18th ANNUAL MEETING
March 11-15, 1979
Marriott Hotel
New Orleans, Louisiana

PROGRAM
EIGHTEENTH ANNUAL MEETING

sponsored by

Society of Toxicology

Marriott Hotel - New Orleans, Louisiana
March 11 - 15, 1979

REGISTRATION FEES*

<table>
<thead>
<tr>
<th></th>
<th>Member</th>
<th>Non-Member</th>
<th>Student, Full-time, Predoctoral</th>
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<tr>
<td>Preregistration</td>
<td>$30.00</td>
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<td>At Conference</td>
<td>40.00</td>
<td>50.00</td>
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<tr>
<td>Banquet</td>
<td>16.00</td>
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*Payable in U.S. funds only. Return form with payment to:
Executive Secretary, Society of Toxicology
475 Wolf Ledges Parkway
Akron, OH 44311    Tel.: 216/762-2289
## Sessions Summary

<table>
<thead>
<tr>
<th>Day</th>
<th>Topic</th>
<th>Platform</th>
<th>Room</th>
<th>See Page</th>
</tr>
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<tbody>
<tr>
<td>Monday</td>
<td>Inhalation Toxicology I</td>
<td>Mardi Gras Ballroom A, B, C, D</td>
<td>Mardi Gras Ballroom E, F, G, H</td>
<td>14</td>
</tr>
<tr>
<td>A.M.</td>
<td>Metabolism I</td>
<td>Mardi Gras Ballroom E, F, G, H</td>
<td>Grand Ballroom (Acadia)</td>
<td>16</td>
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<tr>
<td></td>
<td>Mycotoxins</td>
<td>Grand Ballroom (Acadia)</td>
<td></td>
<td>17</td>
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<tr>
<td>P.M.</td>
<td>Mutageosis I</td>
<td>Mardi Gras Ballroom A, B, C, D</td>
<td>Grand Ballroom (Acadia)</td>
<td>24</td>
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<td>Nervous System I</td>
<td>Grand Ballroom (Acadia)</td>
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<td>Tuesday</td>
<td>Inhalation Toxicology III</td>
<td>Mardi Gras Ballroom A, B, C, D</td>
<td>Mardi Gras Ballroom E, F, G, H</td>
<td>31</td>
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<tr>
<td>A.M.</td>
<td>Immunotoxicology</td>
<td>Mardi Gras Ballroom E, F, G, H</td>
<td>Grand Ballroom (Acadia)</td>
<td>34</td>
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<tr>
<td></td>
<td>Metabolism II</td>
<td>Grand Ballroom (Acadia)</td>
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<tr>
<td>Wednesday</td>
<td>Halogenated Hydrocarbons I</td>
<td>Mardi Gras Ballroom A, B, C, D</td>
<td>Mardi Gras Ballroom E, F, G, H</td>
<td>40</td>
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<tr>
<td>A.M.</td>
<td>Metals II</td>
<td>Mardi Gras Ballroom E, F, G, H</td>
<td>Grand Ballroom (Acadia)</td>
<td>41</td>
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<tr>
<td></td>
<td>Reproduction &amp; Development II</td>
<td>Grand Ballroom (Acadia)</td>
<td></td>
<td>42</td>
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<tr>
<td>P.M.</td>
<td>Drug Toxicology</td>
<td>Mardi Gras Ballroom E, F, G, H</td>
<td>Grand Ballroom (Acadia)</td>
<td>48</td>
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<td></td>
<td>Oncogenesis</td>
<td>Grand Ballroom (Acadia)</td>
<td></td>
<td>49</td>
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<tr>
<td>Thursday</td>
<td>Environmental &amp; Industrial II</td>
<td>Mardi Gras Ballroom A, B, C, D</td>
<td>Mardi Gras Ballroom E, F, G, H</td>
<td>56</td>
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<tr>
<td>A.M.</td>
<td>Halogenated Hydrocarbons III</td>
<td>Mardi Gras Ballroom E, F, G, H</td>
<td>Grand Ballroom (Acadia)</td>
<td>57</td>
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<tr>
<td></td>
<td>Hepatic &amp; Gastrointestinal</td>
<td>Grand Ballroom (Acadia)</td>
<td></td>
<td>59</td>
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## Symposia

<table>
<thead>
<tr>
<th>Day</th>
<th>Topic</th>
<th>Location</th>
<th>See Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday</td>
<td>Industrial Symposium (Environmental Mutagens Society - SOT Registrants invited)</td>
<td>Monteleone Hotel</td>
<td>13</td>
</tr>
<tr>
<td>P.M.</td>
<td>Animal Models in Human Risk Estimation (Jointly with Environmental Mutagens Society &amp; Society of Teratology)</td>
<td>Grand Ballroom (Carondelet)</td>
<td>14</td>
</tr>
<tr>
<td>Monday</td>
<td>Aquatic Toxicology</td>
<td>Grand Ballroom (Carondelet)</td>
<td>30</td>
</tr>
<tr>
<td>A.M.</td>
<td>Arias on TOSCA</td>
<td>Grand Ballroom (Carondelet)</td>
<td>39</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Who Needs Toxicologists? (Jointly with American Academy of Clinical Toxicology, American Association of Poison Control Centers, American Board of Medical Technology, and Canadian Academy of Clinical and Analytical Toxicology)</td>
<td>Grand Ballroom (Carondelet)</td>
<td>48</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Novel Analytical Support for Clinical Toxicology (Jointly with American Academy of Clinical</td>
<td>Grand Ballroom (Carondelet)</td>
<td>55</td>
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<tr>
<td>P.M.</td>
<td></td>
<td></td>
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<tr>
<td>Thursday</td>
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## Poster

<table>
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<tr>
<th>Day</th>
<th>Topic</th>
<th>Room</th>
<th>See Page</th>
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<tbody>
<tr>
<td>Monday A.M.</td>
<td>Cardiovascular &amp; Renal</td>
<td>— NOTE —</td>
<td>18</td>
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<tr>
<td></td>
<td>Environmental &amp; Industrial I</td>
<td>All Poster Sessions are in the</td>
<td>19</td>
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<tr>
<td></td>
<td>Reproduction &amp; Development I</td>
<td>East End of the Exhibit Hall.</td>
<td>21</td>
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<tr>
<td>Monday P.M.</td>
<td>Inhalation Toxicology II</td>
<td>(Second Floor)</td>
<td>26</td>
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<tr>
<td></td>
<td>Metals I</td>
<td></td>
<td>29</td>
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<tr>
<td>Tuesday A.M.</td>
<td>General Toxicology II</td>
<td></td>
<td>37</td>
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<tr>
<td>Wednesday A.M.</td>
<td>General Toxicology III</td>
<td></td>
<td>43</td>
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<tr>
<td></td>
<td>Mutagenesis II</td>
<td></td>
<td>45</td>
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<tr>
<td>Wednesday P.M.</td>
<td>Halogenated Hydrocarbons II</td>
<td></td>
<td>50</td>
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<td></td>
<td>Metabolism III</td>
<td></td>
<td>52</td>
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<tr>
<td>Thursday A.M.</td>
<td>Agricultural Chemicals II</td>
<td></td>
<td>60</td>
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<tr>
<td></td>
<td>Nervous System II</td>
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<td>61</td>
</tr>
</tbody>
</table>

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### Annual Business Meeting

Tuesday, March 13, 1979

3:30 P.M.

Grand Ballroom

*Open to all SOT Members*
—GENERAL MEETING INFORMATION—

Abstracts of Papers
Distributed without charge to all members of the Society of Toxicology and to all preregistrants in advance of the meeting. Those registering at the meeting will be given the abstracts with their registration. Additional copies available at conference registration desk (Second Floor) at $5 each.

Hotel Accommodations
The Marriott Hotel is Conference headquarters. The following guaranteed guest room rates apply when reservations are made on the printed form accompanying the Pre-conference mailing:

- Single: $48-$60
- Twin or Double: $58-$70

The Marriott accepts the following credit cards:
- American Express
- Bank Americard
- VISA
- Carte Blanche
- Diners Club
- Master Charge

Sessions
All held on the second and third floors of the Marriott Hotel. Ladies Hospitality Room - Mardi Gras balcony; L, M, N

Snack Bar
A snack bar will be open Monday, Tuesday, Wednesday in the Exhibit Hall 7:45 a.m. - 4:30 p.m.

Conference Office
Second Floor, Registration Area
SPECIAL EVENTS AND SERVICES

Annual Banquet
Grand Ballroom, 7:00 p.m., Wednesday, March 14, $16. Complimentary wine, courtesy, Charles River Breeding Laboratories.

Annual Business Meeting
Grand Ballroom, 3:30 P.M. Tuesday. Open to all Society of Toxicology members.

“Issues” Session
Mardi Gras Ballroom A, B, C, D, Wednesday 12:00 - 1:15 P.M. The officers and Councilors will be available for discussions of pertinent questions with the membership in an open forum. Bring your sandwich, etc., from the Snack Bar and participate in a stimulating discussion of SOT affairs.

Ladies Hospitality
Mardi Gras Balcony L, M, N (Fourth Floor), 9 A.M. - 4 P.M., Monday, Tuesday, Wednesday; 9 A.M. - Noon, Thursday.

Mixer and Reception

Placement Service
Iberville and Bacchus Rooms (Fourth Floor),
10 A.M. - Noon, Monday, Tuesday, Wednesday
2 P.M. - 4 P.M., Monday, Tuesday
Co-Chairmen: Mark Hite, W.E. Rinehart

Press Room
Regent Room (Fourth Floor),
8 A.M. - 9 P.M., Monday, Tuesday, Wednesday
8 A.M. - Noon, Thursday
NOTE
The Environmental Mutagens Society Industrial Symposium, Sunday afternoon, March 11, in the Monteleone Hotel is open to all SOT members provided you wear your registration badge. The members of EMS are invited to participate in our Monday morning sessions. The Wednesday afternoon symposium is a joint activity with the American Academy of Clinical Toxicology, American Association of Poison Control Centers, American Board of Medical Technology, and Canadian Academy of Clinical and Analytical Toxicology, as are the Thursday morning sessions. The joint meeting of these four Societies will continue through March 16 at the Marriott. Society of Toxicology registrants may attend at no additional charge by displaying their registration badge.
COUNCIL (1978-1979)
(Composed of the Officers and four elected Councilors)

OFFICERS
Leon Golberg, President
Tom S. Miya, President-Elect
Gale C. Boxill, Secretary
Harold N. MacFarland, Treasurer
Harold M. Peck, Past President

COUNCILORS
Mary O. Amdur (1978-1980)
Herbert H. Cornish (1977-1979)
Robert A. Neal (1977-1979)
Charles F. Reinhardt (1978-1980)

EXECUTIVE SECRETARY
William E. McCormick
475 Wolf Ledges Parkway
Akron, OH 44311
(216) 762-2289

1979 CONFERENCE
General Manager: Gale C. Boxill
Assistant: William E. McCormick
Registrar: Steven D. Cohen
Arrangements Chairman: Fred W. Oehme

PROGRAM COMMITTEE
Tom S. Miya, Chairman
Gale C. Boxill, Secretary
Morris M. Joselow (1976-1979)
James M. McNerney (1976-1979)
John H. Mennen (1976-1979)
COMMITTEES (1978-1979)

ELECTED COMMITTEES

Educational Committee
James E. Gibson (1977-1979), Chairman
Yves Alarie (1978-1980)
Joseph C. Street (1977-1979)

Finance Committee
Harold N. MacFarland, Chairman
Wayland J. Hayes, Jr. (1977-1979)
Dorothy B. Hood (1977-1979)
Ian C. Munro (1978-1980)

Membership Committee
Jiro K. Kodama (1976-1979), Chairman

APPOINTED COMMITTEES

Awards Committee
Harold M. Peck, Chairman
Mary O. Amdur
Charles F. Reinhardt

Nominating Committee
Robert A. Scala, Chairman
John L. Emmerson
Wendell W. Kilgore
Ian C. Munro
Norbert P. Page

Technical Committee
A. Wallace Hayes, Chairman
Gerald L. Kennedy, Jr. Co-Chairman
Tibor Balazs
William W. Carlton
Bruce A. Fowler
Irwin A. Heyman
Benjamin A. Jackson
Gordon W. Newell
Carl C. Smith
Carrol S. Weil
Consultant
Robert G. Tardiff
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
John W. Daniel
William F. Durham
Milton Eisler
Donald D. McCollister
Emil Poulsen
Gaston Vettorazzi

Committee for Legislative Assistance

Seymour L. Friess, Chairman
Victor A. Drill
Ted A. Loomis
Roger O. McClellan
Verald K. Rowe

Committee on Professional Relations and Standards

Charles F. Reinhardt, Chairman
Herbert H. Cornish
Fred W. Oshme
Jerry M. Smith
Ralph C. Wands
Anne M. Wolven-Garrett

Board of Publications

Robert E. Menzer (1976-1979), Chairman
Gabriel L. Plaa
Leon Golberg, President
Tom S. Miya, Auditor

APPOINTMENTS

**Historian
Harry W. Hays
Placement
Mark Hite, Director†
William E. Rinehart, Co-Director

Representative to the Steering Committee of the
International congress of Toxicology
Seymour L. Friess

Representative to American Association for
Accreditation of Laboratory Animal Care
Irwin A. Heyman

††Liaison with European Society of Toxicology
Robert A. Scala
Bo Holmstedt

Liaison to American Society
for Pharmacology and
Experimental Therapeutics
Robert L. Dixon
Perry J. Gehring
Tom S. Miya

*Liaison with American Industrial Hygiene Association
Gale C. Boxill
Leon Golberg
Tom S. Miya

†Liaison with Environmental Mutagen Society
Gordon W. Newell

†Liaison with National Society for Medical Research
Paul J. Garvin

* Liaison with Teratology Society
Robert E. Staples

* Appointment for 1 year, ends April 30, 1979
** Appointment for 5 years, ends April 30, 1979
† Continuing appointment
†† Annual reappointment on a continuing basis
### FUTURE MEETINGS - SOCIETY OF TOXICOLOGY

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Year</th>
<th>Dates</th>
<th>Location</th>
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<tr>
<td>19</td>
<td>1980</td>
<td>March 9-13</td>
<td>Sheraton Park Hotel</td>
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<td></td>
<td></td>
<td></td>
<td>Washington, DC</td>
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<tr>
<td>20</td>
<td>1981</td>
<td>March 8-12</td>
<td>Washington Hilton</td>
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<td></td>
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<td>Washington, DC</td>
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<td>21</td>
<td>1982</td>
<td>March 7-11</td>
<td>Sheraton Boston</td>
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<td></td>
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<td>Boston, MA</td>
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<td>22</td>
<td>1983</td>
<td>March</td>
<td>Las Vegas, NV</td>
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<td>(Hotel not selected)</td>
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<td>23</td>
<td>1984</td>
<td>March 11-15</td>
<td>Atlanta Hilton</td>
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<td>Atlanta, GA</td>
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### PAST PRESIDENTS

- 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
- Sheldon D. Murphy ...................................... 1974-1975
- Seymour L. Friess ........................................ 1975-1976
- Robert A. Scala .......................................... 1976-1977
- Harold M. Peck .......................................... 1977-1978
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
1976 ........................................ V.K. Rowe
1977 ........................................ H.W. Hays
1978 ........................................ J.M. Coon

Frank R. Blood

1974 ........................................ Y. Alarie
1975 ........................................ D.J. Ecobichon
G.J. Johnstone
O. Hutzinger
1976 ........................................ R.D. Brown
1977 ........................................ J. Dedinas
G.D. DiVincenzo
C.J. Kaplan
1978 ........................................ P.J. Gehring
E.O. Madrid
G.R. McGowan
P.G. Watanabe

Achievement

1967 ........................................ G.L. Plaa
1968 ........................................ A.H. Conney
1969 ........................................ S.S. Epstein
1970 ........................................ S.D. Murphy
1971 ........................................ Y. Alarie
1972 ........................................ R.L. Dixon
1973 ........................................ (No Award)
1974 ........................................ M.F. Cranmer
1975 ........................................ I.C. Munro
1976 ........................................ C.D. Klaassen
1977 ........................................ J.E. Gibson
1978 ........................................ R.D. Harbison

Education

1975 ........................................ H.C. Hodge
1976 ........................................ T.A. Loomis
1977 ........................................ R.B. Forney
1978 ........................................ (No Award)
Industrial Symposium:
Mutagens and Carcinogens in Food

(Environmental Mutagens Society)

Sunday Afternoon, March 11, 1979
2:00 P.M. - 5:00 P.M.

Monteleone Hotel

Chairperson: M. J. Prival, U. S. Food and Drug Administration,
Washington, DC

(All SOT registrants are invited. Show your registration badge)

Mutagenic Testing of Generally Recognized as Safe
(Gras) Additives in Food. M. J. Prival, U.S. Food & Drug
Admin., Washington, DC

In Vitro and In Vivo Mutagenicity of Selected
Pesticides. G. W. Newell, National Academy of
Sciences/National Research Council, Washington, DC

Nitrate, Nitrite, and Nitrosamines: Intake Versus
Endogenous Formation. S. R. Tannenbaum,
Massachusetts Institute of Technology, Cambridge, MA

Mutagens in Cooked Foods and Their Implication for
Cancer Prevention. Takashi Sugimura, National Cancer
Center Research Institute, Tokyo, Japan

Mixer and Reception

Sunday, March 11, 1979
6:00 - 7:30 P.M.

Grand Ballroom
Marriott Hotel
Cash Bar
open to all attendees and guests
SYMPOSIUM*
Animal Models in Human Risk Estimation
Monday Morning, March 12, 1979
8:30 - 10:30 A.M.
Grand Ballroom (Carondelet)
Chairperson: J.J. McPhillips, Astra Pharmaceutical Products,
Framingham, MA

Introductory Remarks - J.J. McPhillips

8:30 Animal Models for Mutagenesis. M.A. Bender, Brookhaven National Laboratory, Upton, NY
9:30 Decision Points in Carcinogenesis Testing. J.H. Weisberger, (Co-authored by G.M. Williams), The Naylor Dana Institute for Disease Prevention, American Health Foundation, Valhalla, NY
10:00 Discussion

*Jointly with Environmental Mutagens Society and Teratology Society.

PLATFORM SESSION 1: Inhalation Toxicology I
Monday Morning, March 12, 1979
Mardi Gras Ballroom A, B, C, D

Co-Chairpersons: R.J. Jaeger, Harvard School of Public Health,
Boston, MA; E.W. Van Stee, NIEHS, Research Triangle Park, NC

<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (A.M.)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8:30</td>
<td>The Importance and Results of Proper Morphologic Evaluation of the Nasal Turbinates in Inhalation Toxicity Studies. G.C. Jersey and R.J. Kociba, Toxicology Research Laboratory, Dow Chemical U.S.A., Midland, MI</td>
</tr>
<tr>
<td>2</td>
<td>8:45</td>
<td>Sensory Irritation with Toluene Diisocyanate in Single and Repeated Exposures. G.K. Sangha and Y. Alarie University of Pittsburgh, Dept. of Ind. Env. Hlth. Sci., Pittsburgh, PA</td>
</tr>
</tbody>
</table>
3 9:00 Interactions of Sulfur Dioxide and Acrolein as Sensory Irritants During Inhalation Studies in Mice. L.E. Kane and Y. Alarie University of Pittsburgh, Dept. of Ind. Env. Hlth. Sci., Pittsburgh, PA


5 9:30 Differing Toxicity of 0.4 and 0.8 μm Sulfuric Acid Aerosols in Guinea Pigs. R.K. Wolff, S.A. Silbaugh, D.G. Brownstein and J.L. Maudeley, Inhalation Toxicology Res. Inst. Albuquerque, NM. Sponsor: R.O. McClellan


7 10:00 The Pulmonary Retention of Coal Dusts in Dogs P.E. Morrow, F.R. Gibb, H. Beiter and F. Amato, Department of Radiation Biology and Biophysics, Univ. of Rochester, Rochester, NY

10:15 Break - 15 minutes


10 11:00 Acute Mortality Due to Inhalation of Thermal Decomposition Products of Synthetic and Natural Polymers. R.C. Anderson and Y. Alarie University of Pittsburgh, Dept. of Ind. Env. Hlth. Sci., Pittsburgh, PA


### PLATFORM SESSION 2: Metabolism I

**Monday Morning, March 12, 1979**  
Mardi Gras Ballroom E, F, G, H  

*Co-Chairpersons: C.F. Wilkinson, Cornell Univ., Ithaca, NY  
R.I. Krieger, Univ. of California, Davis, CA*

<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (A.M.)</th>
<th>Title</th>
<th>Authors/Institutions</th>
</tr>
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<tbody>
<tr>
<td>14</td>
<td>8:30</td>
<td>The Biotransformation and Biliary Excretion of Ethyl-fluralin in Male Rats</td>
<td>G.K. Hanasono and C.L. Moss, Toxicology Division, Lilly Research Laboratories, Greenwood, IN. Sponsor: J.S. Wold</td>
</tr>
<tr>
<td>15</td>
<td>8:45</td>
<td>Comparative Metabolism of Lindane in Rats Following Administration by Two Oral Routes</td>
<td>M.F. Copeland and R.W. Chadwick, Environmental Protection Agency, HERL, Research Triangle Park, NC</td>
</tr>
<tr>
<td>16</td>
<td>9:00</td>
<td>Pharmacokinetic Studies on a New Candidate Antimalarial 3-Di-n-Butylamino-1-[2,6-Bis(4-Trifluoromethylphenyl)-4-Pyridyl] Propanol Methanesulfonate, WR-172435, CH₃SO₃H, in Rhesus Monkeys</td>
<td>J.R. Hodgson, J.L. Minor, C.C. Lee and H. Chung, Mid- west Research Institute, Kansas City, MO and Walter Reed Army Institute of Research, Washington, DC</td>
</tr>
<tr>
<td>18</td>
<td>9:30</td>
<td>Pharmacokinetics and Metabolism of Ethylenediamine in the Rat Following Oral, Endotracheal and Intravenous Dosing</td>
<td>R.S.H. Yang, M.J. Tallant, and D.N. O'Malley, Chemical Hygiene Fellowship, Carnegie-Mellon Inst. of Research, Pittsburgh, PA</td>
</tr>
<tr>
<td>19</td>
<td>9:45</td>
<td>The Pharmacokinetics and Metabolism of Inhaled Methylene Chloride in Rats.</td>
<td>M.J. McKenna, J.A. Zempel and W.H. Braun, Toxicology Research Laboratory, Health and Environmental Research, Dow Chemical USA, Midland, MI</td>
</tr>
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<td></td>
<td>10:00</td>
<td>Break - 30 minutes</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>10:30</td>
<td>The Disposition of Three- a -(2-Piperidyl)-2,8-Bis(Tri- fluoromethyl)-4-Quinolinemethanol Hydrochloride (WR 177, 602, HC1) in Mice</td>
<td>H. Chung, V. Jimmerson, D. Bounds, R. Keller and R. Rozman, Dept. of Pharmacology, Walter Reed Army Inst. of Research, Washington, DC</td>
</tr>
<tr>
<td>21</td>
<td>10:45</td>
<td>Metabolism of Ethyleneurea and Ethylene Thiourea in the Rat</td>
<td>F. Iverson, J. Lawrence and W. Marshall, Foods Directorate, Health Protection Branch, Ottawa, Canada, and Chemistry and Biology Research Institute, Agriculture Canada, Ottawa, Canada</td>
</tr>
<tr>
<td>22</td>
<td>11:00</td>
<td>Carbon Disulfide and Carbonyl Sulfide Metabolism in Isolated Hepatocytes</td>
<td>C.P. Chengelis and R.A. Neal</td>
</tr>
</tbody>
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PLATFORM SESSION 3: Mycotoxins
Monday Morning, March 12, 1979
Grand Ballroom (Acadia)

Co-Chairpersons: A.W. Hayes, Univ. Mississippi Med. Center, Jackson, MS
D.P.H. Hsieh, Univ. of California, Davis, CA

Paper No.  Time (A.M.)  Title
25  8:30   In Vitro and in Vivo Effects of Penicillic Acid on Adenosine Triphosphatase Activities in Mouse. P.K. Chan, T.D. Phillips and A.W. Hayes. Dept. of Pharmacol. and Toxicol., Univ. of Mississippi Medical Center, Jackson, MS


27  9:00   Renal and Hepatic Clearance Studies of Citrinin in Rats. R.D. Phillips, W.O. Berndt and A.W. Hayes. Dept. of Pharmacol. & Toxicol., Univ. Mississippi Medical Center, Jackson, MS

28  9:15   Toxicity of Secalonic Acid-D. C.S. Reddy, A.W. Hayes, W.L. Williams & A. Ciegler. Dept. Pharmacol. & Toxicol. and Dept. of Anatomy. Univ. Mississippi Medical Center, Jackson, MS


31  10:00  Alterations in Covalent Binding of Aflatoxin B1 to Liver Macromolecules as Influenced by Route of Administration. J.R. Hayes and T.C. Campbell Div. of Nutri. Sci., Cornell Univ. Ithaca, NY
10:15 Break - 15 minutes

32 10:30 The In Vivo and In Vitro Effects of Rubratoxin B on Hepatic Microsomal Enzymes in Male Mice. M.Y. Siraj and A.W. Hayes. Dept. Pharmacol. & Toxicol., Univ. Mississippi Medical Center, Jackson, MS

33 10:45 Effect of Altered Microsomal Metabolism on Rubratoxin Toxicity. S.A. Watson and A.W. Hayes, Dept. Pharmacol. & Toxicol., Univ. Mississippi Medical Center, Jackson, MS

34 11:00 The Aflatoxin Intake of Various Age Groups of Canadians. T. Kuiper-Goodman, D.C. Kirkpatrick and D. Krewski. Health Protection Branch, Ottawa, Canada

35 11:15 Factors Related to the Nephrotoxicity Produced by Certain Mycotoxins. W.O. Berndt and A.W. Hayes. Dept. Pharmacol. and Toxicol., Univ. Mississippi Medical Center, Jackson, MS

POSTER SESSION 1: Cardiovascular and Renal
Monday Morning, March 12, 1979
Exhibit Hall (East End)

Co-Chairpersons: J. J. Kocsis, Thomas Jefferson Univ., Philadelphia, PA
J. J. McPhillips, Astra Pharmaceutical Products, Framingham, MA

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<tr>
<th>Paper No.</th>
<th>Time (A.M.)</th>
<th>Title</th>
<th>Authors and Affiliations</th>
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<tr>
<td>36</td>
<td>8:30 - 10:30</td>
<td>Allylamine Inhibition of Monoamine Oxidase: Antagonism by Semicarbazide</td>
<td>T.J. Nelson and P.J. Boor, Dept. of Pathol., Univ. of Texas Medical Branch, Galveston, TX. Sponsor: M.T. Moslen</td>
</tr>
<tr>
<td>37</td>
<td></td>
<td>Pathophysiologic Profile of Acute Phencyclidine Lethality in the Conscious Dog</td>
<td>R.B. Hackett, I.W. Waters, K.W. Obrosky and R.F. Borne, Departments of Pharmacol. and Med. Chem., Sch. Pharmacy, Univ. of Mississippi, University, MS. Sponsor: W.M. Davis</td>
</tr>
<tr>
<td>38</td>
<td></td>
<td>Acetaminophen (APAP) - Induced Glutathione Depletion in the Isolated Perfused Kidney (IPK)</td>
<td>J.F. Newton, W.M. Kluwe and J.B. Hoek. The Toxicology Program and Dept. of Pharmacol. &amp; Tox., Michigan State Univ., East Lansing, MI</td>
</tr>
<tr>
<td>39</td>
<td></td>
<td>The Comparative Nephrotoxicity of Aminoglycoside Antibiotics in the Rat</td>
<td>J.S. Wold, D.O. Robbins, C.L. Gries, B.L. Miller and S.A. Turnipseed. Toxicology Div., Lilly Research Laboratories, Greenfield, IN</td>
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<tr>
<td>40</td>
<td></td>
<td>Renal Functional Changes Associated With the Nephrotoxicity of Cis-Dichlorodiammineplatinum (CDDP)</td>
<td>R.S. Goldstein, B. Noordewier, J.T. Bond, J.B. Hook and G.H. Mayor. The Toxicol. Program, Dep'ts. of</td>
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</table>
The Toxic Effects of Hexachlorobutadiene on the Rat Kidney. E.A. Lock and J. Ishmael, Imperial Chemical Industries Ltd., Central Toxicology Lab., Alderley Park, Nr. Macclesfield, Cheshire, SK10 4TJ, UK. Sponsor: M.S. Rose

Cardiovascular Toxicity of BHT (Butylated Hydroxytoluene) and BHA (Butylated Hydroxyanisole) - S.C. Gad, B.H. Chin, J.A. McKelvey, D.A. Acosta and S.W. Leslie. Chem. Hygiene Fellowship, Carnegie-Mellon Inst. Research, Pittsburgh, PA and Univ. of Texas Austin, TX. Sponsor: C.S. Weil

Biphasic Response of Renal 5'Phosphodiesterase Following Folic Acid Administration in the Rat. R.R. Gaddis and R.T. Louis-Ferdinand. College of Pharmacy and Allied Health Professions, Wayne State Univ., Detroit, MI

A Comparative Study of the Effects of Three Halogenated Methanes on Cardiovascular Dynamics and Myocardial Energy Metabolism. R.N. Terpolilli, R.A. Davis, and K.C. Back. Toxic Hazards Division, 6570th Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, OH

POSTER SESSION 2: Environmental and Industrial I
Monday Morning, March 12, 1979
Exhibit Hall (East End)

Co-Chairpersons: J. J. Kocsis, Thomas Jefferson Univ., Philadelphia, PA
J. J. McPhillips, Astra Pharmaceutical Products, Framingham, MA

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<tr>
<td>47</td>
<td></td>
<td>Some Non &quot;Priority Pollutants&quot; Commonly Found in Industrial Effluents.</td>
<td>S.M. Somani, R.G. Teece, and D. Schaeffer.</td>
<td>School of Medicine, Southern Illinois Univ., and Illinois Environmental Protection Agency, Springfield, IL</td>
</tr>
</tbody>
</table>

49 Effect of 3- or 6-Month Inhalation of 1,2-Dibromomethane in Rats Treated With Disulfiram. J.M. Winston, C.B. Hong, C.C. Lee, and L.C.K. Wong, Pharmacol. & Tox., Midwest Research Institute, Kansas City, MO

50 Acute and Subchronic Toxicity of Solvent Refined Coal-Related Hydrocarbons. D.D. Mahlum and F.D. Andrew, Biology Department, Battelle Pacific Northwest Laboratory, Richland, WA.

51 Comparative Mutagenesis of Solvent Refined Coal and Shale Oil Samples From Pilot Plant Operations. R.A. Pelroy and M.R. Peterson, Biology Department, Battelle Pacific Northwest Laboratory, Richland, WA. Sponsor: D.D. Mahlum


55 Fate of N-Butanol in Rats After Oral Administration and Its Uptake by Dogs After Inhalation or Skin Application. G.D. DiVincenzo and M.L. Hamilton. Health, Safety & Human Factors Laboratory, Eastman Kodak Co., Rochester, NY.


Diethanolamine Induced Changes in the Neonatal Rat. G.A. Burdock and L.W. Masten. Dept. of Pharmacol., Sch. of Pharmacy, Univ. of Mississippi, University, MS. Sponsor: W.M. Davis


POSTER SESSION 3: Reproduction and Development I
Monday Morning, March 12, 1979
Exhibit Hall (East End)


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<th>Paper No.</th>
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<th>Authors</th>
<th>Institution</th>
<th>Sponsor</th>
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<tr>
<td>63</td>
<td>8:30-10:30</td>
<td>Teratogenicity of Diphenylhydantoin in New Zealand White Rabbits</td>
<td>R. M. McClain and L. Langhoff, Dept. of Tox., Hoffmann-La Roche Inc., Nutley, New Jersey</td>
<td>E. A. Pfitzer</td>
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<td>65</td>
<td></td>
<td>Effects of Monoethylhexyl Phthalate (MEHP) on Pregnant Rabbits and Their Offspring</td>
<td>J. A. Thomas, P. R. Felice, L. G. Schein, P. K. Gupta and R. E. McCafferty, West Virginia Univ. Medical Center, Morgantown, WV</td>
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<td>67</td>
<td></td>
<td>Teratogenicity Evaluation of Commercial Formulation of Dimethoate (Cygon 4E) in the Cat and Rat</td>
<td>K. S. Khera, New Research Centre, National Health and Welfare, Tunney’s Pasture, Ottawa, Canada</td>
<td></td>
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</tbody>
</table>
A Correlation Between Elevated Amniotic Fluid Osmolality and the Developmental Toxicity of Trypan Blue. J. Rogers, Dept. of Biology, Univ. of Miami, Coral Gables, FL. Sponsor: J. Radomski.


Reversal of Streptomycin-Induced Dyskinesia in Rats by Dopaminergic Agonists. F. R. Allewa, T. Balazs, S. O. Morris, W. R. Crowley, T. L. O'Donohue, and D. M. Jacobowitz, Bureau of Drugs, FDA, Washington, DC and Laboratory of Clinical Science, NIMH, Bethesda, MD.


Craniofacial Teratogenicity of an Experimental Anti-allergy Agent. F. Martz, L. Arslanoglou, and R. D. Hemm, Toxicology Section, Ayerst Research Laboratories, Chazy, NY.


PLATFORM SESSION 4: General Toxicology I
Monday Afternoon, March 12, 1979
Mardi Gras Ballroom E, F, G, H
Co-Chairpersons: R. C. Schnell, Purdue Univ., West Lafayette, IN
D. B. Menzell, Duke Univ. Med. Center, Durham, NC

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<th>Paper No.</th>
<th>Time (P.M.)</th>
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<tr>
<td>77</td>
<td>2:00</td>
<td>Effects of N-(Phosphonomethyl)Glycine on Some Energy-Linked Functions of Rat Liver Mitochondria. O. O. Olorunsogo, E. A. Bababunmi, and O. Bassir, Dept. of Biochemistry, Univ. of Ibadan, Ibadan, Nigeria.</td>
</tr>
</tbody>
</table>


2:45 The Kinetics and Effects of Chlorine Dioxide in Drinking Water on Rat and Chicken Blood. M. S. Abdel-Rahman and D. Couri. Ohio State Univ. Toxicology, Columbus, OH.


3:15 Break - 15 Minutes


4:00 The Effect of the Acidic and Basic Fractions of Marihuana Whole Smoke Condensate on THC-Induced Hypothermia in Mice. J. M. Johnson, L. Lemberger, W. S. Dalton, and R. B. Forney, Dept. of Pharmacol. and Tox., Indiana Univ. Sch. of Med. and Lilly Research Laboratories, Indianapolis, IN.


4:30 Comparative Toxicology of Butyl Nitrites in Mice. D. P. McFadden and R. P. Maickel, Dept. of Pharmacol. & Tox., Purdue Univ., West Lafayette, IN.

4:45 Acute and Subchronic Toxicity of Alpha-Picoline in Rats. P. G. Watanabe, R. J. Kociba, D. G. Keyes, R. M. Carreon and H. O. Yakel, Health and Environmental Research, Dow Chemical Company, Midland, MI.
PLATFORM SESSION 5: Mutagenesis I
Monday Afternoon, March 12, 1979
Mardi Gras Ballroom A, B, C, D
Co-Chairpersons: S. D. Cohen, Univ. of Connecticut, Storrs, CT
E. D. Gralla, Chemical Ind. Inst. Toxicology,
Research Triangle Park, NC

Paper No.  Time (P.M.)
89  1:45 Characterization of Ames Mutagen Assay Using Aflatoxin B₁ as a Model Carcinogen. Cheng-I Wei and D. P. H. Hsieh, Dept. of Environ. Tox., Univ. of California, Davis, CA.
91  2:15 Mutagenicity of 1,2-Dibromo-3-Chloropropane (DBCP): In Vivo Cytogenetics Study in the Rat. R. W. Kapp, Jr., Hazleton Lab. America, Inc., Vienna, VA. Sponsor: M. Steinberg.
93  2:45 Mutagenicity of Halogenated and Oxygenated 3-Carbon Compounds. S. J. Stolzenberg and C. H. Hine, Dept. of Pharmacol., Univ. of California, School of Medicine, San Francisco, CA.

3:00 Break - 15 Minutes
94  3:15 Mutagenicity Studies of Flavonoids In Vivo and In Vitro. J. T. MacGregor, USDA, Western Regional Research Center, Berkeley, CA.
95  3:30 Mutagenesis of 2-Nitrofluorene (NF), 2-Nitrosofluorene (NOF) and 2-Hydroxylaminofluorene (NHOF) for Salmonella TA 100 and TA 100 FR. L. S. Andrews, L. R. Pohl, J. A. Hinson and J. R. Gillette, Lab. Chem. Pharm., NHLBI, Bethesda, MD
<table>
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<tr>
<th>Paper No.</th>
<th>Time (P.M.)</th>
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<tbody>
<tr>
<td>102</td>
<td>2:00</td>
<td>Effects of d-Amphetamine and Parquat on Single Spatial Alternation Performance</td>
<td>J. A. Dougherty and W. J. Brock, Graduate Center for Tox., Univ. of Kentucky, Lexington, KY.</td>
</tr>
<tr>
<td>103</td>
<td>2:15</td>
<td>Pharmacokinetics and Behavioral Effects of Cocaine in the Horse</td>
<td>T. Shults, J. Combie, J. Dougherty, and T. Tobin, Graduate Center for Tox., Univ. of Kentucky, Lexington, KY.</td>
</tr>
<tr>
<td>104</td>
<td>2:30</td>
<td>Necrosis Produced in Fetal Mouse Brain by Transplacental Exposure to the Mycotoxin, Ochratoxin A</td>
<td>G. M. Szczech and R. D. Hood, The Upjohn Co., Kalamazoo, MI and The University of Alabama, Tuscaloosa, AL.</td>
</tr>
<tr>
<td>105</td>
<td>2:45</td>
<td>Protective Effects of Atropine and/or Morphine Against the Lethality Due to dl-Muscarine and Furan Analogs of Muscarine</td>
<td>O. S. Tayeb and B. V. R. Sastry, Dept. of Pharmacol., Vanderbilt Univ. Sch. Med., Nashville, TN.</td>
</tr>
</tbody>
</table>
POSTER SESSION 4: Inhalation Toxicology II
Monday Afternoon, March 12, 1979
Exhibit Hall (East End)

Co-Chairpersons: J. J. Kocsis, Thomas Jefferson Univ.,
Philadelphia, PA; J. J. McPhillips, Astra Pharmaceutical Products,
Framingham, MA

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<th>Paper No.</th>
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<tr>
<td>111</td>
<td>1:30-3:30</td>
<td>Simulation Studies of Blood Carboxyhemoglobin Levels Associated with Inhalation Exposure to Methylene Chloride. C. L. Hake, Dept. of Env. Med., Medical College of Wisconsin, Milwaukee, WI.</td>
</tr>
<tr>
<td>114</td>
<td>1:30-3:30</td>
<td>Pulmonary Mechanics in Unanesthetized Guinea Pigs After Acute Exposure to Plastics Combustion Products. W. Skornik, R. Heimann and R. J. Jaeger, Harvard School of Public Health, Boston, MA.</td>
</tr>
<tr>
<td>115</td>
<td>1:30-3:30</td>
<td>Biochemical Changes in Guinea Pig Lungs Following Exposure to Plastics Combustion Products, Paraoquat, or Antu. R. Heimann, W. Skornik, and R. J. Jaeger, Harvard School of Public Health, Boston, MA.</td>
</tr>
</tbody>
</table>
Accumulation of Paraquat and Diquat by Cultured Type II Pneumocytes. K. Saito, W. B. Parker, and D. B. Menzel. Dept. of Pharmacol. and Med., Duke Univ. Medical Center, Durham, NC.


Peracute Toxicity of Paraquat and Diquat in 100% Oxygen. J. P. Kehrer, Univ. of Tenn-Oak Ridge Graduate School of Biomedical Sci. W. Haschek and H. P. Witschi, Biology Division, Oak Ridge National Laboratory, Oak Ridge, TN.

Oxygen Toxicity in the Rat: Correlation Between Age-Dependent Histochemical Findings and Enzyme Induction. J. B. Stevens and A. P. Autor. The Toxicology Center, Dept. of Pharmacol., Univ. of Iowa, Iowa City, IA.


Identification of Two Forms of Fluoride in Plasma of Rats Inhaling Hydrogen Fluoride. J. B. Morris and F. A. Smith. School of Medicine and Dentistry, Univ. of Rochester, Rochester, NY.


Endobronchial Lavage Fluid as an Indicator of Acute Lung Damage: Effect of Species, Age and Method of

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<td>Industrial College, Holly Springs, MS and Depts. Surgery &amp; Neurology, Univ. Mississippi Medical</td>
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<td>Center, Jackson, MS.</td>
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<tr>
<td>137</td>
<td></td>
<td>Effects of Cadmium on Hepatic Microsomal Cytochrome P-450 Content</td>
<td>D. H. Pence and R. C. Schnell, Hazleton Labs America, Vienna, VA, and School of Pharmacy, Purdue</td>
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<td></td>
<td></td>
<td>and Substrate Spectral Binding in Male and Female Rats.</td>
<td>University, W. Lafayette, IN.</td>
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<td>138</td>
<td></td>
<td>Biliary Excretion of Cadmium and Intracellular Metal Binding</td>
<td>M. G. Cherian, Dept. of Pathology, Univ. of Western Ontario, London, Ontario, Canada.</td>
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<td>Ligands.</td>
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<td>139</td>
<td></td>
<td>The Effects of Heavy Metals (HMs) on the Alveolar Macrophage (AM).</td>
<td>M. J. Reasor and P. R. Miles, West Virginia Univ. Medical Center and ALOSH/NIOSH, Morgantown, WV.</td>
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<td>In Vitro.</td>
<td>Sponsor: J. U. Bell.</td>
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<td>Woolley.</td>
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<td>141</td>
<td></td>
<td>Effect of Age and Dose on Lead Retention.</td>
<td>C. A. Keller, R. A. Doherty, A. H. Gates, Environ. Health Sciences Center, Univ. of Rochester,</td>
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<td>Medical Center, Nashville, TN.</td>
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<td>143</td>
<td></td>
<td>Long Term Behavioral Effects Resulting from Gestational Exposure</td>
<td>L. Hastings, H. Choudhury, G. P. Cooper, Dept. of Env. Hlth., Univ. of Cincinnati, Cincinnati,</td>
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<td>to Cd.</td>
<td>OH.</td>
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<td>144</td>
<td></td>
<td>Alteration of Mammalian Uroporphyrinogen Decarboxylase (UD) by</td>
<td>R. Kardish, B. A. Fowler and J. S. Woods. NICHS, NIH, Research Triangle Park, NC.</td>
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<td></td>
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<td>Heavy Metals.</td>
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<td>145</td>
<td></td>
<td>Perinatal Development of Hepatic Metallothionein in the Rat.</td>
<td>J. U. Bell, Medical Center, West Virginia Univ., Morgantown, WV.</td>
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<td>146</td>
<td></td>
<td>Fetal to Maternal Cadmium Movements Across the Perfused Hemochorial</td>
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<td>Placenta of the Guinea Pig.</td>
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*SYMPOSIUM: Aquatic Toxicology
Tuesday Morning, March 13, 1979
Grand Ballroom (Carondelet)
Co-Chairpersons: M. W. Anders, Univ. of Minnesota, Minneapolis, MN; J. L. Laseter, Univ. of New Orleans, New Orleans, LA

8:30 a.m. M. W. Anders, Univ. of Minnesota, Minneapolis, MN Introduction.

8:35 a.m. J. L. Laseter, Univ. of New Orleans, New Orleans, LA Contamination of the Aquatic Environment.

9:05 a.m. J. J. Lech, Medical College of Wisconsin, Milwaukee, WI. Metabolism and Disposition of Xenobiotics in Fish.
10:05 a.m. Questions/Break
10:30 a.m. D. R. Branson, Dow Chemical Company, Midland, MI Hazard Assessment of Chemicals in the Aquatic Environment.
11:00 a.m. J. F. Stara, Environmental Protection Agency, Cincinnati, OH Human Health Hazards Associated with Chemical Contamination of the Aquatic Environment.
11:30 Kenneth J. Macak, E. G. & G., Biomics, Wareham, MA Aquatic Toxicology: Fact or Fiction?

*Jointly with Toxicology Study Section, Division of Research Grants, National Institute of Health.

PLATFORM SESSION 7: Inhalation Toxicology III
Tuesday Morning, March 13, 1979
Mardi Gras Ballroom A, B, C, D
Co-Chairpersons: P. E. Morrow, Univ. of Rochester Med. Center, Rochester, NY; R. S. Chhabra, NIEHS, Research Triangle Park, NC

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<tr>
<td>155</td>
<td>8:30</td>
<td>Chlorphentermine Uptake by Isolated Perfused Rabbit Lung. L. S. Angevine and H. M. Mehendale, Dept. of Pharmacol. and Tox., Univ. of Mississippi Medical Center, Jackson, MS.</td>
</tr>
<tr>
<td>156</td>
<td>8:45</td>
<td>Sequential Exposure to Oxygen and Chlorphentermine: Metabolic and Ultrastructural Consequences. S. Kacew and R. Narbaitz, Dept. of Pharmacol. and Anat., Univ. of Ottawa, Ont., Canada.</td>
</tr>
<tr>
<td>160</td>
<td>9:45</td>
<td>Detection of a Lipophilic Antioxidant Factor in Lung Microsomes. D. J. Kornbrust and R. D. Mavis. Univ. of</td>
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**Platform Session 8: Immunotoxicology**

**Tuesday Morning, March 13, 1979**

Mardi Gras Ballroom E, F, G, H

**Co-Chairpersons: S. D. Aust, Michigan State Univ., East Lansing, MI; R. P. Sharma, Utah State Univ., Logan, UT**

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<tr>
<td>169</td>
<td>8:45</td>
<td>Toluene Di-Isocyanate (TDI) and p,p-Di-Phenyl Methane Di-Isocyanate (MDI) on Guinea Pig Respiratory Smooth Muscle</td>
<td>J. E. Doe and Gillian M. Horspool, ICI, CTL, Alderley Park, Macclesfield, Cheshire, UK. Sponsor: I. F. H. Purchase</td>
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</table>
PLATFORM SESSION 9: Metabolism II

Tuesday Morning, March 13, 1979

Grand Ballroom (Acadia)

Co-Chairpersons: J. S. Woods, Battelle Human Affairs Research Centers, Seattle, WA: M. A. Evans, Univ. Illinois Medical Center, Chicago, IL

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<th>Paper No.</th>
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<tr>
<td>178</td>
<td>8:30</td>
<td>Species Differences Between Rats and Mice on the Metabolism and Hepatic Macromolecular Binding of Tetrachloroethylene. A. M. Schumann, P. G. Watanabe, Dow Chemical Co., Health and Envir. Research, Midland, MI.</td>
</tr>
</tbody>
</table>
Covalent Binding of Halogenated Volatile Solvents to Subcellular Macromolecules in Hepatocytes. M. L. Cunningham, A. J. Gandolfi, K. Brendel, and I. G. Sipes, Univ. of Arizona, Health Sciences Center, Tucson, AZ.

Effect of Substituents on in vitro Metabolism and Covalent Binding of Substituted Bromobenzenes. R. A. Wiley, R. P. Hanzlik, and T. Gillesse, Dept. of Medicinal Chemistry, The Univ. of Kansas, Lawrence, KS.


Decreased Inductive Response of Microsomal Enzymes to Phenobarbital (PB) in Genetically Obese Rats. C. L. Litterst, Lab. Toxicol., National Cancer Inst., Bethesda, MD.

Break - 15 Minutes


Allylamine Cardiotoxicity and Cardiac MAO: Modulation by MAO Inhibitors. P. J. Boor and T. J. Nelson, Dept. of Pathol., Univ. of Texas Medical Branch, Galveston, TX. Sponsor: M. T. Moslen.

Transport of Bis-(p-Chlorophenyl)-Acetic Acid (DDA) in the Isolated, Perfused Rat Kidney. F. J. Koschier, M. F. Stokols, P. Catral, M. Acera and S. K. Hong. School of Medicine, State Univ. of New York at Buffalo, Buffalo, NY.

### POSTER SESSION 6: General Toxicology II

**Tuesday Morning, March 13, 1979**

**Exhibit Hall (East End)**


<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (A.M.)</th>
<th>Title</th>
<th>Sponsor</th>
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<tbody>
<tr>
<td>190</td>
<td>8:30-10:30</td>
<td>Preclinical Toxicology of ((\beta\beta)-8-[(\text{Methylthio})\text{Methyl}]-6-\text{Propyl}lergoline \text{Methanesulfonic Acid Salt (MPE)} - A New Prolactin Inhibitor. N. V. Owen, B. H. Arthur, W. R. Gibson, D. G. Hoffman, and D. M. Morton, Lilly Research Laboratories, Eli Lilly and Company, Greenfield, IN.</td>
<td></td>
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<tr>
<td>192</td>
<td></td>
<td>Enhancement of Hexobarbital Hypnosis by Diphenhydramine Methylammonium Bromide and Diphenhydramine R. T. Louis-Ferdinand, F. Beuthin, E. Roginski and M. Stout, <em>College of Pharmacy and Allied Health Professions, Wayne State University, Detroit, MI.</em></td>
<td></td>
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<tr>
<td>194</td>
<td></td>
<td>Light Microscopic and Ultrastructural Changes in Mouse Liver After Repeated Oral LAAM Administration. R. S. Nair, I. T. McClurkin, and L. W. Masten, <em>Dept. of Pharmacol. and Biol., Univ. of Mississippi, University, MS.</em> Sponsor: W. M. Davis.</td>
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</table>


The Toxicology Data Bank - Evaluation of Data for an On-Line Data Retrieval Service. H. M. Kissman, National Library of Medicine, Bethesda, MD.

A Data Acquisition System for Toxicology Laboratories. R. Kahlow and L. Parker, Hazelton Laboratories America, Inc., Vienna, VA. Sponsor: M. Steinberg.

A New Approach to an Old Method - A Basic Program for the Calculation of the ED\textsubscript{50} or LD\textsubscript{50} Using Probit Analysis. J. D. O'Neil, D. J. Brown, and R. B. Forney, Dept. of Pharmacol. and Tox., Indiana Univ. School of Medicine, Indianapolis, IN.


Receptor Supersensitivity in the Dam and Adrenergic Preponderance in the Progeny After Treatment with Atropine in Pregnant Rats. Y. F. Grunfeld and T. Balazs, Bureau of Drugs, FDA. Washington, DC.
PLENARY SESSION: ARIAS on TOSCA
Tuesday Afternoon, March 13, 1979
1:30-3:00 P.M.
Grand Ballroom (Carondelet)

A panel production of the Toxic Substances Control Act, with varying themes that present harmonies and discords, strengths and weaknesses. Audience participation obligato.

**Moderator:** M. M. Joselow
College of Medicine and Dentistry of New Jersey
Newark, NJ.

**The Cast**


Current Status and Issues in TOSCA Implementation

Peter Preuss, New Jersey Department of Environmental Protection, Trenton, NJ.

Federal-State Interaction

Robert A. Scala, Exxon Corporation, Linden, NJ.

Approaches by Industry to Toxic Substances Control

Sheldon Samuels, Industrial Union Department, AFL-CIO, Washington, DC.

Regulatory Options in Toxic Substances Control

Morton Corn, University of Pittsburgh,
School of Public Health, Pittsburgh, PA.

TOSCA - Only part of the Total Management of Toxic Substances

David Comey, Citizens for a Better Environment
Chicago, IL.

The Cost of Not Testing New Chemicals
PLATEFORM SESSION 10: Halogenated Hydrocarbons I  
Wednesday Morning, March 14, 1979  
Mardi Gras Ballroom A, B, C, D  
Co-Chairpersons: F. A. Smith, Univ. of Rochester Med. School, 
Boston, MA

<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (A.M.)</th>
<th>Title</th>
<th>Authors/Institutions</th>
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<tbody>
<tr>
<td>209</td>
<td>8:30</td>
<td>Exposure of Mice to CH₂Cl₂ and CH₃OH Alone and in Combination</td>
<td>J. B. Scott, F. A. Smith, R. H. Germain. Dept. Rad. Biol. and Biophys. Univ. of Rochester Sch. of Med. and Dent., Rochester, NY.</td>
</tr>
<tr>
<td>210</td>
<td>8:45</td>
<td>Glutathione, Epoxides and Multiple Detoxification Pathways in the Metabolism of 1,1-Dichloroethylene. M. Andersen, O. Thomas and L. Jenkins, NMRI/TD, Wright-Patterson AFB, OH.</td>
<td></td>
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<tr>
<td>211</td>
<td>9:00</td>
<td>Inferences Concerning Metabolism of Inhaled Toxicants Based on Rates of Toxicant Depletion from Recirculated Atmospheres. M. E. Andersen, M. L. Gargas and L. J. Jenkins, Jr., NMRI/TD, Wright-Patterson AFB, OH.</td>
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</tr>
<tr>
<td>212</td>
<td>9:15</td>
<td>Potentiation of Carbon Tetrachloride-Induced Hepatotoxicity by 1,3-Butanediol. G. L. Plaa, W. R. Hewitt, and M. G. Coté. Dépt. de Pharmacol., Univ. de Montréal, Montréal, Canada.</td>
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<td>10:15</td>
<td>Break - 15 Minutes</td>
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<tr>
<td>216</td>
<td>10:30</td>
<td>Toxicology of 2-Chloro-1,3-Butadiene (Chloroprene): Acute Effects in Liver and Lung After Inhalation Exposure in Rats H. Plugee and R. J. Jaeger, Harvard School of Public Health, Boston, MA.</td>
<td></td>
</tr>
<tr>
<td>218</td>
<td>11:00</td>
<td>Protective Effects of (+)-Cyanidanol-3 Against CCl₄-Induced Hepatotoxicity. H. Kappus and J. Zentner,</td>
<td></td>
</tr>
</tbody>
</table>
**PLATFORM SESSION 11: Metals II**

Wednesday Morning, March 14, 1979

Mardi Gras Ballroom E, F, G, H

*Co-Chairpersons: B. A. Fowler, NIEHS, Research Triangle Park, NC
C. M. Cherian, Univ. Western Ontario, London, Ont., Canada*

<table>
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<th>Paper No.</th>
<th>Time (A.M.)</th>
<th>Title and Authors</th>
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<tr>
<td>221</td>
<td>8:45</td>
<td>Dose-Related Distribution of Vanadium in Rat Tissues. R. P. Sharma, S. G. Oberg, and R. D. R. Parker, Toxicology Program, Utah State Univ., Logan, UT.</td>
</tr>
<tr>
<td>222</td>
<td>9:00</td>
<td>Time- and Dose-Dependent Distribution of Vanadium in Mouse Tissues: R. D. R. Parker, R. P. Sharma, and S. G. Oberg, Toxicology Program, Utah State Univ., Logan, UT.</td>
</tr>
<tr>
<td>224</td>
<td>9:30</td>
<td>Effective Concentrations of Mercurials in Enzyme Inhibition G. G. Berg, Dept. of Rad. Biol. Biophys. and Env. Health Science Center, Univ. of Rochester, Sch. of Medicine, Rochester, NY.</td>
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<td>10:15</td>
<td>Break - 15 Minutes</td>
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<td>Paper No.</td>
<td>Time (A.M.)</td>
<td>Title</td>
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<tr>
<td>230</td>
<td>11:15</td>
<td>Isolation and Characterization of Liver Metallothionein in Newborn Rats</td>
</tr>
<tr>
<td>232</td>
<td>11:45</td>
<td>Age Differences in Mouse Methylmercury (MeHg) Retention and Demethylation</td>
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**PLATFORM SESSION 12: Reproduction and Development II**

Wednesday Morning, March 14, 1979
Grand Ballroom (Acadia)

*Co-Chairpersons: J. Spyker Cranmer, Univ. Arkansas Med. Sciences, Little Rock, AR; K. S. Khera, Bureau Chemical Safety, Ottawa, Ont., Canada*

<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (A.M.)</th>
<th>Title</th>
<th>Authors</th>
<th>Sponsor</th>
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<tbody>
<tr>
<td>234</td>
<td>8:45</td>
<td>Effects of Prenatal Exposure to Chlorpromazine on Postnatal Development and Behavior of Rats.</td>
<td>R. Robertson, J. Majka, D. Bokelman, Merck Sharp &amp; Dohme Res. Labs, West Point, PA.</td>
<td></td>
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<tr>
<td>236</td>
<td>9:15</td>
<td>Prenatal Detection of Cardiac Pathology in Mirex-Fed Rats Using Fetal Electrocardiography.</td>
<td>C. T. Grabowski, Dept. of Biology, Univ. of Miami, Coral Gables, FL.</td>
<td>J. Radomski.</td>
</tr>
</tbody>
</table>

Studies on the Mechanism of Neonatal Toxicity in Rats Induced by Nabilone, a Synthetic 9-Ketocannabinoid. C. L. Moss, J. K. Markham, G. K. Hanasono, Tox. Div., Lilly Research Laboratories, Greenfield, IN. Sponsor: J. S. Woid

Break - 15 Minutes


Pathogenesis of Inhaled 1,2-Dibromo-3-Chloropropane (DBCP) Induced Testicular Atrophy in Rats and Rabbits. J. D. Burek, F. J. Murray, K. S. Rao, A. A. Crawford, J. S. Beyer, R. R. Albee and B. A. Schwetz, Tox. Research Laboratory, Dow Chemical U.S.A., Midland, MI.


Some Effects of Short-Term Chronic Feeding of Caffeine to Rats. L. Friedman, M. S. Weinberger, T. M. Farber, F. M. Moreland, M. A. Kahn, J. E. Keys, and C. S. Stone, Bureau of Foods, FDA, Washington, DC.

Unusual Expression of Teratogenicity in the Rat. J. L. Schardein and J. A. Petrere, Dept. of Tox., Warner-Lambert/Parke-Davis, Ann Arbor, MI.

Teratogenicity of Pyrimethamine. S. Schvartsman, Instituto da Crianca Hospital das Clinicas, School of Medicine Sao Paulo, Brazil.

**POSTER SESSION 7: General Toxicology III**

Wednesday Morning, March 14, 1979

Exhibit Hall (East End)


<table>
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<tr>
<th>Paper No.</th>
<th>Time (A.M.)</th>
<th>Title</th>
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</table>
Effects of High Levels of Dietary Vitamin A on Drug Metabolism in Guinea Pig and Rabbit. R. S. Chhabra and C. L. Miranda, Lab. of Pharmacol., National Inst. of Environ. Health Sciences, Research Triangle Park, NC.


Effects of Dietary Di(2-Ethylhexyl)Phthalate (DEHP), and its Primary Metabolites, Mono(2-Ethylhexyl) Phthalate (MEHP) and 2-Ethyl Hexanol (2-EH) on Hepatic Lipid Metabolism. S. J. Morton and R. J. Rubin, Johns Hopkins Univ., Sch. of Hyg. & Pub. Hlth., Baltimore, MD.


The Role of Microsomal Mixed Function Oxidase Systems in Hepatic Toxicity of Cocaine. M. A. Evans, Dept. of Pharmacol., Univ. of Illinois Medical Center, Chicago, IL.


Effects of Ethylaminoethanol on Phospholipid Metabolism and Hepatic Microsomal Enzyme Activity. A. C. Stevens and R. Hartung, Sch. of Pub. Hlth., Univ. of Michigan, Ann Arbor, MI.

A Comparative Study of the Patterns of Distribution and Excretion of Acrylamide Monomer in Beagle Dogs and Miniature Swine. G. J. Ikeda, E. Miller, P. P. Sapienza, T. C. Michel, and P. B. Inskeep, Metabolism Branch, FDA, Washington, DC.

Predictive Value of Covalent Binding in Target Organ Toxicity: Age-Related Differences in Target Organ Alkylation and Toxicity by 4-Ipomeanol. R. Jones, C. Allegra, and M. Boyd. NIH, Bethesda, MD.

In Vitro Metabolic Activation of the Pulmonary Toxin, 4-Ipomeanol, by Lung Slices and Isolated Whole Lungs. N. Longo and M. Boyd, *NIH, Bethesda, MD*.


Eye Contamination: A Poison Center Protocol for Management. K. M. Rost, R. W. Jaeger, and F. J. deCastro, *Cardinal Glennon Hospital, St. Louis Poison Center, St. Louis, MO*.


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**POSTER SESSION 8: Mutagenesis II**

*Wednesday Morning, March 14, 1979*

Exhibit Hall (East End)


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<th>Paper No.</th>
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ISSUES SESSION

Mardi Gras Ballroom A, B, C, D
Wednesday, March 14, 1979
12 Noon - 1:15 P.M.

Bring a sandwich, etc. from the snack bar and participate in an open forum discussion of SOT affairs.

Chaired by President Leon Golberg

SYMPOSIUM*: Who Needs Toxicologists?

Wednesday Afternoon, March 14, 1979
1:30 - 5:00 P.M.

Grand Ballroom (Carondelet)

Chairperson: F.W. Oehme, Kansas State University, Manhattan, KS

1:30 - 1:45  Toxicology Is A Bastard! F.W. Oehme, Kansas State University, Manhattan, KS

1:45 - 2:15  Who Wants Toxicologists? M. Hite, Merck Institute for Therapeutic Research, West Point, PA

2:15 - 2:50  We Train Toxicologists For A Mission. C. Schonwalder, NIEHS, Research Triangle Park, NC

2:50 - 3:25  We Want To Train Toxicologists For A Need! C.L. Winek, Duquesne University, Pittsburgh, PA

3:25 - 4:00  We Must Keep Toxicology Current! J.E. Gibson, Chemical Industry Institute of Toxicology, Research Triangle Park, NC

4:00 - 4:25  Who Is A Toxicologist? C. Farlee, Office of Toxic Substances EPA, Washington, DC

4:25 - 5:00  Let's Standardize The Final Product! T.R. Tephly, The University of Iowa, Iowa City, IA

*Jointly with American Academy of Clinical Toxicology, American Association of Poison Control Centers, The American Board of Medical Toxicology, and The Canadian Academy of Clinical and Analytical Toxicology.
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<th>Paper No.</th>
<th>Time (P.M.)</th>
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<tbody>
<tr>
<td>269</td>
<td>1:30</td>
<td>A Comparison of Aryl Hydrocarbon Hydroxylase (AHH) Activity in Spontaneous and Chemically Induced Mouse Hepatic Nodules</td>
<td>E. M. Essigmann, R. G. McConnell and P. M. Newberne, <em>Dept. of Nutrition &amp; Food Science, MIT, Cambridge, MA</em></td>
</tr>
<tr>
<td>271</td>
<td>2:00</td>
<td>A Two-Year Chronic Toxicity and Oncogenic Study of 2,4,5-Trichlorophenoxyacetic Acid (2,4,5-T) in Rats</td>
<td>R. J. Kociba, D. G. Keyes, C. E. Wade, R. Kalnins, R. W. Liosowe and D. D. Dittenber, <em>Health &amp; Environmental Research, The Dow Chemical Company, Midland, MI.</em></td>
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<td>3:00</td>
<td>Break - 15 Minutes</td>
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<td>275</td>
<td>3:15</td>
<td>Formation and Fate of Nitrosamides in Animals</td>
<td>R. W. Rickard and H. W. Dorough, <em>Grad. Center for Tox., Univ. of Kentucky, Lexington, KY.</em></td>
</tr>
<tr>
<td>276</td>
<td>3:30</td>
<td>Quantitative Administration of Insecticide Vapors to Rats</td>
<td>W. A. Stubblefield and H. W. Dorough, <em>Grad. Center for Tox., Univ. of Kentucky, Lexington, KY.</em></td>
</tr>
<tr>
<td>277</td>
<td>3:45</td>
<td>Comparative Carbamate Ester Hydrolysis in Four Mammalian Species</td>
<td>W. H. Benson and H. W. Dorough, <em>Grad. Center for Tox., Univ. of Kentucky, Lexington, KY.</em></td>
</tr>
<tr>
<td>278</td>
<td>4:00</td>
<td>Postpartum CPK and LDH Cardiac and Serum Isozymes after 2,4,5-T, Carbaryl or Aniline Treatment</td>
<td>K. D. Courtney, <em>Environmental Protection Agency, Research Triangle Park, NC.</em></td>
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### PLATFORM SESSION 14: Drug Toxicology
Wednesday Afternoon, March 14, 1979
Mardi Gras Ballroom E, F, G, H
Co-Chairpersons: M. A. Friedman, Allied Chem. Co., Morristown, NJ; R. T. Louis-Ferdinand, Wayne State Univ., Detroit, MI

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<tr>
<td>285</td>
<td>2:30</td>
<td>Lethal Synergism of Cholinesterase Inhibitors by Lithium</td>
<td>N. Hatoum and W. M. Davis, Dept. of Pharmacol., Univ. of Mississippi. University, MS.</td>
</tr>
<tr>
<td>287</td>
<td>3:00</td>
<td>Rat Liver Microsomes Metabolize Pargyline to Propiolaldehyde, a Potent Irreversible Inhibitor of Aldehyde Dehydrogenase (A1DH)</td>
<td>F. N. Shirato, E. G. DeMaster and H. T. Nagasawa, Medical Research Laboratories, VA Hospital, Minneapolis, MN and Dept. of Medicinal Chemistry, Univ. of Minnesota, Minneapolis, MN.</td>
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<tr>
<td>Paper No.</td>
<td>Time (P.M.)</td>
<td>Title</td>
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<td></td>
<td>3:30</td>
<td>Break - 15 Minutes</td>
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<tr>
<td>291</td>
<td>4:15</td>
<td>Cinoxacin Induced Arthropathy in Juvenile Beagle Dogs L. C. Howard, D. C. VanSickle, K. Deshmukh, W. J. Griffing and N. V. Owen, Lilly Research Laboratories, Greenfield, IN and Dept. of Anatomy, Purdue Univ., West Lafayette, IN.</td>
<td></td>
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<tr>
<td>293</td>
<td>4:45</td>
<td>Sulphone Methemoglobinemia S. Schvartsman, Instituto da Crianca Hospital das Clinicas, School of Medicine, Sao Paulo, Brazil</td>
<td>Sponsor: F. W. Oehme.</td>
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**PLATFORM SESSION 15: Oncogenesis**

Wednesday Afternoon, March 14, 1979

Grand Ballroom (Acadia)


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<th>Paper No.</th>
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<th>Authors</th>
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<tr>
<td>294</td>
<td>1:30</td>
<td>Inhibition by Bran of the Colonic Cocarcinogenicity of Bile Salts in Rats Given Dimethylhydrazine. T. A. Barbolt, J. B. Rodgers, and R. Abraham, Inst. of Comparative and Human Toxicology and the Dept. of Medicine, Albany Medical College, Albany, NY.</td>
<td></td>
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<tr>
<td>295</td>
<td>1:45</td>
<td>Dose-Response, Sex Differences, and the Effect of Bran in Dimethylhydrazine-Induced Intestinal Tumorigenesis in Rats. T. A. Barbolt and R. Abraham, Inst. of Comparative and Human Toxicology, Albany Medical College, Albany, NY.</td>
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<tr>
<td>296</td>
<td>2:00</td>
<td>Sodium Nitrite Promotes Lymphoreticular Tumors. P. M. Newberne, Dept. Nutrition and Food Science, M.I.T., Cambridge, MA.</td>
<td></td>
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</table>
J. Gehring, P. G. Watanabe, and C. N. Park, Toxicology Research Laboratory, Dow Chemical Company, Midland, MI.


299 2:45 Carcinogenicity and Metabolism of 5-F-DMBA and its 7-Hydroxymethyl (5-F-7-HO-DMBA) and 7-Acetoxy-methyl (5-F-7-Ac-DMBA) Derivatives. M. Chien and J. W. Flesher, College of Medicine and the Graduate Center for Toxicology, Univ. of Kentucky, Lexington, KY. Sponsor: M. Vore.

3:00 Break - 15 Minutes


304 4:15 The Problem of Environmental Carcinogens in Tropical Africa. E. A. Bababunmi, Dept. of Biochemistry, Univ. of Ibadan, Ibadan, Nigeria.

POSTER SESSION 9: Halogenated Hydrocarbons II

Wednesday Afternoon, March 14, 1979

Exhibit Hall (East End)


Paper No. Time (P.M.)
305 1:30-3:30 Depression of ATPase Activity in Hepatocyte Surface Membranes of Rats by 2,3,7,8-Tetrachlorodibenzo-p-Dioxin Treatment. B. V. Madhukar, F. Matsumura, K. H. Yang and R. E. Peterson, Univ. of Wisconsin, Madison, WI.
306 Effects of 2,3,7,8-Tetrachlorodibenzo-p-Dioxin on Liver Function in Rats, Rabbits and Guinea Pigs. M. D. Seefeld, K. H. Yang and R. E. Peterson, School of Pharmacy, Univ. of Wisconsin, Madison, WI.

307 Pharmacokinetics of 1,2,4-Tribromobenzene and 1,2,4-Trichlorobenzene. E. N. Smith and G. P. Carlson, Sch. of Pharmacy and Pharmacal Sciences, Purdue Univ., West Lafayette, IN.

308 The Effect of Alcohols and Toluene Upon Methylene Chloride Induced Carboxyhemoglobin in the Rat and Monkey. H. P. Ciuchta, G. M. Savell and R. C. Spiker, Jr., Gillette Medical Evaluation Laboratories, Rockville, MD.


310 Excretion of Hexachlorobiphenyls and 2,4,5,2',4',5'-Hexabromobiphenyl in the Dog. L. G. Sipes, D. H. McKelvie, and R. Collins, Tox. Prog., Univ. of Arizona, Tucson, AZ.

311 The Role of 2-Butanone Metabolism in the Potentiation of CCl₄-Induced Hepatotoxicity. F. K. Dietz, G. J. Traiger and V. Stella. Sch. of Pharmacy, Univ. of Kansas, Lawrence, KS.

312 Potentiation of CHCl₃-Induced Hepato- and Nephrotoxicity by n-Hexane (H), Methyl n-Butyl Ketone (MBK), and 2,5-Hexanediol (HD). W. R. Hewitt, M. G. Coté, and G. L. Plaa, Dépt. de Pharmacol., Univ. de Montréal, Montréal, Canada.


316 Methanol Potentiation of Carbon Tetrachloride (CCl₄)-Induced Hepatotoxicity in Rats. L. R. Cantilena, Jr., S. Z. Cagen, and C. D. Klaassen. Dept. of Pharmacology, Univ. of Kansas Medical Center, Kansas City, KS.

317 Assessment of Tumor Initiating and Promoting Activity of a Mixture of Polybrominated Biphenyls (Firemaster BP-6), and Certain Purified Isomers of PBB. R. K. Haroz and S. D. Aust, Battelle Research
POSTER SESSION 10: Metabolism III  
Wednesday Afternoon, March 14, 1979
Exhibit Hall (East End)

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<tr>
<td>325</td>
<td></td>
<td>Elimination and Tissue Distribution of 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) in Female Guinea Pigs Following a Single Oral Dose.</td>
<td>R. J. Nolan, F. A.</td>
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</table>


A General Method for the In Vitro Production and Identification of N-Dealkylated Metabolites. J. Jernigan, D. Taber, and R. D. Harbison, Dept. of PharmacoL, Vanderbilt Medical Center, Nashville, TN.


Protection Against Alloxan-Induced Alterations in Hepatic Drug Metabolism and Plasma Glucose Levels in the Male Rat. G. W. Wolfe and R. C. Schnell, Dept. PCOL/TOX, School of Pharmacy, Purdue Univ., Lafayette, IN.


In Vitro Interactions of 1,2-Alkene Oxides with Epoxide Hydratase. J. G. Dent and S. Schnell, Chemical Industry Inst. of Toxicology, Research Triangle Park, NC. Sponsor: J. E. Gibson.

High Pressure Liquid Chromatography of 2,6- and 2,4-Toluenediamine (TDA) and its Application to the Analysis of 2,4 TDA in Urine and Plasma. P. D. Unger.
and M. A. Friedman, Dept. Biochemical Tox., Corporate Medical Affairs, Allied Chemical Corp., Morristown, NJ.

Metabolism of 2,4-Dinitrotoluene in Adult Rat Primary Hepatocyte Cultures. G. M. Decad, J. G. Dent, and D. E. Rickert, Chemical Industry Inst. of Toxicology, Research Triangle Park, NC. Sponsor: J. E. Gibson.


Effects of Metabolism on the Mutagenicity of the Nitronaphthalenes in Salmonella Typhimurium. C. Benkendorf, D. Johnson, and H. Cornish, Sch. of Pub. Hlth., Univ. of Michigan, Ann Arbor, MI.

Effect of Cobaltous Chloride Treatment on 2-Methylnaphthalene Disposition and Hepatic Cytochrome P-450 Content in Carp. P. D. Guiney, M. Dickins and R. E. Peterson, Univ. of Wisconsin, Madison, WI.

The Uptake, Elimination and Metabolism of 1,2,4-Trichlorobenzene in Rainbow Trout. M. J. Melancon Jr., D. R. Branson and J. J. Lech, Dept. of Pharmacol., Med. Col. of Wisconsin, Milwaukee, WI and Dow Chemical USA, Midland, MI.


PRE-BANQUET MIXER

Wednesday Evening, March 14, 1979
5:30 - 7:00 P.M.
Mardi Gras Ballroom

For all attendees and guests. Jointly with American Academy of Clinical Toxicology,
American Association of Poison Control Centers, American Board of Medical Technology,
and Canadian Academy of Clinical and Analytical Toxicology.

Cash Bar

ANNUAL BANQUET

Wednesday Evening, March 14, 1979
7:00 P.M.
Grand Ballroom

Open to all attendees and guests. Members and guests of American Academy of Clinical Toxicology,
American Association of Poison Control Centers, American Board of Medical Technology,
and Canadian Academy of Clinical and Analytical Toxicology are especially invited.

$16.00

Complimentary wine,
courtesy Charles River Breeding Laboratories, Inc.

SYMPOSIUM*:

Novel Analytical Support for Clinical Toxicology

Thursday Morning, March 15, 1979
8:00 A.M. - 12 Noon
Grand Ballroom (Carondelet)

Chairperson: R. B. Forney, Indiana Univ. School of Medicine,
Indianapolis, IN

8:00-8:55 Gas Chromatography-Mass Spectroscopy, R.G.
Finnigan, Finnigan Corp., Sunnyvale, CA

8:55-9:50 High Pressure Liquid Chromatography, A. Poklis,
Office of the Medical Examiner, Clayton, MO

Break — 20 Minutes

10:10-11:05 Non-Invasive Drug Analysis, K. M. Dubowski, Univ. of
Oklahoma, Oklahoma City, OK

11:05-12:00 New Applications of the EMIT Homogenous Enzyme
Immunoassays, D. S. Kabakoff, The Cyva Co., Palo Alto,
CA

*Jointly with American Academy of Clinical Toxicology, American Association of Poison
Control Centers, The American Board of Medical Toxicology, and The Canadian Academy
of Clinical and Analytical Toxicology.
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<tr>
<th>Paper No.</th>
<th>Time (A.M.)</th>
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<tbody>
<tr>
<td>346</td>
<td>8:30</td>
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<td></td>
<td>Mutagenic Activity in Agricultural Waste Smoke Condensate. H.E. Olsen, M.Y. Fukayama, C.I. Wei, and D.P.H. Hsieh. <em>Dept. of Environ. Tox.</em>, <em>Univ. of California, Davis, CA</em></td>
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<td>347</td>
<td>8:45</td>
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<td>348</td>
<td>9:00</td>
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<td>349</td>
<td>9:15</td>
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<td></td>
<td>Kepone: Cellular Sites of Action. E.L. Carmines, R.A. Carchman and J.F. Borzelleca, <em>Dept. of Pharmacol., Medical College of Virginia, Richmond, VA</em></td>
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<td>350</td>
<td>9:30</td>
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<td>351</td>
<td>9:45</td>
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<td>352</td>
<td>10:00</td>
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<td></td>
<td>Exhaled Mercury as an Index of Inorganic Hg Body Burden. J.D. Dunn, T.W. Clarkson and L. Magos, <em>Univ. Rochester, Sch. of Med. and Dent., NY</em>, and <em>Toxicology Unit, Medical Research Council, Carshalton, UK</em></td>
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<td>353</td>
<td>10:15</td>
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10:30 Break - 15 minutes

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<tbody>
<tr>
<td>355</td>
<td>11:00</td>
<td>Effect of Paraquat Treatment on Rat Kidney Basement Membranes.</td>
<td>R. Kuttan, R. Spall, I.G. Sipes, E. Meezan and K. Brendel, Dept. Pharmacol., AHSC, Univ. of Arizona, Tucson, AZ</td>
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<tr>
<td>356</td>
<td>11:15</td>
<td>Airborne Lead and Children - The Omaha Study.</td>
<td>C.R. Angle and M.S. McIntire, Dept. of Pediatrics, Univ. of Nebraska Coll of Med. and Creighton Univ. Sch. of Med., Omaha, NB. Sponsor: T.S. Miya</td>
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**PLATFORM SESSION 17: Halogenated Hydrocarbons III**

Thursday Morning, March 15, 1979
Mardi Gras Ballroom E, F, G, H

Co-Chairpersons: R.D. Kimbrough, Center for Disease Control, Atlanta, GA;
D.H. Norback, Univ. of Wisconsin, Madison, WI

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<tr>
<td>359</td>
<td>8:30</td>
<td>Toxicological Responses of Nonhuman Primates to 1, 2, 3, 6, 7, 8-Hexachlorodibenzo-p-Dioxin (HCDD).</td>
<td>J.R. Allen, J.P. Van Miller, D.A. Barsotti, and L.A. Carstens, Dept. of Path., Univ. of Wisconsin Medical School, and Regional Primate Res. Center, Madison, WI</td>
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<tr>
<td>360</td>
<td>8:45</td>
<td>Toxicological Effects Produced in Nonhuman Primates Chronically Exposed to Fifty Parts Per Trillion 2, 3, 7, 8-Tetrachlorodibenzo-p-Dioxin (TCDD).</td>
<td>S.L. Schantz, D.A. Barsotti and J.R. Allen, Dept. of Path., Univ. of Wisconsin Medical School, and Regional Primate Res. Center, Madison, WI</td>
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<tr>
<td>361</td>
<td>9:00</td>
<td>TCDD Contamination in Italy: The Risk Assessment of Low Level Exposure, Cumulative Effect and Long-Term Consequences.</td>
<td>G. Reggiani, Medical Research Board, F. Hoffmann-La Roche &amp; Co. Ltd., Basle, Switzerland</td>
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363 9:30 Hepatic Ultrastructural Changes of Rats Exposed to Polychlorinated Biphenyl Isomers. R.H. Weltman and D.H. Norback, Wm. S. Middleton VA Hospital and Univ. of Wisconsin, Madison, WI


365 10:00 Induction of Hepatic MFO Enzymes in Trout Fed PCB, Some Proposed PCB Replacements, and Related Compounds. R.F. Addison and F.C.P. Law; 1Marine Ecology Lab., P.O. Box 1005, Dartmouth, N.S., Canada, 2Coll. Pharmacy, Dalhousie Univ., Halifax, N.S. Canada. Sponsor: D.J. Ecobichon

366 10:15 The Effect of Different Diets or Mineral Oil on Liver Pathology, and PBB Concentrations in Blood, Liver and Adipose Tissue. R.D. Kimbrough, M.P. Korver, and V.W. Burse, Center for Disease Control, Atlanta, GA

10:30 Break - 15 minutes


369 11:15 Disposition of Tris-(1,3-Dichloro-2-Propyl)-Phosphate in the Rat. H.B. Matthews and M.W. Anderson, Laboratory of Pharmacokinetics, NIEHS, Research Triangle Park, NC

370 11:30 Interim Results of Two-Year Inhalation Toxicologic Studies of Methylene Chloride in Rats and Hamsters. L.W. Rampy, K.D. Nitschke, T.J. Bell and J.D. Burek, Dow Chemical, Health and Environ. Research, Midland, MI. Sponsor: P.J. Gehring
# PLATFORM SESSION 18:
Hepatic and Gastrointestinal

Thursday Morning, March 15, 1979
Grand Ballroom (Acadia)

**Co-Chairpersons:** G.C. Fuller, Univ. of Rhode Island, Kingston, RI; M. Vore, Univ. of California School of Medicine, San Francisco, CA

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<tr>
<td>371</td>
<td>8:30</td>
<td>Decreased Hepatobiliary Permeability Produced by Tauro-Lithocholate (TLC) Treatment of Rats.</td>
<td>J.M. Fujimoto, M.A. Jansen and J.R. Olson. Toxicology Research Laboratory, Wood VA Center, Wood, WI</td>
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<td>373</td>
<td>9:00</td>
<td>Biliary Excretory Dysfunction in the Rat Following Exposure to Photomirex.</td>
<td>L.R. Curtis and H.M. Mehendale, Dept. of Pharmacol. &amp; Tox., Univ. Mississippi Med. Ctr., Jackson, MS</td>
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<td>Paper Cancelled</td>
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<td>376</td>
<td>9:30</td>
<td>Comparisons in Hepatic Response to Mirex With CD-1 and B6C3F1 Mice.</td>
<td>B.A. Mayes and R. Abraham, Inst. of Comparative and Human Tox., Albany Medical College, Albany, NY</td>
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<td>10:15</td>
<td>Break - 15 minutes</td>
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380 10:45 Studies of Acute Hepatotoxicity of Styrene Oxide in Rats. S. Chakrabarti and J. Brodeur, Dept. de médecine du travail et d'hygiène du milieu, Faculté de Medecine, Universite de Montreal, Montreal, Quebec, Canada

381 11:00 Hepatotoxic Injury Induced by Styrene in Adult Male Rats. S. Chakrabarti and J. Brodeur, Dept. de médecine du travail et d'hygiène du milieu, Faculté de Medecine, Universite de Montreal, Montreal, Quebec, Canada


POSTER SESSION 11: Agricultural Chemicals II

Thursday Morning, March 15, 1979
Exhibit Hall (East End)
Chairpersons: J. J. Kocsis, Thomas Jefferson Univ.,
Philadelphia, PA; J. J. McPhillips, Astra Pharmaceutical Products,
Framingham, MA

Paper No. Time (A.M.)

384 Acute Toxicity of Pesticides in Hamsters. J.R.P. Cabral, F. Raitano, T. Mollner, S. Bronczyk and P. Shubik, Eppley Inst. for Research in Cancer, Univ. Nebraska Med. Center, Omaha, NE and Medical Research Council Toxicology Unit, Carshalton, England


387 Treatment of Mercury Poisoning Using Dimercaprol and Dialysis. D.W. Teat, E.J. Stramoski, and M.D. Ellis, Texas State Poison Center, Univ. of Texas Medical Branch, Galveston, TX., B.A. Bartholomew, R. Pietila, and G. Stanbaugh, Texas Tech School of Medicine, Lubbock, TX
POSTER SESSION 12: Nervous System II

Thursday Morning, March 15, 1979
Exhibit Hall (East End)


Paper No. Time (A.M.)

390 8:30 - 10:30


392 Inhibition of Axoplasmic Transport by Delayed Neurotoxic Organophosphorus Esters: A Possible Mode of Action. B. L. Reichert and M. B. Abou-Donia. Dept. of Pharmacol., Duke Univ. Medical Center, Durham, NC


394 Muscimol Antagonizes Methylhydrazine Induced Convulsions. R. A. Davis, M. E. George, K. C. Back, 6570th Aerospace Medical Research Lab., Wright-Patterson AFB, OH


396 Organophosphate Neurotoxicity: Neurotoxic Esterase in Human Nervous Tissue. M. Lotti and M. K. Johnson, Medical Research Council Toxicology Unit, Carshalton, Surrey, UK. Sponsor: M. S. Rose

Effects of DDT and Parathion on Goldfish Retina/ Pigment Epithelium/Choroid Concentrations of Serotonin, Dopamine and Norepinephrine. T.O. McDonald and M. Fingerman, Dept. of Biology, Tulane Univ., New Orleans, LA

Behavioral Effects of Embryonic X-irradiation of Rats. B.F. Schneider and S. Norton, Dept. of Pharmacol. Univ. of Kansas Medical Center, Kansas City, KS

Neurobehavioral Sequelae of Neonatal Lead Exposure in Rats. S. Overmann and D. Woolley, Univ. of California, Davis, CA


Pathology of Ethanol Addiction by Inhalation in Mice. D.G. Perkins and R.B. Forney, Dept. of Pharmacol. and Tox., Indiana Univ. School of Medicine, Indianapolis, IN


A Sensitive Radioenzymatic Assay for the Simultaneous Determination of Dopamine and Salsolinol. R.A. Dean, D.P. Henry, R.R. Bowsher and R.B. Forney. Dept. of Pharmacol. and Tox., Indiana Univ. School of Medicine Lilly Research Laboratories, Indianapolis, IN


Oral Chronic Toxicity of Methyl n-Propyl Ketone, Methyl n-Butyl Ketone and Hexane in Rats. W.J. Krasavage, J.L. O'Donoghue and C.J. Terhaar, *Health, Safety, and Human Factors Laboratory, Eastman Kodak Co., Rochester, NY*

Annual Business Meeting
Tuesday, March 13, 1979
3:30 P.M.
Grand Ballroom
Open to all SOT Members

ISSUES SESSION
Mardi Gras Ballroom A, B, C, D
Wednesday, March 14, 1979
12 Noon - 1:15 P.M.

Bring a sandwich, etc. from the snack bar and participate in an open forum discussion of SOT affairs.
Chaired by President Leon Golberg

ANNUAL BANQUET
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Guest