ethylhexyl Phthalate (14C-DEHP) determined by whole-body autoradiography. W.J. Waddell and C. Marlowe, College of Medicine, University of Kentucky, Lexington, Kentucky. (Sponsor: P.J. Garvin)

109. Metabolism of 14C-Cyclotrimethylene-trinitramine (RDX) in the rat. N.R. Schneider*, S.L. Bradley* and M.F. Andersen†. *Armed Forces Radiobiology Research Institute, National Naval Medical Center, Bethesda, Maryland. †Toxicology Division, FBS Department, Naval Medical Center, Bethesda, Maryland. (Sponsor: J. Siegel)


111. Saturated metabolism as the mechanism for the dose dependent fate of 1,4-Dioxane in rats. J.D. Young, W.H. Braun, J.E. LeBeau and P.J. Gehring, Dow Chemical Company, Midland, Michigan.


115. Mycotoxicosis produced by cultural products of an isolate of Aspergillus Ochraceus. J.L. Zimmermann, W.W. Carlton and J. Tuite, School of Veterinary Medicine, Purdue University, West Lafayette, Indiana.
March 16, 1976

TUESDAY MORNING — HALL OF NATIONS
EXHIBITION HALL
"Mycotoxins and Food Chemicals Poster II"
Chairman: R. Dixon

10:30 — 12:00
116. Effect of Penstrem A on mouse brain and liver composition. R.D. Phillips and A.W. Hayes, University of Mississippi Medical Center, Jackson, Mississippi.

117. Effect of mycotoxins singly or in combination on neonate rats. S.A. Watson and A.W. Hayes, University of Mississippi Medical Center, Jackson, Mississippi.


"Symposium"

1:30 — 4:30 PM
Grand Ballroom — North-Center
Molecular basis of Toxic Action

24
March 16, 1976

TUESDAY AFTERNOON — GRAND BALLROOM
NORTH-CENTER
SOCIETY OF TOXICOLOGY
Symposium on
"Molecular Basis of Toxic Action"

1:30  Introductory Remarks — Robert E. Menzer, Professor of Entomology, University of Maryland, College Park, Maryland.

1:40  Acetylcholinesterase: Biochemical Studies on a Target Enzyme — Richard D. O'Brien, Director, Division of Biological Sciences, Cornell University, Ithaca, New York.

2:30  Molecular Basis of Aflatoxin Toxicity — Gerald N. Wogan, Professor of Toxicology, Massachusetts Institute of Technology, Cambridge, Massachusetts.

3:20  Some Biochemical Principles of Metal Toxicology — Bert L. Vallee, Paul C. Cabot Professor of Biological Chemistry, Harvard Medical School, Boston, Massachusetts.

4:10  General Discussion

7:30  Society of Toxicology Banquet
     Grand Ballroom
March 16, 1976

Tuesday Evening

7:30 P.M.

BANQUET

Grand Ballroom

Menu

Salad with Baby Shrimp

***

Broiled New York Steak
Maitre D'Hotel

Tomato Duchesse

Green Beans Amandine

***

Fresh Rolls and Butter

***

Peach Melba

***

Coffee

Wine: Courtesy of The Charles River Companies
March 17, 1976

WEDNESDAY MORNING — GRAND BALLROOM NORTH

"Halogenated Hydrocarbons I"

Chairman: V. Carter
Assisted by: R. Hehir


20-MINUTE BREAK

10:10 132. Characterization of various parameters of rat hepatic microsomal mixed function oxidase after induction by polybrominated biphenylis. J.G. Dent, K.J. Netter and J.E. Gibson. Department of Pharmacology, Section on Toxicology, University of Mainz, D-66 Mainz, West Germany.


11:10 135. Uptake and distribution of 4-Chlorobiphenyl by the isolated perfused rat liver. H.M. Mehendale. Department of Pharmacology and Toxicology, University of Mississippi Medical Center. Jackson. Mississippi. (Sponsor W.M. Davis)
March 17, 1976

WEDNESDAY MORNING — GRAND BALLROOM
SOUTH
"Teratology"
Chairman: B. Schwetz
Assisted by: B. N. Banerjee and D. Sofia


9:30 139. Alteration of delta-9-tetrahydrocannabinol-induced teratogenesis. R.D. Harbison and B. Mantilla-Plata, Vanderbilt Medical Center, Nashville, Tennessee and School of Medicine, Universidad de Antioquia, Medellin, Colombia.

9:50 140. Teratology studies on the metabolic inhibitors SKF-525A and piperonyl butoxide in mice and rabbits. B.A. Schwetz, F.J. Murray and R.E. Staples, Dow Chemical USA, Midland, Michigan, and National Institute of Environmental Health Sciences (RES), Research Triangle Park, North Carolina.

10:10 141. Teratogenic studies utilizing cultured embryonic mouse limb buds. J.M. Manson and C.C. Smith, Department of Environmental Health, University of Cincinnati, College of Medicine, Cincinnati, Ohio.

20-MINUTE BREAK

10:50 142. Enhancement of Acetylsalicylic acid induced teratogenicity by food restriction in rats. J.R. Beall, Department of Pathology and Toxicology, Schering Corp. Lafayette, New Jersey.

March 17, 1976

WEDNESDAY MORNING — TARA BALLROOM
SUITES 1, 2, 3

“Lung and Respiratory Tract”
Chairman: J. D. MacEwen
Assisted by: K. Darmer and E. Kinkead

8:30  144. Sensory irritation caused by the decomposition products of polyvinyl chloride. C.S. Barrow, Y. Alarie, M.F. Stock, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, Pennsylvania.

8:50  145. Evaluation of the irritancy potential of surface active agents. Assessment of activity upon the upper respiratory tract of guinea pigs, mice and rabbits. H.P. Ciuchta, Toxicology Research Unit, Gillette Medical Evaluation Laboratories, Rockville, Maryland.


9:30  147. Pulmonary aryl hydrocarbon hydroxylase: Tobacco smoke-exposed guinea pigs. M.H. Bilimoria, J. Johnson, J.C. Hogg and H.P. Witschi, Pathology Institute, McGill University, Montreal, Canada.

9:50  148. Electron microscopy of BHT-induced lung damage. K.J. Hirai, H.P. Witschi and M.G. Cote, Universite de Montreal, Montreal, Quebec, Canada.

20-MINUTE BREAK

10:10  149. The phthalate plasticizer, Di(2-ethylhexyl) phthalate (DEHP), and shock lung in rats. R.J. Rubin and J.C.F. Chang, The Johns Hopkins University School of Hygiene and Public Health, Baltimore, Maryland.


10:50  151. Zirconium and Aluminum localization in lung by Morin fluorescence and energy dispersive x-ray analysis. E. Kaszynski and E.O. Bernstein, Gillette Research Institute, Rockville, Maryland, (Sponsor: R.P. Giovacchini)

11:10  152. Inhalation toxicity of cyclohexene. S. Laham, Environmental Health Directorate, Health protection Branch, Health and Welfare Canada, Ottawa, K1A 0L2, Canada.
March 17, 1976

WEDNESDAY MORNING — HALL OF NATIONS
EXHIBITION HALL

"Metals I Poster I"
Chairman: B. Fowler

8:45 — 10:15

153. Tolerance development to Cadmium-Induced potentiation of drug action in male rats. S.A. Roberts, T.S. Miya and R.C. Schnell, School of Pharmacy and Pharmacal Sciences, Purdue University, West Lafayette, Indiana.

154. Sex-related differences in Cadmium toxicity in rats. D.J. Hicks, T.S. Miya and R.C. Schnell, School of Pharmacy and Pharmacal Sciences, Purdue University, West Lafayette, Indiana.


156. Interactions of Cadmium and Selenium in rat plasma in vivo and in vitro. T.A. Gaseiwicz and J.C. Smith, University of Rochester School of Medicine, Rochester, New York, (Sponsor: T. Fouts)

157. The effect of Thiocholesterol on the acute lethality of selected heavy metals in the mouse. J. Burgun, R. Martz, R. Forney L. Steinrauf and R. Blickenstaff, Indiana University School of Medicine, Indianapolis, Indiana.

158. Subacute effects of Rubidium chloride ingestion in the rat. C. Chow and H. Cornish, Interdepartmental Toxicology Program, University of Michigan, Ann Arbor, Michigan.

159. Cadmium-induced alterations in Calcium disposition. E.M. Yuhas, T.S. Miya, and R.C. Schnell, School of Pharmacy and Pharmacal Sciences, Purdue University, West Lafayette, Indiana.

March 17, 1976

WEDNESDAY MORNING — HALL OF NATIONS
EXHIBITION HALL

“Metals II Poster II”

Chairman: E. Pfitzer

10:30 — 12:00

161. Effects of chronic lead ingestion on total Acetylcholine content of mouse brain. A.T. Modak, S.T. Weintraub, W.B. Stavinoha, and R.H. Purdy, Division of Toxicology, University of Texas Health Science Center at San Antonio and Southwest Foundation for Research and Education, San Antonio, Texas.


168. Comparative effects of feeding Lead acetate and phospholipid-bound lead on blood and tissue lead levels in rats. Y. Ku, G.H. Alvarez and K.R. Mahaffey, FDA, Washington D.C. (Sponsor: S. Shibko)

169. The effect of early lead exposure on the behavior of developing rats. L. Hastings, G.P. Cooper and R.L. Bornschein, University of Cincinnati, College of Medicine, Cincinnati, Ohio. (Sponsor: C.C. Smith)
March 17, 1976

WEDNESDAY AFTERNOON — GRAND
BALLROOM — NORTH
1:00-4:30

“Behavioral Toxicology Workshop”
Chairman: C. Xintaras

Exchange of test methods and recent research findings among leaders in toxicology research who are concerned with (1) early detection of potential health and safety problems resulting from exposure to neurotoxic chemicals, (2) the application of behavioral/neurologic tests in medical surveillance of exposed workers, and (3) the use of behavioral/neurological findings in the development of health and safety standards. The workshop will focus on test methods used in animal research, controlled-environment human studies, and job-site worker research.

Presentations (lectures)
1. Principles and Concepts of Behavioral Toxicology Research — Speaker: Charles Xintaras, NIOSH.
2. Neurotoxicity Screen of New Chemicals — Speaker: Joane Spyker, Medical College of Virginia.
3. Neurotoxicity of Methyl Amyl Ketone — Speaker: Barry L. Johnson, NIOSH.
5. Application of Neurologic Tests in Behavioral Toxicology Research — Speaker: Robert Baloh, UCLA Medical Center.
6. Effects of Carbon Monoxide on Divided Attention — Author: Vernon R. Putz, NIOSH.
   Paper read by: Barry L. Johnson
7. Behavioral/Neurological Findings in Viscose Rayon Workers Exposed to CS2 — Speaker: Tom Tuttle, Westinghouse Corp.
8. Behavioral/Neurological Findings in Workers exposed to Pesticides — Speaker: Staff, Medical College of Virginia.

4:45 NAS-NRC “Special Report on the Committee on Toxicology” — R.C. Wands (National Academy of Sciences)
March 17, 1976

WEDNESDAY AFTERNOON — GRAND BALLROOM — SOUTH

"Drug Toxicity I"

Chairman: I. Heyman
Assisted by: E. Dillingham and J. Bruchner

1:15 170. Toxicologic studies with the hypotensive agent, Minoxidil. R.G. Carlson and E.S. Feenstra, Pathology and Toxicology Research, Upjohn Company, Kalamazoo, Michigan.


2:35 174. Toxicology of Phencyclidine in mice. C.J. Stone and R.B. Forney, Indiana University School of Medicine, Indianapolis, Indiana.


3:15 176. The acute toxicity of 2-Benzylaminopyridine. L. Griffis and R.B. Forney, Indiana University School of Medicine, Indianapolis, Indiana.


4:15 "Toxicology of Agricultural Chemicals Under Conditions of Use" — W.A. Rader, Chevy Chase, D.C.
March 17, 1976

WEDNESDAY AFTERNOON — TARA
BALLROOM SUITES 1, 2, 3
"Agricultural Chemicals II"
Chairman: H. B. Camp
Assisted: A. Wolven


2:10 180. Toxic interactions of Piperonyl butoxide with Dimethyl and Diethyl phosphorothionate insecticides in mice. B.S. Levine and S.D. Murphy, Harvard School of Public Health, Boston, Massachusetts.


3:10 183. Combined effects of Parathion and Carbaryl on the biotransformation of 3H-Testosterone(3H-T) in the male mouse. J.A. Thomas and L.G. Schein, West Virginia University Medical Center, Morgantown, West Virginia.


4:10 186. The inhibitory effect of DDT on Insulin secretion by isolated mouse pancreatic islets. E.T. Yau and J.H. Mennear, Purdue University, West Lafayette, Indiana.
March 17, 1976

WEDNESDAY AFTERNOON — HALL OF NATIONS EXHIBITION HALL
"Halogenated Hydrocarbons II Poster Session II"
Chairman:  E. VanStee

1:30 — 3:00

187. The nature of the inhibition of renal transport caused by the acute administration of 2,4,5-Trichlorophenoxyacetic acid (2,4,5-T). F. Koschier and W.O. Berndt, University of Mississippi Medical Center, Jackson, Mississippi. (Sponsor: A. Hume)


189. Alteration of Xenobiotic metabolism by chlorinated benzenes. G.P. Carlson and R.G. Tardiff, University of Rhode Island, Kingston, Rhode Island and EPA, Cincinnati, Ohio.

190. Tissue distribution and biliary excretion of 2,5,2',5'-Tetrachlorobiphenyl (TCB) and 2,4,5,2',4',5'-Hexachlorobiphenyl (HCB) in male and female rats. J.L. Seymour, R.E. Peterson and J.R. Allen, School of Medicine, School of Pharmacy and Regional Primate Research Center, University of Wisconsin, Madison, Wisconsin. (Sponsor: C.L. Hake)

191. The potential methemoglobin and Heinz body inducing capacity of Pentachloronitrobenzene (PCNB) in the cat. A.M. Schumann and J.F. Borzelleca, Medical College of Virginia, Richmond, Virginia.


193. Biochemical observations on Methylene chloride-induced fatty liver. J.B. Morris and F.A. Smith, University of Rochester School of Medicine and Dentistry, Rochester, New York.

194. D-Chloroprene (2-Chlorobutadiene-1,3) embroyotoxic and teratogenic studies in rats. R. Culik, D.P. Kelly and J.J. Clary, Haskell Laboratory for Toxicology and Industrial Medicine, E.I. duPont de Nemours and Company, Elkton Road, Newark, Delaware.

195. Some factors affecting the mortality of fasted rats intubated with 1,1-Dichloroethylene. M.E. Andersen and L.J. Jenkins Jr., Naval Medical Research Institute, Bethesda, Maryland.

3:15 — 4:45


198. Distribution of $^{14}$C-1,1-DCE in fed or fasted rats. L.G. Shoner, R.J. Jæger and S.D. Murphy, Harvard School of Public Health, Boston, Massachussetts.

199. Hepatotoxicity of 1,1-Dichloroethylene: Influence of altered thyroid function in rats. R.J. Jæger, S. Szabo, L. Coffman, M.T. Moslen, E.S. Reynolds and S.D. Murphy, Harvard School of Public Health, and Departments of Pathology, Harvard Medical School and Peter Bent Brigham Hospital, Boston, Massachussetts.


203. The relationship between retention of pure Chlorobiphenyl congeners in rat liver and effects on hepatic mixed function oxidases. M.M. Hansell and D.J. Ecobichon, Dalhousie University, Halifax, Canada.


March 18, 1976

THURSDAY MORNING — GRAND BALLROOM NORTH

"Oncogenesis"

Chairman: N. Page
Assisted by: L. VanPetten and R. Swickey

8:30  207. Relation of chemically induced hyperplasia to neoplasia of mouse bladder urothelium. C.H. Frith, University of Arkansas College of Medicine, Little Rock, Arkansas and The National Center for Toxicological Research, Jefferson, Arkansas. (Sponsor: B. Highman)


March 18, 1976

THURSDAY MORNING — GRAND BALLROOM
SOUTH
"Drug Toxicity II"
Chairman: E. Goldenthal
Assisted by: R. Steelman and J. Smith


9:10 218. The effect of Spironolactone on the toxicity of Indomethacin. C.D. Klaassen, University of Kansas Medical Center, Kansas City, Kansas.


10:30 222. Thymus, the forgotten organ in toxicological testing? T. Malmfors, Astra Pharmaceuticals AB, Sodertalje, Sweden.

10:50 223. Pharmacological effects of the combined administration of ethanol and methaqualone in mice. J. Brodeur, J.J. Rousseau and M. Rousseau, Faculty of Medicine, Universite de Montreal, Montreal, Canada.

March 18, 1976

THURSDAY MORNING — TARA BALLROOM
SUITES 1, 2, 3,
"Eye and Ear"
Chairman: R. Bagdon
Assisted by: G. Kennedy and F. Kinoshita

8:30  225. Evaluation of proposed changes in the modified Draize rabbit irritation test. S. Bayard, Division of Scientific Coordination, R.M. Hehir, Director, Bureau of Biomedical Science, Consumer Product Safety Commission, Bethesda, Maryland.


9:10  227. A comparative study of rabbit ocular reactions to various exposure times to chemicals. V.M. Seabaugh, R.E. Ostergberg, C.A. Hoheisel, J.C. Murphy*, G.W. Bierbauer, Division of Biomedical Science, Bureau of Biomedical Science, CPSC, Washington, D.C., and *University of Mississippi, Jackson, Mississippi. (Sponsor: J. McLaughlin Jr.)


10:10 230. Pupillary response to Dichlorvos in the dog. F.B. Winston, D.J. Wagstaff and J. Hazelwood, FDA, Division of Veterinary Research, Beltsville, Maryland.

March 18, 1976

THURSDAY MORNING — HALL OF NATIONS
EXHIBITION HALL

"General Poster Session"

8:45 — 10:15

232. Distribution of metabolites of benzo(a)pyrene in the isolated perfused rabbit lung preparation. W. Dalbey and E. Bingham, University of Cincinnati, College of Medicine, Cincinnati, Ohio.


234. The effect of hemoglobin, myoglobin and furosemide on renal oxygen consumption in the dog. W.M. Watrous, M. Trew and M.A. Baltzan, College of Medicine University of Saskatchewan, Saskatoon, Canada.


