SOCIETY OF TOXICOLOGY

22nd ANNUAL MEETING

March 7-11, 1983
Caesars Palace
Las Vegas, Nevada

PROGRAM
MIXER AND RECEPTION
Monday Evening, March 7, 1983
6:00 - 7:30 P.M.
Colosseum II & III
Cash Bar
Open to all attendees and guests

ISSUES SESSION
Tuesday Afternoon, March 8, 1983
12 Noon - 1:15 P.M.
Julius Room
_Chaired by President Robert L. Dixon_
Bring a sandwich, etc. and participate in an open forum discussion of SOT affairs

ANNUAL BUSINESS MEETING
Wednesday Afternoon, March 9, 1983
3:30 P.M.
Julius Room
_President Robert L. Dixon, Presiding_
SOT Members Only

ANNUAL BANQUET
Thursday Evening, March 10, 1983
7:00 P.M.
Julius Room
Open to all attendees and guests
Complimentary Wine
_Courtesy, Charles River Breeding Laboratories, Inc._
22nd ANNUAL MEETING

sponsored by

Caesars Palace - Las Vegas, Nevada
March 7-11, 1983

REGISTRATION FEES

<table>
<thead>
<tr>
<th></th>
<th>Member or Post-doctoral In Training</th>
<th>Non-Member</th>
<th>Student, Full-time, Predoctoral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-registration</td>
<td>$50.00</td>
<td>$75.00</td>
<td>$5.00</td>
</tr>
<tr>
<td>At Conference</td>
<td>60.00</td>
<td>85.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Banquet</td>
<td>25.00</td>
<td>25.00</td>
<td>25.00</td>
</tr>
</tbody>
</table>
# PROGRAM SUMMARY

## Platform

<table>
<thead>
<tr>
<th>Day/Time</th>
<th>Topic</th>
<th>Room</th>
<th>See Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday 8:30 A.M.</td>
<td>General I</td>
<td>Colosseum II</td>
<td>11</td>
</tr>
<tr>
<td>Tuesday 1:30 P.M.</td>
<td>Metabolism I</td>
<td>Colosseum III</td>
<td>12</td>
</tr>
<tr>
<td>Tuesday 1:30 P.M.</td>
<td>Inhalation II</td>
<td>Colosseum II</td>
<td>20</td>
</tr>
<tr>
<td>Tuesday 1:30 P.M.</td>
<td>Metals I</td>
<td>Colosseum III</td>
<td>23</td>
</tr>
<tr>
<td>Tuesday 1:30 P.M.</td>
<td>Reproduction/Teratology II</td>
<td>Nero's Room</td>
<td>24</td>
</tr>
<tr>
<td>Wednesday 8:30 A.M.</td>
<td>General II</td>
<td>Colosseum II</td>
<td>31</td>
</tr>
<tr>
<td>Wednesday 8:30 A.M.</td>
<td>Metabolism II</td>
<td>Colosseum III</td>
<td>33</td>
</tr>
<tr>
<td>Wednesday 8:30 A.M.</td>
<td>Neurological II</td>
<td>Nero's Room</td>
<td>34</td>
</tr>
<tr>
<td>Wednesday 1:30 P.M.</td>
<td>Cardiovascular/Renal</td>
<td>Colosseum II</td>
<td>42</td>
</tr>
<tr>
<td>Wednesday 1:30 P.M.</td>
<td>Inhalation IV</td>
<td>Colosseum III</td>
<td>43</td>
</tr>
<tr>
<td>Wednesday 1:30 A.M.</td>
<td>Metals II</td>
<td>Nero's Room</td>
<td>44</td>
</tr>
<tr>
<td>Thursday 8:30 A.M.</td>
<td>General III</td>
<td>Colosseum II</td>
<td>50</td>
</tr>
<tr>
<td>Thursday 8:30 A.M.</td>
<td>Metabolism IV - Industrial</td>
<td>Colosseum III</td>
<td>52</td>
</tr>
<tr>
<td>Thursday 1:30 P.M.</td>
<td>Biochemical II</td>
<td>Colosseum II</td>
<td>61</td>
</tr>
<tr>
<td>Thursday 1:30 P.M.</td>
<td>Halogenated Hydrocarbons II</td>
<td>Colosseum III</td>
<td>62</td>
</tr>
<tr>
<td>Day/Time</td>
<td>Topic</td>
<td>Room</td>
<td>See Page</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------</td>
<td>-------------</td>
<td>----------</td>
</tr>
<tr>
<td>Thursday 1:30 P.M.</td>
<td>Inhalation VI</td>
<td>Neros Room</td>
<td>64</td>
</tr>
<tr>
<td>Friday 8:30 A.M.</td>
<td>Biochemical III</td>
<td>Colosseum II</td>
<td>72</td>
</tr>
<tr>
<td>Friday 8:30 A.M.</td>
<td>Oncogenesis/Mutagenesis II</td>
<td>Colosseum III</td>
<td>73</td>
</tr>
</tbody>
</table>

**Symposia**

<table>
<thead>
<tr>
<th>Day/Time</th>
<th>Topic</th>
<th>Room</th>
<th>See Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday 8:30 A.M.</td>
<td>Future of Animals in Research and Testing</td>
<td>Julius Room</td>
<td>17</td>
</tr>
<tr>
<td>Tuesday 1:30 P.M.</td>
<td>Alcohol Metabolism and Hepatotoxicity</td>
<td>Julius Room</td>
<td>28</td>
</tr>
<tr>
<td>Wednesday 8:30 A.M.</td>
<td>Selenium — Toxin or Panacea</td>
<td>Julius Room</td>
<td>39</td>
</tr>
<tr>
<td>Thursday 8:30 A.M.</td>
<td>Food Toxicology</td>
<td>Julius Room</td>
<td>58</td>
</tr>
<tr>
<td>Thursday 1:30 P.M.</td>
<td>Application of Neurophysiological Techniques to Toxicalogical Problems</td>
<td>Augustus Room</td>
<td>69</td>
</tr>
<tr>
<td>Friday 8:30 A.M.</td>
<td>Biological Effects of Chemical Interactions</td>
<td>Julius Room</td>
<td>84</td>
</tr>
</tbody>
</table>
### Poster

<table>
<thead>
<tr>
<th>Day/Time</th>
<th>Topic</th>
<th>See Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>(All in rear of Colosseum Exhibit Area)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td>Inhalation I</td>
<td>13</td>
</tr>
<tr>
<td>8:30 A.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td>Neurological I</td>
<td>15</td>
</tr>
<tr>
<td>8:30 A.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td>Reproduction/Teratology I</td>
<td>18</td>
</tr>
<tr>
<td>8:30 A.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td>Oncogenesis/Mutagenesis I</td>
<td>25</td>
</tr>
<tr>
<td>1:30 P.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td>Organ Specific</td>
<td>29</td>
</tr>
<tr>
<td>1:30 P.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>Immunological</td>
<td>35</td>
</tr>
<tr>
<td>8:30 A.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>Inhalation III</td>
<td>37</td>
</tr>
<tr>
<td>8:30 A.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>Reproduction/Teratology III</td>
<td>39</td>
</tr>
<tr>
<td>8:30 A.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>Metabolism III - Agricultural</td>
<td>45</td>
</tr>
<tr>
<td>1:30 P.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>Metabolism III - Disposition</td>
<td>49</td>
</tr>
<tr>
<td>1:30 P.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td>Biochemical I</td>
<td>53</td>
</tr>
<tr>
<td>8:30 A.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td>Halogenated Hydrocarbons I</td>
<td>55</td>
</tr>
<tr>
<td>8:30 A.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td>Inhalation V</td>
<td>59</td>
</tr>
<tr>
<td>8:30 A.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td>General IV</td>
<td>65</td>
</tr>
<tr>
<td>1:30 P.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td>Metals III</td>
<td>70</td>
</tr>
<tr>
<td>1:30 P.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td>Environmental</td>
<td>75</td>
</tr>
<tr>
<td>8:30 A.M.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Day/Time

<table>
<thead>
<tr>
<th>Day/Time</th>
<th>Topic</th>
<th>See Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday</td>
<td>General V</td>
<td>77</td>
</tr>
<tr>
<td>8:30 A.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td>Metabolism V</td>
<td>79</td>
</tr>
<tr>
<td>8:30 A.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td>Metals IV</td>
<td>82</td>
</tr>
<tr>
<td>8:30 A.M.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Student/Postdoctoral Colloquium

<table>
<thead>
<tr>
<th>Day/Time</th>
<th>Room</th>
<th>See Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday</td>
<td>Tiberius Room</td>
<td>48</td>
</tr>
<tr>
<td>3:00 P.M.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Refresher Courses

<table>
<thead>
<tr>
<th>Day/Time</th>
<th>Topic</th>
<th>Room</th>
<th>See Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>#1. Dermatotoxicology</td>
<td>Colosseum II, III</td>
<td>8</td>
</tr>
<tr>
<td>8:00 A.M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monday</td>
<td>#2. Practical Statistics for the Toxicologist</td>
<td>Julius Room</td>
<td>8</td>
</tr>
<tr>
<td>8:00 A.M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monday</td>
<td>#3. Complications of Infectious Agents in</td>
<td>Colosseum II, III</td>
<td>9</td>
</tr>
<tr>
<td>1:00 P.M.</td>
<td>Toxicological Research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monday</td>
<td>#4. Male Reproductive Tract Toxicology</td>
<td>Julius Room</td>
<td>10</td>
</tr>
<tr>
<td>1:00 P.M.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
GENERAL INFORMATION

REGISTRATION — CAESARS PALACE — COLLOSSEUM FOYER
   Sunday, Mar. 6 — 3:00 P.M. - 9:00 P.M.
   Monday, Mar. 7 — 7:00 A.M. - 5:00 P.M.
   Tuesday, Mar. 8 — 7:00 A.M. - 4:00 P.M.
   Wednesday, Mar. 9 — 7:00 A.M. - 4:00 P.M.
   Thursday, Mar. 10 — 7:30 A.M. - 4:00 P.M.

HOTEL ACCOMMODATIONS
Caesars Palace is Conference headquarters. The guest room rates are guaranteed when reservations are made on the hotel form enclosed with the program packet.
The hotel accepts major credit cards.
Caesars Palace will act as Housing Bureau and once capacity is reached, they will process overflow reservations in nearby hotels as needed.
All sessions will be held in Caesars Palace.

AIRPORT LIMOUSINE SERVICE
Direct limousine service is available from the Las Vegas Airport to Caesars Palace.

CONFERENCE HEADQUARTERS — SENATE I, II, III
Sunday, Mar. 6 — 3:00 P.M. - 9:00 P.M.
Monday thru Thursday — 7:00 A.M. - 5:00 P.M.
Friday — 7:00 A.M. - Noon

PLACEMENT SERVICE — CALIGULA & VITTELIUS
Monday, Mar. 6 — 1:00 P.M. - 5:00 P.M.
Tuesday & Wednesday — 8:30 A.M. - 5:00 P.M.
Thursday — 8:30 A.M. - Noon
Co-Chairmen: R.F. Johannsen, R.A. Parent
PRESS ROOM — VESPASIAN
Monday, Tuesday, Wednesday — 8:00 A.M. - 5:00 P.M.
Thursday — 8:00 A.M. - Noon

SPOUSE HOSPITALITY — REGALIUM
Monday, Tuesday, Wednesday — 9:00 A.M. - 4:00 P.M.
Thursday, Friday — 9:00 A.M. - Noon

EXHIBIT INFORMATION
All commercial exhibits will be in Colosseum IV, V and VI.

Exhibit Hours and Dates:
  Tuesday, March 8 — 8:30 A.M. - 5:00 P.M.
  Wednesday, March 9 — 8:30 A.M. - 5:00 P.M.
  Thursday, March 10 — 8:30 A.M. - 5:00 P.M.

ABSTRACTS OF PAPERS (THE TOXICOLOGIST)
Distributed without charge to all members of the Society of Toxicology in advance of the meeting. Non-members will be given the abstracts with their registration at the meeting. Additional copies available at the Conference Registration Desk at $5 each.
REFRESHER COURSES

Society of Toxicology Continuing Education Courses

(Pre-Registration necessary — See Conference
Pre-Registration form enclosed in conference packet)

1. Dermatotoxicology
   Monday Morning, March 7, 1983
   8:00 A.M. - Noon
   Colosseum II & III
   $50.00* (including textbook)

This course will provide a survey of the science that deals with adverse skin effects and the substances that produce them. The second edition of the well-known text "Dermatotoxicology" will be used and copies will be provided to each attendee. The editors, Dr. Francis N. Marzulli (National Academy of Sciences) and Dr. Howard I. Maibach (University of California - San Francisco Medical Center), with assistance from contributing authors, will cover selected portions of the text. This is an excellent opportunity for individuals to learn from experts in the field and obtain a copy of the book for future reference for a registration fee that is less than the list price of the text.

*Special discount: $35 for full-time, predoctoral students.

2. Practical Statistics for the Toxicologist
   Monday Morning, March 7, 1983
   8:00 A.M. - Noon
   Julius Room
   $30.00*

This course will provide a survey on basic statistical considerations used to design, analyze and interpret toxicological experiments. Emphasis will be given to presenting basic concepts and information that can be used by toxicologists to improve the quality of their work. The faculty members are experts who understand statistics and equally important, know how to apply statistical methods to toxicological problems. All participants will receive a syllabus covering the material that is presented.
Philosophy of Statistics as Applied to Toxicology. Dr. Jerry B. Hook, Michigan State University.


Risk Estimation: Biological and Mathematical Modeling Issues. Dr. Thomas B. Starr, Chemical Industry Institute of Toxicology.

*Special discount: $15 for full-time, predoctoral students.

3. Complications of Infectious Agents in Toxicological Research
   Monday Afternoon, March 7, 1983
   1:00 P.M. - 5:00 P.M.
   Colosseum II and III
   $30.00*

It is increasingly apparent that infectious agents pose a serious complicating factor in the conduct and interpretation of toxicological studies. This course will include state-of-the-art information on the effects of infectious agents on toxicological studies. The material presented will aid participants in planning and conducting studies to minimize the complications of infectious agents. Moreover, the knowledge gained will assist in critically evaluating the results of studies that may have been complicated by the presence of infectious agents. The faculty for the course are scientists who are internationally recognized for their work in this important area.

Dr. Stephen W. Barthold, Section of Comparative Medicine, Yale University School of Medicine.

Dr. Gary A. Boorman, National Toxicology Program.

Dr. William C. Hall, Microbiological Associates, Bethesda, MD.

Dr. Thomas E. Hamm, Jr., Chemical Ind. Inst. of Toxicology.

Dr. J. Russell Lindsey, Department of Comparative Medicine, University of Alabama Medical Center.

All attendees will receive a syllabus covering the material that is presented.

*Special discount: $15 for full-time, predoctoral students.
4. Male Reproductive Tract Toxicology
Monday Afternoon, March 7, 1983
1:00 P.M. - 5:00 P.M.
Julius Room
$30.00*

This course will present information on the physiology and biochemistry of the male reproductive tract and how normal function may be altered by toxic agents. The faculty are recognized experts in this highly specialized field. They will present background material and important concepts to familiarize non-experts with the field and enhance the knowledge of those who are working in this area. All participants will receive a syllabus covering the material presented by the speakers.

Introductory Remarks. Dr. Thomas H.F. Smith, IBM Corp.

Physiology and Biochemistry of the Male Reproductive Tract and the Process of Spermatogenesis. Dr. Larry Zaneveld, University of Illinois.

An overview of Agents Toxic to the Male Reproductive Tract. Dr. John A. Thomas, Travenol Laboratories.

Indicators for Male Reproductive Toxicity. Dr. Andrew Wyrobek, Lawrence Livermore National Laboratory.

Factors Affecting Human Infertility. Dr. James Overstreet, Univ. of California - Davis.

Concluding Remarks. Dr. Robert L. Dixon, National Institute for Environmental Health Sciences.

*Special discount: $15 for full-time, predoctoral students.
Tuesday Morning, March 8, 1983

PLATFORM SESSION 1: General I

Colosseum II

Co-Chairs: E.J. Youkilis, Baxter-Travenol Labs., Morton Grove, IL
J.L. Way, Washington State Univ., Pullman, WA

<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (A.M.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8:30</td>
</tr>
<tr>
<td>2</td>
<td>8:45</td>
</tr>
<tr>
<td>3</td>
<td>9:00</td>
</tr>
<tr>
<td>4</td>
<td>9:15</td>
</tr>
<tr>
<td>5</td>
<td>9:30</td>
</tr>
<tr>
<td>6</td>
<td>9:45</td>
</tr>
<tr>
<td>7</td>
<td>10:00</td>
</tr>
<tr>
<td>Methemoglobin Production of Primaquine Diphosphate and Three Other 8-Aminoquinoline Candidate Antimalarial Drugs.</td>
<td>J.C. Anders, J.R. Baker and H. Chung, Dept. of Pharm., Walter Reed Army Inst. of Res., Washington, DC.</td>
</tr>
<tr>
<td>8</td>
<td>10:15</td>
</tr>
<tr>
<td>9</td>
<td>10:30</td>
</tr>
</tbody>
</table>


Tuesday Morning, March 8, 1983
PLATFORM SESSION 2: Metabolism I
Colosseum III
Co-Chairs: J.A. Last, Univ. of California, Davis, CA
G. Witz, Rutgers Univ., Piscataway, NJ

Paper No. Time (A.M.)
17 9:00 The Enzymatic Reaction of Chlorotrifluoroethylene with Glutathione. D.R. Dohn and M.W. Anders, Dept. of Pharm., Univ. of Minnesota, Minneapolis, MN, and Dept. of Pharm., Univ. of Rochester, Rochester, NY.
21  10:00  Tissue Distribution and Hepatic Monoxygenase Activity of Selected Chlorinated Diphenyl Ethers. F. Iverson, H. Newsome, B. Shields and S.L. Hierlihy, Tox. & Food Res. Divs., Foods Directorate, Health Protection Branch, Ottawa, Ont., Canada.


25  11:00  A Purified Form of Cytochrome P-450 from Rainbow Trout Liver with High Activity for Activation of Aflatoxin B1 (B1). D.E. Williams and D.R. Buhler, Dept. of Agric. Chem. & Env. Health Sci. Ctr., Oregon State Univ., Corvallis, OR.


Tuesday Morning, March 8, 1983

POSTER SESSION 1A: Inhalation I

Rear of Colosseum Exhibit Area

Organizer: C.H. Hobbs, Lovelace ITRI, Albuquerque, NM

Displayed: 8:30 A.M. — 11:30 A.M.
Attended: 8:30 A.M. — 10:00 A.M. (Even Paper Numbers)
10:00 A.M. — 11:30 A.M. (Odd Paper Numbers)

Paper No.

28  Metabolism and Release of Diesel Particle Hydrocarbons by Alveolar Macrophages In Vitro. C.S. Wheeler and J.J. Vostal, Biomedical Sci. Dept., General Motors Res. Labs., Warren, MI.

29  The Effects of Diesel Exhaust and/or Coal Dust on Alveolar Macrophages. L. Bowman, P.R. Miles, M.J. Reaor, T. Lewis and V. Castranova, NIOSH and West Virginia Univ., Morgantown, WV.
Changes in Lung Cell Population and Phospholipid (PL) Metabolism During Inhalation Exposure of Rats to Diesel Exhaust. E.S. Wright and J.J. Vostal, Biomedical Sci. Dept., General Motors Res. Labs., Warren, MI.


Biological Effects of Chronic Inhalation of Coal Dust Aerosol (CDA) and/or Diesel Exhaust (DE). V. Castranova, A. Azzaro, W. Brogan, B. Colasanti, C. Craig, K. Curto, M. Davis, M. Donovan, J. Fedan, F. Green, R. Head, T. Lewis, M. Mawhinney, M. Reasor, R. Stitzel, K. Van Dyke, K. Weber and D. Wierda, NIOSH, and Dept. of Pharmacol. and Toxicol., West Virginia Univ., Morgantown, WV.

Effects of Chronic Inhalation of Coal Dust and/or Diesel Exhaust on Responses of Rat Airway Smooth Muscle to Agonists. J.S. Fedan, M.S. Franczak, C. Kosten, J.F. Cahill, D.G. Frazer, T. Lewis and V. Castranova, NIOSH, Morgantown, WV and Cincinnati, OH.
Tuesday Morning, March 8, 1983

POSTER SESSION 1B: Neurological I

Rear of Colosseum Exhibit Area

Organizer: J.E. Manno, Louisiana State Univ. Med. School,
Shreveport, LA

Displayed: 8:30 A.M. — 11:30 A.M.
Attended: 8:30 A.M. — 10:00 A.M. (Even Paper Numbers)
10:00 A.M. — 11:30 A.M. (Odd Paper Numbers)

PAPER REMOVED

48

Chlordimeform Differentially Affects Pattern Reversal-evoked
and Flash-evoked Potentials in Rats. R.S. Dyer and W.K.
Research Triangle Park, NC. Sponsor: L.W. Reiter.
50 Neurobehavioral Toxicity of 2,4-Dichlorophenoxyacetic Acid (2,4-D) in Rats. C.L. Mitchell, H.A. Tilson and R.E. Squibb, Jr., Lab. Behav. Neurol. Toxicol., NIEHS, Research Triangle Park, NC.


53 Separation of Mipafox Sensitive from Paraoxon Sensitive Esterases by Sucrose Density Gradient Sedimentation. Y. Ishikawa, E. Chow, M.G. McNamee and B.W. Wilson, Avian Sciences, Univ. of California, Davis, CA.


57 Decreased Binding of ^3H-Nicotine in Brain from Rats Tolerant to the Organophosphate Disulfoton. L.G. Costa and S.D. Murphy, Div. Toxicol., Univ. Texas Med. School, Houston, TX.


Acrylamide Inhibition of Nerve Glycolytic Enzymes In Vivo and In Vitro. S.M. Ross, M.I. Sabri and P.S. Spencer, Inst. of Neurotoxicol., Albert Einstein College of Medicine, Bronx, NY.

Influence of Afterhyperpolarization (AHP) on the Repetitive Firing of Motoneurons (MN) in IDPN Neuropathy. D.A. Delio and H.E. Lowndes, Dept. of Pharm., UMDNJ, Newark, NJ.

Extrapolations of Sensitivity of Brain Acetylcholinesterase from Several Species to Organophosphate Inhibition Based on Sensitivity of Rat Brain Acetylcholinesterase. C. Wang & S.D. Murphy, Div. of Toxicol., Univ. of Texas Med. School at Houston, Houston, TX.

Functional and Histological Evidence of a Peripheral Neuropathy in Chicks Treated with TOCP as Embryos. L. Sheets and S. Norton, Dept. of Pharmacol., Toxicol. & Therapeut., Univ. of Kansas Med. Ctr., Kansas City, KS.

Tuesday Morning, March 8, 1983

SYMPOSIUM 1:
The Future of Animals in Research and Teaching

Julius Room

Chairman: G. W. Newell, Electric Power Research Inst., Palo Alto, CA

Time (A.M.)

8:30  Introduction. G.W. Newell.

8:35  Current Legislation for Development of Substitutes for Animals in Research. T.R. Kramer, Chief Staff Director, House Subcommittee on Science, Research & Technology, Washington, DC.

8:55  The Search for Alternatives. A. Rowan, Associate Director, Inst. for the Study of Animal Problems, Washington, DC.

9:15  Research Approaches in Developing Alternative Test Procedures. A. Goldberg, Johns Hopkins Univ., Baltimore, MD.

9:35  AAALAC Animal Care and the New Legislation. P. Manning, Univ. of Minnesota, Minneapolis, MN.

9:55  The European Scene. I. Purchase, Director Central Toxicol. Lab., Imperial Chemical Industries, Alderley Park / Macclesfield, Cheshire, U.K.

10:15-Noon  Roundtable Discussion & Questions --- Symposium Participants & Audience.
Tuesday Morning, March 8, 1983

POSTER SESSION 1C: Reproduction/Teratology I

Rear of Colosseum Exhibit Area

Organizer: N.J. Galiher, Zocon Corp., Palo Alto, CA

Displayed: 8:30 A.M. — 11:30 A.M.
Attended: 8:30 A.M. — 10:00 A.M. (Even Paper Numbers)
10:00 A.M. — 11:30 A.M. (Odd Paper Numbers)

Paper No.


68 The Effects of Gestational Exposure of Rats and Rabbits to Kathon® Biocide. R.D. Costlow, A.W. Hayes, J.N. Moss and J.M. Smith, Rohm & Haas Co., Spring House, PA; D. Rodwell, Wil Labs., Ashland, OH; W. Weatherholtz, Hazleton Labs., Vienna, VA.

69 Antiabortifacient Action of Dibenzylxyloxyindanpropionic Acid (DIPA) in Mice. F.R. Del Vecchio and R.G. Rahwan, Div. of Pharmacol., Ohio State Univ., Columbus, OH.

70 Teratology and Multigeneration Reproduction Studies with Maleic Anhydride in Rats. R.D. Short, F.R. Johannsen and G.J. Levinskas, Monsanto Co., St. Louis, MO; D.E. Rodwell and J.L. Schardein, IRDC, Mattawan, MI.

71 Effect of Dog Food Containing 460 ppm Fluoride on Rat Reproduction. T.A. Marks, D. Schellenberg and C.M. Metzler, Upjohn Co., Kalamazoo, MI; J. Oosteen, Western Michigan Univ., Kalamazoo, MI; M.J. Morey, Allegan Study Group, Kalamazoo, MI.


Body Weight Loss Induced by Food Restriction Causes Testicular Atrophy and Aspermatogenesis in Rabbits. C.A. Keller and R.W. Kapp, Exxon Corp. and Bio/dynamics Inc., East Millstone, NJ. Sponsor: G.F. Egan.


Effects of $\alpha$-Chlorohydrin on Rat Epididymal Protein Patterns Studied by 2-D Gels. I.P. Lee, R. Bechter, M. Matsuda and R.L. Dixon, Lab. of Reproductive and Dev. Toxicol., NIEHS, Research Triangle Park, NC.


Tuesday Afternoon, March 8, 1983

PLATFORM SESSION 3: Inhalation II

Colosseum II

Co-Chairs: J.A. Graham, U.S. EPA, Research Triangle Park, NC

M.H. Karol, Univ. of Pittsburgh, Pittsburgh, PA

<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (P.M.)</th>
<th>Title</th>
<th>Authors and Affiliations</th>
</tr>
</thead>
<tbody>
<tr>
<td>89</td>
<td>1:45</td>
<td>Comparative Toxicity of Environmental Particulate Matter to Pulmonary Macrophages.</td>
<td>G.L. Fisher, K. McNeill, C. Damocko, and R. Valentine, Battelle Columbus Labs., Columbus, OH.</td>
</tr>
<tr>
<td>90</td>
<td>2:00</td>
<td>Respiratory Tract Clearance of Intratracheally Instilled Nickel Subsulfide in Normal and Emphysematous Mice.</td>
<td>R. Valentine and G.L. Fisher, Battelle Columbus Labs., Columbus, OH.</td>
</tr>
</tbody>
</table>
98 4:00 Anatomical Kidney Changes in Rats Following Inhalation Exposure to C16-C1: Isoparaffinic Solvent. B.Y. Cockrell and W.O. Iverson, Exp. Pathol. Labs., Herndon, VA; R.D. Phillips, Exxon Corp., East Millstone, NJ.


---

Tuesday Afternoon, March 8, 1983

ISSUES SESSION

12 Noon - 1:15 P.M.
Colosseum I

Chaired by President Robert L. Dixon

Bring a sandwich, etc. and participate in an open discussion of SOT affairs

---

Tuesday Afternoon, March 8, 1983

REGIONAL CHAPTER MEETINGS

5:00 P.M.

Intermountain
Claudius Room

This chapter is in the initial formative stage

*******
Tuesday Afternoon, March 8, 1983
REGIONAL CHAPTER MEETINGS (Cont'd.)

Michigan
Colosseum II

********

Mid-Atlantic
Colosseum III
Cash Bar

*******

Mid-West
Augustus Room
Kenneth P. Dubois Award will be presented
Cash Bar

********

National Capitol Area
Neros Room
Cash Bar

*******

South Central
Regalium
Cash Bar

*******

Current or prospective members of any of the above chapters are invited to attend

Tuesday Afternoon, March 8, 1983
SPECIALTY SECTION MEETING
Mechanisms
6:00 P.M.
Julius Room

Robert Snyder, Presiding
Open to all current and prospective members of the section
**Tuesday Afternoon, March 8, 1983**

**PLATFORM SESSION 4: Metals I**

**Colosseum III**

*Co-Chairs: M. Costa, Univ. of Texas, Houston, TX*

*M. Ehrich, Virginia Polytechnic Inst., Blacksburg, VA*

<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (P.M.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>102</td>
<td>1:30</td>
</tr>
<tr>
<td><strong>Stimulation of DNA Repair Synthesis in Cultured Mammalian Cells by Various Metal Compounds.</strong> S.H. Robison, O. Cantoni and M. Costa, Div. of Toxicol., Dept. of Pharmacol., Univ. of Texas Med. School, Houston, TX.</td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>1:45</td>
</tr>
<tr>
<td><strong>Genotoxic Effects of Hg(II) and Cr(VI) on Repair Deficient Mutants of CHO Cells.</strong> N.T. Christie and M. Costa, Div. of Toxicol., Dept. of Pharmacol., Univ. of Texas Med. School, Houston, TX.</td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>2:00</td>
</tr>
<tr>
<td>105</td>
<td>2:15</td>
</tr>
<tr>
<td>106</td>
<td>2:30</td>
</tr>
<tr>
<td><strong>Tolerance to Cd-induced Hepatotoxicity Following Cd Pretreatment.</strong> P. Goering and C.D. Klaassen, Dept. of Pharmacol., Toxicol. &amp; Therap., Univ. of Kansas Med. Ctr., Kansas City, KS.</td>
<td></td>
</tr>
<tr>
<td>107</td>
<td>2:45</td>
</tr>
<tr>
<td><strong>Mechanism of Zinc-induced Tolerance to Cd Toxicity.</strong> P.L. Goering and C.D. Klaassen, Dept. of Pharmacol., Toxicol. &amp; Therap., Univ. of Kansas Med. Ctr., Kansas City, KS.</td>
<td></td>
</tr>
<tr>
<td>108</td>
<td>3:00</td>
</tr>
<tr>
<td>109</td>
<td>3:15</td>
</tr>
<tr>
<td>110</td>
<td>3:30</td>
</tr>
<tr>
<td>111</td>
<td>3:45</td>
</tr>
</tbody>
</table>
112 4:00  Postnatal Ontogeny of Metallothionein (MT) in Various Organs of Rats. M.P. Waalkes and C.D. Klaassen, Dept. of Pharmacol., Toxicol. & Therap., Univ. of Kansas Med. Ctr., Kansas City, KS.


Tuesday Afternoon, March 8, 1983

PLATFORM SESSION 5: Reproduction/Teratology II

Neros Room

Co-Chairs: F.J. Murray, Syntex, Inc., Palo Alto, CA
S.M. Tarka, Hershey Foods Corp., Hershey, PA

Paper No.  Time (P.M.)  Title and Authors


119 2:15  Comparison of the Teratogenic Effects of Succinonitrile (SN) and Tetramethylsuccinonitrile (TMSN) in the Syrian Golden Hamster (SGH). P.A. Doherty, R.P. Smith and V.H. Ferm, Dept. of Pharmacol./Toxicol. and of Anat./Cytol., Dartmouth Med. School, Hanover, NH.


125 3:45 Transplacental Carcinogenesis Associated with Genetic Susceptibility to 3-Methylcholanthrene (3-MC) at the Murine Ah Locus. R.G. York and J.M. Manson, Kettering Lab., Univ. of Cincinnati, Cincinnati, OH.


Tuesday Afternoon, March 8, 1983

POSTER SESSION 2A: Oncogenesis/Mutagenesis I

Rear of Colosseum Exhibit Area

Organizer: L.W. Reiter, U.S. EPA, Research Triangle Park, NC

Displayed: 1:30 P.M. — 4:30 P.M.
Attended: 1:30 P.M. — 3:00 P.M. (Even Paper Numbers)

Paper No.


Effects of bis-Chloronitrosourea (BCNU) on Pulmonary and Serum Angiotensin Converting Enzyme (ACE) Activity in Rats. A.C. Smith and M.R. Boyd, NCI, Bethesda, MD.


Distribution and Binding of Urethane in Sencar and Balb/C Mice. A.A. Fossa and G.P. Carlson, Dept. Pharmacol. & Toxicol., School of Pharmacy & Pharm. Sci., Purdue Univ., West Lafayette, IN.

Histochemical and Histopathological Evaluation of the Initiating and Promoting Effects of Trichloroethylene in Rat Liver. M.M. Milks, I.I. Ali and D. Couri, Div. of Toxicol., Dept. of Pharmacol., Ohio State Univ., Columbus, OH.


A Two-year Dermal Bioassay for Carcinogenicity of 1,12 Diperoxododecane-1,2-Dioic Acid (DPDA). J.L. Seymour, Procter & Gamble Co., Cincinnati, OH; J.L. Gargus and R.W. Voelker, Hazleton Labs. of America, Vienna, VA.


Comparative Metabolism and Activation to Bacterial Mutagens by Isolated Hepatocytes from Rainbow Trout (Salmo Gairdneri) and Coho Salmon (Oncorhynchus Kutch). R.A. Coulombe, G.S. Bailey and J.E. Nixon, Dept. of Food Sci., Oregon State Univ., Corvallis, OR.


A Rapid and Sensitive Technique for Measuring Unscheduled DNA Synthesis in Primary Hepatocyte Cultures. D.J. Loury and J.L. Byard, Dept. of Env. Toxicol., Univ. of California, Davis, CA.


Reactivity of Mutagenic Propylene Oxides Towards Deoxyribozyme. Z. Djunic and J.E. Sinseimer, College of Pharmacy, Univ. of Michigan, Ann Arbor, MI. Sponsor: A. Kulkarni.


Measurement of DNA Repair in Isolated Hepatocyte Suspensions — A Novel Membrane Filter Assay Suitable for Quantitation of DNA Repair and Damage. M.T.S. Hsia, W.L. Kreamer and P. Dolara, Env. Toxicol. Ctr. and Dept. of Entomol., Univ. of Wisconsin, Madison, WI.


Tuesday Afternoon, March 8, 1983

SYMPOSIUM 2: (SOT Mechanisms Section)
Alcohol Metabolism and Hepatotoxicity

Julius Room

Chairman: R.G. Thurman, Univ. of North Carolina, Chapel Hill, NC

Time (P.M.)

1:30 Introduction, R.G. Thurman.

1:35 Pathways of Alcohol Metabolism: Facts and Problems. M. Schulman, Univ. of Illinois, Chicago, IL.

2:20 Alcohol Oxidation by Highly Purified Liver Microsomal Cytochrome P-450. M.J. Coon, Univ. of Michigan, Ann Arbor, MI.

3:05 Break.


4:05 Alcohol Potentiation of Liver Injury. O. Strubelt, Inst. fur Toxikologie der Medizinischen Hochschule Lubeck, West Germany.
Tuesday Afternoon, March 8, 1983

POSTER SESSION 2B: Organ-specific

Rear of Colosseum Exhibit Area

Organizer: G.L. Fisher, Battelle Columbus Labs., Columbus, OH

Displayed: 1:30 P.M. — 4:30 P.M.

Attended: 1:30 P.M. — 3:00 P.M. (Even Paper Numbers)
3:00 P.M. — 4:30 P.M. (Odd Paper Numbers)

Paper No.


160  Antagonism by d-Penicillamine of Dithiobiuret-induced Neuromuscular Toxicity. K.D. Williams, R.M. LoPachin and R.E. Peterson, School of Pharmacy, Univ. of Wisconsin, Madison, WI.


165  Selective Inhibition of Rat Pulmonary Monoxygenase by 0,0,S-Trimethyl Phosphorothioate (00S) Treatment. T. Imamura, J. Gandy and T.R. Fukuto, Div. of Toxicol. & Physiol., Univ. of California, Riverside, CA.

Specific Inhibition of Pulmonary Monoamine Oxidase Form A by Chlorthemine. L. Zychlinski and M.R. Montgomery, Dept. of Pharmacol., Univ. of South Florida and VA Hosp., Tampa, FL.


Sequential and Dose-Dependent Morphological Alterations in Rat Bronchiolar Epithelium During 0,0,S-Trimethyl Phosphorothioate (00S) Induced Delayed Toxicity. J. Gandy, T.R. Fukuto and T. Imamura, Div. of Toxicol. & Physiol., Univ. of California, Riverside, CA.


Pneumotoxic Effects of Thiobenzamide Derivatives. D.A. Penney, J.R. Cashman, G.J. Traiger and R.P. Hanzlik, Depts. of Pharmacol. & Toxicol. and Med. Chem., School of Pharm., Univ. of Kansas, Lawrence, KS.


Effect of Chemical Irritants on Mouse Skin Epithelial Cell Protein Production. C.J. Molloy, M.A. Gallo and J.D. Laskin, Dept. of Env. and Community Med., Rutgers Med. School/Rutgers Program in Toxicol., Piscataway, NJ.


Wednesday Morning, March 9, 1983

PLATFORM SESSION 6: General II

Colosseum II

Co-Chairs: W.M. Dairman, Hoffmann-La Roche, Inc., Nutley, NJ
D.D. Mahlum, Battelle Memorial Inst., Richland, WA

Paper No. Time (A.M.)

184 8:30 A Carcinogenicity Study of Styrene Oxide in Rats. V. Ponomarkov, J.P. Cabral, J. Wahrendorf and D. Galendo, Int'l Agency for Res. on Cancer, Lyon, France.


186 9:00 Toxicity of Alkylhydrofurans to Metabolically Active Organs in the Mouse. R. Wiley, P. Zenk, R. Brinkman, D. Hale and G.J. Traiger, Depts. of Medicinal Chem. and Pharmacol. & Toxicol., Univ. of Kansas, Lawrence, KS.


<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (A.M.)</th>
<th>Title</th>
<th>Authors/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>198</td>
<td>8:30</td>
<td>Covalent Binding and Paraquat Toxicity</td>
<td>T.M. Sullivan and M.R. Montgomery, VA Hosp. and Dept. of Pharmacol., Univ. of South Florida, Tampa, FL.</td>
</tr>
<tr>
<td>204</td>
<td>10:00</td>
<td>Effects of Siberian Ginseng Extract on Parathion Toxicity in Mice</td>
<td>P.W. Ferguson, P.J. Medon, T.C. Briley and C.F. Watson, School of Pharmacy, Northeast Louisiana Univ., Monroe, LA.</td>
</tr>
</tbody>
</table>
207  10:45  Fractionation of Urinary and Fecal Metabolites of the Antimalarial Drug, WR-158,122 Following Oral Doses in Rat and Rhesus Monkey. C C. Smith, A. Khalil and M.W. Tabor, College of Pharmacy and Dept. Env. Health, Univ. of Cincinnati, College of Med., Cincinnati, OH.


210  11:30  Thyroidectomy Cells in Pituitary Gland of Sulfonamide Treated Dogs. S.E. Sadek, Dept. of Toxicol. and Pathol., Hoffmann-La Roche Inc., Nutley, NJ.

211  11:45  The Influence of Methylxanthines on Cardiotoxicity of Isoproterenol in Rats and Minipigs. V. Whitehurst, X. Joseph, J. Vick and T. Balazs, U.S. FDA, Washington, DC.

Wednesday Morning, March 9, 1983

PLATFORM SESSION 8: Neurological II

Neros Room

Co-Chairs: P.S. Spencer, Albert Einstein College of Med., Bronx, NY
B.W. Wilson, Univ. of California, Davis, CA

Paper No.  Time (A.M.)
212  8:30  A Sensitive Measure of Peripheral Nerve Function in the Rat Following Acrylamide. M.J. Miller, M.S. Miller, T.F. Burks and I.G. Sipes, Toxicol. Program and Dept. of Pharmacol., Univ. of Arizona, Tucson, AZ.


216 9:30  The In Vitro Reactivity and In Vivo Toxicity of the 8-Diketone, 2,6-Heptanedione. K. Boekelheide, D.C. Anthony, F. Giangaspero and D.G. Graham, Dept. of Pathol., Duke Univ. Med. Ctr., Durham, NC.


222 11:00  The Covalent Binding of Carbon Disulfide (CS₂) in the Nerve Tissues of Adult Hens. P.W. Lee and R.A. Neal, Dept. of Biochem., Vanderbilt Univ., Nashville, TN.

Wednesday Morning, March 9, 1983

POSTER SESSION 3A: Immunological

Rear of Colosseum Exhibit Area

Organizer: M.A. Hollinger, Univ. of California - Davis, Davis, CA

Displayed: 8:30 A.M. — 11:30 A.M.
Attended: 8:30 A.M. — 10:00 A.M. (Even Paper Numbers)
       10:00 A.M. — 11:30 A.M. (Odd Paper Numbers)

Paper No.


Rat Delayed-type Hypersensitivity Assays to Assess Immunomodulation. G.M. Henningsen and L.D. Koller, Vet. Med., Univ. of Idaho, Moscow, ID.


Development of In Vitro Bioassays for the Detection of Immunotoxic Effects in Humans. F. Wilson, R. Graham and G. Fisher, Battelle Columbus Labs., Columbus, OH.


Wednesday Morning, March 9, 1983

POSTER SESSION 3B: Inhalation III

Rear of Colosseum Exhibit Area

Organizer: R.J. Rubin, Johns Hopkins Univ., Baltimore, MD

Displayed: 8:30 A.M. — 11:30 A.M.
Attended: 8:30 A.M. — 10:00 A.M. (Even Paper Numbers)
10:00 A.M. — 11:30 A.M. (Odd Paper Numbers)

Paper No.


Acute and Subacute Inhalation Toxicity of Sulfuryl Chloride in Rats. D.P. Kelly and E.F. Stula, *E.I. du Pont de Nemours & Co., Inc., Haskell Lab. for Toxol. & Ind. Med.*, Newark, DE.

Acute Toxicity and Upper Respiratory Tract Irritation of Carbonyl Sulfide (COS) and Carbon Disulfide (CS₂) in Rats. B.A. Burgess, P.A. Ashley and G.L. Kennedy, Jr., *E.I. du Pont de Nemours & Co., Inc., Haskell Lab. for Toxol. & Ind. Med.*, Newark, DE.


The Cyanogenic Potential of 2-Chlorobenzylidene Malononitrile. B. Ballantyne, *Union Carbide Corp., South Charleston, WV.*

Changes in Hematological Parameters Following Subacute Inhalation Exposure to p-Nitroaniline and p-Nitrochlorobenzene. R.S. Nair, F.R. Johannsen and G.J. Levinskas, *Monsanto Co., St. Louis, MO; R. Ben-Dyke, Bio/dynamics, East Millstone, NJ.*
Wednesday Morning, March 9, 1983

SYMPOSIUM 3: (SOT Metals Section)
Selenium — Toxin or Panacea?

Julius Room
Chairwoman: C.R. Angle, Univ. of Nebraska Med. Ctr., Omaha, NE

Time (A.M.)

8:30  Introduction. R.C. Schnell, Univ. of Nebraska, Omaha, NE.

8:35  Environmental Selenium and its Significance. L. Fishbein, NCTR/FDA, Jefferson, AR.

9:15  Selenium — Interaction with Carcinogens. P. Wanger, Oregon State Univ., Corvallis, OR.

9:50  Discussion.

10:00  Essentiality of Selenium — Metabolic Mechanisms. R.F. Burk, Univ. of Texas, San Antonio, TX.

10:40  New Biologic Functions — Selenium Dependent Nucleic Acids and Proteins. T. Stadtman, NIH, Bethesda, MD.

11:20  Discussion.

11:35  Summation. E. Massaro, Pennsylvania State Univ., University Park, PA.

Wednesday Morning, March 9, 1983

POSTER SESSION 3C: Reproduction/Teratology III

Rear of Colosseum Exhibit Area
Organizer: R.D. Short, Jr., Monsanto Co., St. Louis, MO

Displayed: 8:30 A.M. — 11:30 A.M.
Attended: 8:30 A.M. — 10:00 A.M. (Even Paper Numbers)
          10:00 A.M. — 11:30 A.M. (Odd Paper Numbers)

Paper No.


The Embryotoxicity of Ring Hydroxylated and Deacetylated Derivatives of 2-Acetylaminofluorena (AAF). E. Faustman-Watts, J. Greenaway, A. Faimel and M. Juchau, Depts. of Pharmacol. & Pediatrics, Univ. of Washington, Seattle, WA.


Spatial Vision Deficits in Adult Rats Following Developmental Lead Exposure. D.A. Fox, L. Costa and A.A. Wright, College of Optometry, Univ. of Houston and Univ. of Texas Health Sci. Ctr., Houston, TX.

Selective Optic Nerve and Visual Cortex Deficits in Adult Rats Following Neonatal Lead Exposure. C.L. Lear, D. Impelman, R. Wilson and D.A. Fox, Div. Tax., Univ. of Texas Med. School and College of Optometry, Univ. of Houston, Houston, TX.


Wednesday Afternoon, March 9, 1983
PLATFORM SESSION 9: Cardiovascular/Renal

Co-Chairs: W.O. Berndt, Univ. of Nebraska, Omaha, NE
W.R. Hewitt, Univ. of Missouri, Columbia, MO

<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (P.M.)</th>
<th>Title and Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>281</td>
<td>1:45</td>
<td>Regulation of DCVC-Induced Renal Tubular Toxicity by Glutathione. C.D. Hassall, A.J. Gandolfi and K. Brendel. Depts. of Pharmacol. &amp; Anesthesiol., Univ. of Arizona, Tucson, AZ.</td>
</tr>
<tr>
<td>282</td>
<td>2:00</td>
<td>Cytotoxicity, Accumulation, and Distribution of Mercuric Chloride in Bovine Kidney Epithelial Cells. W.M. Bracken, R.P. Sharma and D.R. Bourcier, Toxicol. Program, UMC 56, Logan, UT.</td>
</tr>
<tr>
<td>285</td>
<td>2:45</td>
<td>Nephrotoxicity of 1-(2-Chloroethyl)-3-(trans-4-methylcyclohexyl)-1-nitrosourea (McCCNU) in Rat. R. Kramer and M. Boyd, NCI, Bethesda, MD.</td>
</tr>
</tbody>
</table>

Wednesday Afternoon, March 9, 1983
ANNUAL BUSINESS MEETING
3:30 P.M.
Julius Room
President Robert L. Dixon, Presiding
Wednesday Afternoon, March 9, 1983
SPECIALTY SECTION MEETINGS
5:30 P.M.

Inhalation
Neros Room
James T. Stevens, Presiding
The first Inhalation Research Award will be presented

*******

Metals
Colosseum II
Zahir A. Shaikh, Presiding
Cash Bar

*******

Neurotoxicology
Colosseum III
Toshio Narahashi, Presiding
Cash Bar

*******

Reproductive Toxicology
Julius Room
E. Marshall Johnson, Presiding

*******

Each of the above is open to all current and prospective members of the respective section

Wednesday Afternoon, March 9, 1983
PLATFORM SESSION 10: Inhalation IV
Colosseum III

Co-Chairs: D.J. Ecobichon, McGill Univ., Montreal, Que., Canada
W.E. Ribelin, Monsanto Co., St. Louis, MO

<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (P.M.)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>289</td>
<td>1:45</td>
<td>The Subchronic Inhalation Toxicity of Dimethylformamide in Rats and Mice. O.K. Craig, R.J. Weir, W. Wagner and D. Groth, Litton Bionetics, Inc., Rockville, MD; NIOSH, Cincinnati, OH.</td>
</tr>
<tr>
<td>290</td>
<td>2:00</td>
<td>Immunotoxic and Pathologic Effects of Inhalation of Various Levels of Formaldehyde Vapor in F-344 Rats. C.L. Leach, R.P. Sharma and S.G. Oberg, Toxicol. Program, Utah State Univ., Logan, UT.</td>
</tr>
</tbody>
</table>
Wednesday Afternoon, March 9, 1983

PLATFORM SESSION 11: Metals II

Neros Room

Co-Chairs: C.R. Angle, Univ. of Nebraska, Omaha, NE
           M.M. Joselow, Univ. of Medicine of New Jersey, Newark, NJ

<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (P.M.)</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>297</td>
<td>1:30</td>
<td>Erythrocyte Pyrimidine Nucleotides in Uremia: Accumulation Independent of Pyrimidine-5’-nucleotidase or Blood Lead</td>
<td>C.R. Angle, M.S. Swanson and S. Stoehs, Univ. of Nebraska Med. Ctr., Omaha, NE.</td>
</tr>
<tr>
<td>298</td>
<td>1:45</td>
<td>Disposition of Metallothionein in Rat Liver During Postnatal Development</td>
<td>M.G. Cherian, M. Panemangalore and D. Banerjee, Dept. of Pathology, Univ. of Western Ontario, London, Ont., Canada.</td>
</tr>
</tbody>
</table>


Wednesday Afternoon, March 9, 1983

POSTER SESSION 4A: Metabolism III — Agricultural

Rear of Colosseum Exhibit Area

Organizer: G.L. Kennedy, Jr., E.I. DuPont de Nemours & Co., Newark, DE

Displayed: 1:30 P.M. — 4:30 P.M.
Attended: 1:30 P.M. — 3:00 P.M. (Even Paper Numbers)
3:00 P.M. — 4:30 P.M. (Odd Paper Numbers)

Paper No.

306 Correlation of Inhibitory Enzyme Kinetics with Altered Toxicities of Azinphosmethyl (AM), Azinphosethyl (AE) and Their Oxygen Analogues (AMO and AEO) Induced by Piperonyl Butoxide (PB). S.-N. Lin and S.D. Murphy, Div. of Toxicol., Univ. of Texas Med. School, Houston, TX.

307 The Role of Hepatic Biotransformation in the Acute Toxicity of the Organophosphate Chloryprifos. L.G. Sultatos, M. Shao and S.D. Murphy, Div. of Toxicol., Univ. of Texas Med. School, Houston, TX.


311 Binding of the Organophosphates Chlorpyrifos and Parathion to Bovine Serum Albumin. L.G. Sultatos, K.M. Basker and S.D. Murphy, Div. of Toxicol., Univ. of Texas Med. School, Houston, TX.

312 Influence of Pregnancy on the Hepatic Metabolism of Parathion. S. Weitman and J. Lech, Dept. of Pharmacol. & Toxicol., Med. College of Wisconsin, Milwaukee, WI.

313 Allyl Isothiocyanate: Comparative Disposition in Male and Female Rats and Mice. Y.M. Ioannou and H.B. Matthews, Sys. Toxicol. Branch, Nat'l Inst. of Env. Health Sci., Research Triangle Park, NC.


Wednesday Afternoon, March 9, 1983

STUDENT/POSTDOCTORAL COLLOQUIUM
(Arranged by SOT Education Committee)

Tiberius Room

Chairman: C. McGowan, North Carolina State Univ., Raleigh, NC

Time (P.M.)

3:00 Introduction. A.P. Autor, Dept. of Pharmacol., Univ. of Iowa, Iowa City, IA.


4:55 Cyproheptadine Toxicity in the Developing Endocrine Pancreas. S.A. Chow, Dept. of Pharmacol., Univ. of Iowa, Iowa City, IA (Procter & Gamble-SOT Graduate Student Fellowship Awardee, 1982-1983).

5:30 Conclusion.

Note: The time allotted for each speaker includes 30 minutes for the presentation and 5 minutes for questions from the audience.

Wednesday Afternoon, March 9, 1983
POSTER SESSION 4B: Metabolism III — Disposition
Rear of Colosseum Exhibit Area
Organizer: B.W. Wilson, Univ. of California, Davis, CA

Displayed: 1:30 P.M. — 4:30 P.M.
Attended: 1:30 P.M. — 3:00 P.M. (Even Paper Numbers)
3:00 P.M. — 4:30 P.M. (Odd Paper Numbers)

Paper No.

318 Effects of Polyamines on Acetone-enhancement of Aniline Hydroxylases. A. Kulkarni and I. Gonzalez, Toxicol. Program, Dept. of Env. & Ind. Health, Univ. of Michigan, Ann Arbor, MI.


321 The Binding of Isocyanides to Cytochrome P-450. G.A. Beumel and E. Hodgson, Interdepartmental Toxicol. Program, North Carolina State Univ., Raleigh, NC.


324 Influence of Diet on Hepatic Macromolecular Binding of 2,6-Dinitrotoluene (DNT) in Rats. J.D. deBethizy, M. Sherrill, D.E. Rickert and T.E. Hamm, Jr., CLIT, Research Triangle Park, NC.


330 In Vivo and In Vitro Metabolism of Orthochlorophenol (OCP) in Male Rats. W. Houser, A.P. Kulkarni and R. Hartung, Toxicol. Program, Dept. of Env. & Ind. Health, Univ. of Michigan, Ann Arbor, Mi.

331 Disposition of Inhaled (14-C)Acetaldehyde. R.M. David and H.d'A. Heck, CLIT, Research Triangle Park, NC.

Thursday Morning, March 10, 1983
PLATFOR\nPLATFORM SESSION 12: General III

Colosseum II
Co-Chairs: A.J. Gandolfi, Univ. of Arizona, Tucson, AZ
D.M. Serrone, Diamond Shamrock Corp., Painesville, OH

Paper No. Time (A.M.)


335 9:15  Cardiototoxicity of 1-Isoproterenol in Cultured Myocytes: Prevention by 1-Ascorbic Acid and Sodium Bisulfite. K. Ramos, A.B. Combs and D. Acosta, Dept. of Pharmacol. / Toxicol., College of Pharmacy, Univ. of Texas, Austin, TX.

336 9:30  Studies on the Steady State Levels and Turnover Rates of Catecholamines in Rat Brain Following Chlordecone Treatment. C.N. Aldous, C.S. Chetty and D. Desaijah, Dept. of Neurol., Univ. of Mississippi Med. Ctr., Jackson, MS.


339 10:15  Experimental Sensitization to Formaldehyde. M.H. Karol and K. Lee, Dept. of Ind. Env. Health Sci., Grad. School of Pub. Health, Univ. of Pittsburgh, Pittsburgh, PA.


345 11:45  Assessment of Primary Irritation of Parenteral Drugs *In Vitro* and Correlation with *In Vivo* Tests. R.E Bagdon, Robert Edward Bagdon, Inc., Livingston, NJ; H.N. Prince, Gibraltar Biological Labs., Fairfield, NJ.
Thursday Morning, March 10, 1983

PLATFORM SESSION 13: Metabolism IV — Industrial

B.R. Manno, Louisiana State Univ., Shreveport, LA

<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (A.M.)</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>346</td>
<td>8:30</td>
<td>Metabolism of 1,2,3-Trimethylbenzene (Hamimellitene) in Rabbits</td>
<td>S. Laham and M. Potvin, Occup. Toxicol. Res., Env. Health Directorate, Health &amp; Welfare Canada, Ottawa, Ont., Canada.</td>
</tr>
<tr>
<td>347</td>
<td>8:45</td>
<td>The Kinetics of Benzene Metabolism in Primary Hepatocyte Cultures of Guinea Pig and Rat Compared to Inhalation Uptake Kinetics</td>
<td>S.A. Knadle and J.L. Byard, Dept. of Env. Toxicol., Univ. of California, Davis, CA.</td>
</tr>
<tr>
<td>348</td>
<td>9:00</td>
<td>The Fate of 14C-Ethylene diamine (EDA) in the Mouse Following Different Routes of Administration</td>
<td>J.A. McKelvey, M.J. Tallant and R.S.H. Yang, Bushy Run Res. Ctr., Union Carbide Corp., Export, PA.</td>
</tr>
</tbody>
</table>


Thursday Morning, March 10, 1983
POSTER SESSION 5A: Biochemical I

Rear of Colosseum Exhibit Area


Displayed: 8:30 A.M. — 11:30 A.M.
Attended: 8:30 A.M. — 10:00 A.M. (Even Paper Numbers)
10:00 A.M. — 11:30 A.M. (Odd Paper Numbers)

Paper No.


362  Changes in Rat Cytochrome P-450 Subpopulations Following Partial Hepatectomy. P.L. Iversen and M.R. Franklin, Dept. of Biochem. Pharmacol. & Toxicol., Univ. of Utah, Salt Lake City, UT.


364  Effects of Chronic Exposure to Aflatoxin B1 and Aflatoxin M1 on the In Vivo Covalent Binding of Aflatoxin B1 to Hepatic Macromolecules. D.N. Loury and D.P.H. Hsieh, Dept. of Env. Toxicol., Univ. of California, Davis, CA.


Effects of Methoxyacetic Acid and Ethoxyacetic Acid on Mitochondrial Function. P.J. Beattie and M.J. Brabec, Dept. of Env. & Ind. Health, Toxicol., Univ. of Michigan, Ann Arbor, MI.


Comparison of Glutathione Peroxidase from Rat Liver Cytoplasm and Mitochondria. J. Voigt and A.P. Autor, Toxicol. Ctr., Dept. of Pharmacol., Univ. of Iowa, Iowa City, IA.

Relationship Between Metabolism and Cytotoxicity of Acetaminophen in Isolated Hepatocytes. C.E. Green and C.A. Tyson, SRI Int'l, Menlo Park, CA.

Circadian Variations in Acetaminophen (AAP)-Induced Lethality in Male Mice. H.P. Bozigan, M.H. Davies, B.A. Merrick, K.L. Johnson and R.C. Schnell, Dept. Pharmacodynamics-Toxicol., College of Pharmacy, Univ. of Nebraska Med. Ctr., Omaha, NE.


Influence of Uric Acid on Oxidation of Ascorbic Acid in Biological Fluids. L. Hatch, P. Hochstein and A. Sevanian, Inst. for Toxicol., Univ. of Southern California, Los Angeles, CA.


Thursday Morning, March 10, 1983

POSTER SESSION 5B: Halogenated Hydrocarbons I

Rear of Colosseum Exhibit Area

Organizer: R.M. Joy, Univ. of California, Davis, CA

Displayed: 8:30 A.M. — 11:30 A.M.
Attended: 8:30 A.M. — 10:00 A.M. (Even Paper Numbers)
10:00 A.M. — 11:30 A.M. (Odd Paper Numbers)

Paper No.

385  Cystamine Treatment of Chemically Induced Hepatotoxicity. J.R. MacDonald, A.J. Gandolfi and I.G. Sipes, Dept. of Pharmacol. & Toxicol., College of Pharm., and Dept. of Anesth., Univ. of Ariz., Tucson, AZ.

386  Effect of Dibromoethane and Dichloroethane on the Nonprotein Sulphydryl Content of Rat Organs. D.A. Wiersma and I.G. Sipes, Dept. of Pharmacol. & Toxicol., College of Pharmacy, Univ. of Arizona, Tucson, AZ.

387  Inhibition of Sperm Energy Metabolism by 1,2-Dibromo-3-chloropropane (DBCP). W.M. Kluwe, A. Greenwell and F. Harrington, Nat’l Toxicol. Program, Nat’l Inst. of Env. Health Sci., Research Triangle Park, NC.
The Effect of In Vivo CCl₄ Exposure on Rat Liver Free Polysomes and In Vitro Protein Synthesis. S. Pavittaranon, J. Nelson and M.J. Brabec, Toxicol. Program, School of Pub. Health, Univ. of Michigan, Ann Arbor, MI.


Effect of Hypoxia on the Hepatic and Renal Toxicity of Several Haloforms in Mice. J.A. Zempel, G.J. Traiger and R.P. Hanzlik, Dept. of Pharmacol. & Toxicol., Med. School of Pharmacol, Univ. of Kansas, Lawrence, KS.

Quantitation of Carbon Tetrachloride Metabolism in Periportal (PP) and Pericentral (PC) Regions of the Liver Lobule. R.G. Thurman, F.C. Kauffman and V. Christenson, Depts. of Pharmacol., Univ. of North Carolina at Chapel Hill, NC; Univ. of Maryland, Baltimore, MD.


Effect of Perfluoro-N-decanic Acid on Cell Composition and Membranes. C.T. Olson, M.E. George and M.E. Andersen, AFAMRL/THT, Wright-Patterson Air Force Base, OH.

Correlation of Biotransformation-detoxication Parameters with 2-Hexanone (MBK), 2-Butanone (MEK) and Acetone-potentiated Chloroform (CHCl₃) Hepatotoxicity. L.A. Hewitt, C. Valiquette and G.L. Plaa, Dépt. de Pharmacologie, Université de Montréal, Montreal, Que., Canada.

Interaction of Carbon Tetrachloride with Rat Liver Mitochondrial DNA. G.N. Levy and M.J. Brabec, Toxicol. Program, School of Pub. Health, Univ. of Michigan, Ann Arbor, MI.

Effects of Aroclor 1254 on Rat Hepatic Glutathione (GSH), GSH-Reductase, GSH-Transferase and GSH-Peroxidase. L.W. Robertson, J. Merrill, I. Lambert and S. Safe, Veterinary Physiol. & Pharmacol., Texas A&M Univ., College Station, TX.

High Resolution, Isomer Specific Capillary Gas Chromatography of Firemaster BP-6 and FF-1. L. Robertson, M.D. Mullin and S. Safe, Dept. of Vet. Physiol. & Pharmacol., Texas A&M Univ., College Station, TX; U.S. EPA, Grosse Ile, MI.


Comparative In Vivo Genotoxicity and Acute Hepatotoxicity of Three 1,2-Dihaloethanes. R.D. Storer and R.B. Conolly, Toxicol. Program, School of Pub. Health, Univ. of Michigan, Ann Arbor, MI. Sponsor: R. Hartung.


1,2-Dibromo-3-chloropropane as a Substrate for Hepatic, Renal, and Testicular Glutathione S-Transferases in the Rat. G.E. Miller and A.P. Kulkarni, Toxicol. Program, Dept. of Env. & Ind. Health, Univ. of Michigan, Ann Arbor, MI.

In Vitro Metabolism of 1,1-Dichloroethylene (Vinylidene Chloride) by Rat Hepatic Microsomes and Mitochondria. R. Chen, M.J. Brabec and R.B. Conolly, Toxicol. Program, Dept. of Env. & Ind. Health, Univ. of Michigan, Ann Arbor, MI.

Thursday Morning, March 10, 1983
SYMPOSIUM 4: Current Concepts in Food Toxicology
(Co-sponsored by American College of Veterinary Toxicologists)

Julius Room
Co-Chairs: J.B. Hook, Michigan State Univ., East Lansing, MI
 J. Robens, U.S. Dept. of Agriculture, Beltsville, MD

Time (A.M.)
8:30  Introduction. J.B. Hook.
8:35  Toxic and Anti-nutritional Factors in Legumes. I.E. Liener, College of Biological Sciences, Univ. of Minnesota, St. Paul, MN.
9:05  Discussion.
9:45  Discussion.
9:55  Experimental In Vitro Approaches to Studying Xenobiotic Metabolism in Large Food Animals. L. Shull, Dept. of Env. Toxicol., Univ. of California, Davis, CA.
10:25 Discussion.
10:35 Halogenated Biphenyls in Cattle: Effects on Reproduction and Target Organs. L. Willett, Ohio Agricultural Research & Development Ctr., Wooster, OH.
11:05 Discussion.
11:15 Summary of USDA/Michigan State University Feasibility Study on Role of USDA in Food Toxicology Research. J. Robens, Food Safety & Health, Agricultural Research, U.S. Dept. of Agriculture, Beltsville, MD.
11:45 Discussion.
Thursday Morning, March 10, 1983

POSTER SESSION 5C: Inhalation V

Rear of Colosseum Exhibit Area


Displayed: 8:30 A.M. — 11:30 A.M.
Attended: 8:30 A.M. — 10:00 A.M. (Even Paper Numbers)
10:00 A.M. — 11:30 A.M. (Odd Paper Numbers)

Paper No.


420 Formation of Naphthalene Glutathione Adducts in Microsomes from Target and Non-target Tissues of the Mouse. A.R. Buckpitt, G. Smart and L. Bahnson, Dept. of Community & Env. Med., Univ. of California, Irvine, CA.

421 Effect of Treatment with Bronchiolar or Alveolar Cytotoxicants on the Formation of Bromobenzene-glutathione Conjugates in Lung Slices. N. Fakjian and A.R. Buckpitt, Community & Env. Med., Univ. of California, Irvine, CA.


426 Toxicity of Metallic Ions to Isolated Rat Alveolar Macrophages and Alveolar Type II Cells. V. Castranova, G.S. Jones and P.R. Miles, NIOSH, Morgantown, WV.


Inhalation Toxicity of Perfluorobutylhydrene in the Rat. R.L. Ferenz, B.A. Burgess and G.L. Kennedy, Jr., E.I. du Pont de Nemours & Co., Inc., Haskell Lab. for Toxicol. & Ind. Med., Newark, DE.


Lipid Peroxidation and Histamine Release from Rat Isolated Perfused Lung (IPL): A Potential Mechanism for Pulmonary O$_2$ Toxicity. A.J. Januszkiewicz, P.K. Wilson and M.D. Faiman, Dept. of Pharmacol. & Toxicol., Univ. of Kansas, Lawrence, KS.


Enhanced Acute Lung Damage Following the Administration of Corticosteroids. J.P. Kehrer, Dept. of Pharmacol., College of Pharmacy, Univ. of Texas at Austin, Austin, TX.

Comparative Study of Pulmonary Fibrosis in Fischer 344 Rats Induced by Bleomycin or Polypeomycin. K.L. Pavkov, Battelle, Columbus Labs., Columbus, OH. Sponsor: G.L. Fisher.


Development of a Murine Model of Pulmonary Emphysema for Use in Toxicological Studies. R. Valentine, R.B. Rucker, C.E. Chrisp and G.L. Fisher, Battelle Columbus Labs., Columbus, OH; Univ. of California, Davis, CA; Univ. of Michigan, Ann Arbor, MI.


**Thursday Afternoon, March 10, 1983**

**PLATFORM SESSION 14: Biochemical II**

**Colosseum II**

*Co-Chairs: M. Vore, Univ. of Kentucky, Lexington, KY  
J.S. Woods, Battelle Seattle Res. Ctr., Seattle, WA*

<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (P.M.)</th>
<th>Title</th>
<th>Authors and Affiliations</th>
</tr>
</thead>
<tbody>
<tr>
<td>443</td>
<td>2:00</td>
<td>Protection from Alloxan Diabetes by High Doses of Nicotinamide and a Metabolite N’-Methylnicotinimide</td>
<td>L.J. Fischer, R. Fisher and J. Falany, Toxicol. Ctr., Dept. of Pharmacol., Univ. of Iowa, Iowa City, IA.</td>
</tr>
<tr>
<td>444</td>
<td>2:15</td>
<td>Studies on Uroporphyrinogen Decarboxylase in Adult and Fetal Rat Liver</td>
<td>J.S. Woods and R.M. Kardish, NIEHS, NIH, Research Triangle Park, NC.</td>
</tr>
<tr>
<td>446</td>
<td>2:45</td>
<td>Binding of Cholic Acid to Putative Bile Acid Carriers: Effect of Pregnancy, Estrogen Treatment and Estrogen Glucuronides</td>
<td>M. Vore and A. Auansakul, Grad. Ctr. Toxicol., Dept. Pharmacol., Univ. of Kentucky, Lexington, KY.</td>
</tr>
<tr>
<td>447</td>
<td>3:00</td>
<td>Effects of Acetaminophen on Primary Cultures of Rat Kidney Epithelial Cells</td>
<td>M.A. Smith and D. Acosta, Dept. of Pharmacol. &amp; Toxicol., College of Pharmacy, Univ. of Texas, Austin, TX.</td>
</tr>
</tbody>
</table>
Subcellular Localization of Hepatocyte Injury Due to Metabolic Activation of Acetaminophen. D. Acosta and D.B. Mitchell, Univ. of Texas at Austin, Austin, TX; Procter & Gamble Co., Cincinnati, OH.


Microsomal Flavin Containing Monooxygenase (MFMO) Activity During Pregnancy in CD1 Mice. T.G. Osimitz and A.P. Kulkarni, Dept. of Env. & Ind. Health, Univ. of Michigan, Ann Arbor, Mi.

Thursday Afternoon, March 10, 1983

PLATFORM SESSION 15: Halogenated Hydrocarbons II

Colosseum III

Co-Chairs: L.R. Pohl, Nat'l Heart, Lung & Blood Inst., Bethesda, MD
D.R. Buhler, Oregon State Univ., Corvallis, OR

Paper No. Time (P.M.)

455 1:30 Metabolism of Trichloroethylene in Microsomal and Reconstituted Cytochrome P-450 Systems. R.E. Miller and F.P. Guengerich, Depts. of Pharmacol. and Biochem. and Ctr. in Env. Toxicol., Vanderbilt Univ., Nashville, TN.

456 1:45 Covalent Binding of Glutathione to Nucleic Acids by 1,2-Dibromoethane by Glutathione S-Transferase and in Isolated Hepatocytes. N. Ozawa and F.P. Guengerich, Dept. of Biochem. and Ctr. in Env. Toxicol., Vanderbilt Univ., Nashville, TN.


463  3:30  Delayed Wasting Syndrome in Rats Exposed to Tetrachloroazobenzene and Azoxybenzene. M.T.S. Hsia, B.L. Kreamer and L.E. Guagliardi, Env. Toxicol. Ctr. and Dept. of Entomol., Univ. of Wisconsin, Madison, WI.


465  4:00  Enhancement of Carrageenan and Dextran-induced Edemas by 2,3,7,8-Tetrachlorodibenzo-p-dioxin. M.H. Theobald, R.W. Moore, L.B. Katz and R.E. Peterson, Univ. of Wisconsin, Madison, WI.

466  4:15  Comparative Effects of 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) on Lipid Absorption in C57BL/6J and DBA/2J Mice. D.E. Chapman, R. Walden and C.M. Schiller, Lab. of Pharmacol., NIEHS/NIH, Research Triangle Park, NC.


<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (P.M.)</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>470</td>
<td>1:45</td>
<td>A Rapid and Easy Procedure to Detect Acute Bronchoconstriction Induced by Inhalation of Airborne Chemicals.</td>
<td>M. Matijak-Schaper and Y. Arlie, Toxicol. Lab., Grad. School of Pub. Health, Univ. of Pittsburgh, Pittsburgh, PA.</td>
</tr>
<tr>
<td>475</td>
<td>3:00</td>
<td>Pulmonary Clearance of Soluble and Insoluble Forms of Manganese.</td>
<td>D.B. Brown, S.G. Ober and R.P. Sharma, Toxicol. Program, Utah State Univ., Logan, UT.</td>
</tr>
</tbody>
</table>


Thursday Afternoon, March 10, 1983

POSTER SESSION 6A: General IV

Rear of Colosseum Exhibit Area

Organizer: R.C. Schnell, Univ. of Nebraska, Omaha, NE

Displayed: 1:30 P.M. — 4:30 P.M.
Attended: 1:30 P.M. — 3:00 P.M. [Even Paper Numbers]
3:00 P.M. — 4:30 P.M. [Odd Paper Numbers]

Paper No.


488 DFP Does Not Inhibit Lectin or Alloantigen Induced Transformation of Human Lymphocytes In Vitro. G.A.W. Waterhouse, G.L. Brandt and R.B. Forney, Dept. of Pharmacol. & Toxicol. and Dept. of Surgery, Indiana Univ. School of Med., Indianapolis, IN.


Six Month Feeding Study of Fenvalerate in Dogs. C.M. Parker, Shell Development Co., Houston, TX; V.J. Piccirillo, S.L. Kurtz and F.M. Garner, Borriston Labs. Inc., Temple Hills, MD.


Subchronic Dietary Toxicity of Trichlorobenzyl Chloride in the Rat. F.R. Johannsen and G.J. Levinskas, Dept. of Med. & Env. Health, Monsanto Co., St. Louis, MO.

Pathophysiology of Splenic Toxicity in Mice and Rats Following Oral Nitrobenzene (NB) Administration. R.S. Goldstein, R.D. Irons, D.E. Rickert, J.K. Davis and T.E. Hamm, Jr., CIIT, Research Triangle Park, NC.


Comparative Toxicological Evaluation of Two Triarylphosphate Based Hydraulic Fluids. C.L. Gaworski, E.R. Kinkead and J.D. MacEwen, Univ. of California, Toxic Hazards Res. Unit, Dayton, OH; A.P. D’Addario and R. Salomon, NMRI/ID and AFAMRL, Wright Patterson AFB, OH.


Investigation of the Toxicity of Gossypol in the Rat. J.C. Merrill, I. Lambert, L.W. Robertson, H.L. Kim and S. Safe, Dept. of Vet. Physiol. & Pharmacol., Texas A&M Univ., College Station, TX.


Effects of Species Variation and Primaquine Treatment on Serum Biochemical, Hematological and EKG Parameters in Anesthetized Monkeys. A.J. Verlangieri, J.P. DePriest and J.C. Kapeghian, *Dept. of Pharmacol., School of Pharm., Univ. of Mississippi, University, MS*, Sponsor: W.M. Davis.
Enhancement of the Sensitivity of the Buehler Method by Use of the Hill Top Chamber. M. Polikandritou, J.L. Lichtin and D.L. Conine, Dept. of Pharmacy, Univ. of Cincinnati; Hill Top Res., Inc., Cincinnati, OH.


Thursday Afternoon, March 10, 1983

SYMPOSIUM 5: (Neurotoxicology Section)
The Application of Neurophysiological Techniques to Toxicological Problems

Augustus Room

Chairwoman: D.E. Woolley, Univ. of California, Davis, CA

Time (P.M.)

1:30 Overview. D.E. Woolley.
1:40 Correlations Between In Vitro and In Vivo Mechanisms of Pyrethroid Insecticide Action. D.W. Gammon, Univ. of California, Berkeley, CA.
2:10 Discussion.
2:20 The Effects of Neurotoxicants on Kindling and Kindled Seizures. R.Joy and J. Stark, Univ. of California, Davis, CA.
2:50 Discussion.
3:00 Localization of the Neurophysiological Effects of Trimethylin and Insecticides on the Limbic System in the Awake, Unrestrained Rat. D. Woolley, L. Zimmer, Z. Hasan and K. Swanson, Univ. of California, Davis, CA.
3:30 Discussion.
3:40 The Use of Sensory Evoked Potentials in Toxicology. R.S. Dyer, U.S. EPA, Research Triangle Park, NC.
4:10 Discussion.
4:20 Peripheral and Spinal Correlates of Toxic Neuropathies as Revealed by Single Unit Recordings. H.E. Lowndes, New Jersey Med. School, Newark, NJ.
4:50 Discussion.
Thursday Afternoon, March 10, 1983

POSTER SESSION 6B: Metals III

Rear of Colosseum Exhibit Area

Organizer: J.J. Vostal, General Motors Corp., Warren, MI

Displayed: 1:30 P.M. — 4:30 P.M.
Attended: 1:30 P.M. — 3:00 P.M. (Even Paper Numbers)
3:00 P.M. — 4:30 P.M. (Odd Paper Numbers)

Paper No.

532
Similarity in the Acute Cytotoxic Response of Mammalian Cells to Mercury (II) and X-Rays: DNA Damage and Glutathione Depletion. O. Cantoni, R.M. Evans and M. Costa, Div. of Toxicol., Dept. of Pharmacol., Univ. of Texas, Med. School, Houston, TX.

533

534

535
Rat Liver Subcellular Distribution of Manganese in Manganese and Manganese-Bilirubin Induced Cholestasis. P. Ayotte and G.L. Plaa, Dépt. de Pharmacologie, Université de Montréal, Montreal, Que., Canada.

536

537

538

539

540
Studies on the Ultrastructural and Hematotoxic Effects of Bismuth in Rat Liver and Kidney. J.S. Woods and B.A. Fowler, NIEHS, NIH, Research Triangle Park, NC.

541
Modification of Cd-Induced Hepatotoxicity by Alteration of Hepatic Glutathione (GSH) Status. R.E. Dudley and C.D. Klaassen, Dept. of Pharmacol., Toxicol. & Therap., Univ. of Kansas Med. Ctr., Kansas City, KS.
A Mechanistic Study of Mercury Accumulation in the Kidney. A. Blacker and R.J. Richardson, Toxicol. Program, Dept. of Env. & Ind. Health, Univ. of Michigan, Ann Arbor, MI.

Role of an SH Carrier in Cadmium and Mercury Uptake by Hepatocyte Primary Cultures. R.J. Gerson and Z.A. Shaikh, Div. of Toxicol., Univ. of Rochester, Rochester, NY.

Genotoxicity of the Particulate Fraction of Alpha Nickel Subsulfide. J. Smith-Sonneborn, R.A. Palizzi, E.A. McCann and G.L. Fisher, Zool. & Physiol. Dept., Univ. of Wyoming, Laramie, WY; Battelle Columbus Labs., Columbus, OH.


The Uptake and Distribution of Lead and Mercury in Rat Kidney Epithelial Cells with and Without Nuclear Inclusion Bodies. M.G. Cherian and K. Rodgers, Dept. of Pathol., Univ. of Western Ontario, London, Ont., Canada.


Response of Hepatic and Renal Glutathione (GSH) and Related Enzyme Activities to Dietary Selenium (Se). M.H. Davies, B.A. Merrick, D.F. Birt and R.C. Schnell, Univ. Nebraska Med. Ctr., Dept. Pharmacodynam./Toxicol., College of Pharmacy, Omaha, NE.
Thursday Evening, March 10, 1983

**ANNUAL BANQUET**

7:00 P.M.

Julius Room

Open to all attendees and guests

Complimentary Wine

Courtesy, Charles River Breeding Laboratories, Inc.

---

Friday Morning, March 11, 1983

**PLATFORM SESSION 17: Biochemical III**

Colosseum II

*Co-Chairs: S. Laham, Health & Welfare Canada, Ottawa, Ont., Canada*

*S.T. Omaye, U.S. Dept. of Agriculture, Berkeley, CA*

<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Time (A.M.)</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>553</td>
<td>8:30</td>
<td>Effect of Extracellular Ca$^{2+}$ on Adriamycin Mediated Toxicity in Isolated Rat Hepatocytes</td>
<td>M.W. Fariss and D.J. Reed, Dept. of Biochem. Biophys., Oregon State Univ., Corvallis, OR.</td>
</tr>
<tr>
<td>554</td>
<td>8:45</td>
<td>A Study of Adriamycin-induced Cardiac Toxicity</td>
<td>M. George, V. Shirhatti and G. Krishna, NHLBI, Bethesda, MD. Sponsor: H.M. Maling.</td>
</tr>
<tr>
<td>556</td>
<td>9:15</td>
<td>Lead Induced Changes in Indices of Lipid Peroxidation in the Retina</td>
<td>D.M. Talsma and K.L. Stemmer, Univ. of Cincinnati, Kettering Lab., Cincinnati, OH.</td>
</tr>
<tr>
<td>557</td>
<td>9:30</td>
<td>Adriamycin Cardiotoxicity and Superoxide Dismutase in the Rat Heart</td>
<td>B.C. Lee and K.L. Stemmer, Univ. of Cincinnati Med. Ctr., Kettering Lab., Cincinnati, OH.</td>
</tr>
</tbody>
</table>
559 10:00 Influence of Selenium on Response to Toxins. P.M. Newberne, Dept. of Nutrition and Food Sci., Massachusetts Inst. of Tech., Cambridge, MA.


561 10:30 Role of Prostaglandin (PGF2α) in the Onset of Oxidant-induced Pulmonary Edema. R.C. Lindenschmidt, C.E. Patterson, R.A. Rhoades and R.B. Forney, Dept. of Pharmacol. & Toxicol. and Dept. of Physiol., Indiana Univ. School of Medicine, Indianapolis, IN.

562 10:45 Mechanisms in the Inflammatory Response and Genesis of Pulmonary Edema Resulting from Oxidizing Agent Exposure. P.L. Kenley, Univ. of Texas Med. School, San Antonio, TX; E.J. Fairchild, Univ. of Texas School of Pub. Health, Houston, TX.


566 11:45 Metabolic Distribution of Benzo(a)pyrene (BaP) in the Circulation of the Rodent. B.J. Kelman, D.L. Springer and R.B. Westerberg, Pacific Northwest Lab., Richland, WA.

Friday Morning, March 11, 1983

PLATFORM SESSION 18: Oncogenesis/Mutagenesis II

Colosseum III

Co-Chairs: F.A. De La Iglesia, Warner Lambert/Parke Davis Co., Ann Arbor, MI

A. Sivak, Arthur D. Little Inc., Cambridge, MA

Paper No. Time (A.M.)

567 8:30 A Comparison of Responses in the C3H-10T½ and BALB/c-3T3 Neoplastic Transformation Systems. A. Sivak and A.S. Tu, Arthur D. Little, Inc., Cambridge, MA.


Promotion of Liver Nodules in B6C3F1 Male Mice by Choline Deficiency and Phenoobarbital. J.L. de Camargo and P.M. Newberne, Dept. of Nutrition and Food Sci., Massachusetts Inst. of Tech., Cambridge, MA.


Phorbol Diester (PDE) Binding and Oxygen Metabolism in Differentiated HL-60 Cells. R.W. Lane, R.A. Carchman and J.F. Borzelleca, Dept. of Pharmacol., Med. College of Virginia, Richmond, VA.


Carcinogenesis Studies with Oxisuran, an Immunosuppressive Agent. F.A. de la Iglesia and E.J. McGuire, Pathol. Exp. Toxicol., Warner-Lambert/Parke-Davis Pharm. Res. Div., Ann Arbor, MI; Env. Ind. Health, Univ. of Michigan, Ann Arbor, MI.


Friday Morning, March 11, 1983

POSTER SESSION 7A: Environmental

Rear of Colosseum Exhibit Area

Organizer: G.L. Sprague, Stauffer Chemical Co., Richmond, CA

Displayed: 8:30 A.M. — 11:30 A.M.
Attended: 8:30 A.M. — 10:00 A.M. (Even Paper Numbers)
10:00 A.M. — 11:30 A.M. (Odd Paper Numbers)

Paper No.


583 Effects of Copper and Fenvalerate on Developing Steelhead Trout Exposed Continuously or Intermittently to the Toxicant. L.R. Curtis and W.K. Seim, Dept. of Fisheries and Wildlife, Oregon State Univ., Corvallis, OR. Sponsor: L.J. Weber.


1.1-Dichloroethylene (1,1-DCE)-Induced Lipid Peroxidation of Renal Microsomes. R. Luthra, G.M. Kyle and J.V. Bruckner, Dept. of Pharmacol., Div. of Toxicol., Univ. of Texas Med. School, Houston, TX.


Tissue and Subcellular Distribution of Rotenone in Rainbow Trout. W.H. Gingerich, Nat'l Fish. Res. Lab., U.S. Fish & Wildlife Serv., La Crosse, WI.


Friday Morning, March 11, 1983

POSTER SESSION 7B: General V

Rear of Colosseum Exhibit Area

Organizer: S.D. Murphy, Univ. of Texas Science Ctr., Houston, TX

Displayed: 8:30 A.M. — 11:30 A.M.
Attended: 8:30 A.M. — 10:00 A.M. (Even Paper Numbers)
10:00 A.M. — 11:30 A.M. (Odd Paper Numbers)

Paper No.


603 An Adaptation of the Jordan Method for Predicting Phototoxic Contact Dermatitis in Guinea Pigs. J. Kreuzmann and D.L. Conine, Dept. of Toxicol., Hill Top Research, Inc., Cincinnati, OH.

604 Evidence of a Reduced Set-point for Regulated Body Weight in Rats Treated with 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD). M.D. Seefeld and R.E. Peterson, Univ. of Wisconsin, Madison, WI.

605 The Production of Aflatoxin M1 for Toxicologic Studies. D.P.H. Hsieh, L.M. Beltran and D.W. Rice, Dept. of Env. Toxicol., Univ. of California, Davis, CA.

606 The Carcinogenicity of Aflatoxin M1 in the Adult Rats. D.P.H. Hsieh and B.H. Ruebner, Dept. of Env. Toxicol. and Dept. of Pathol., Univ. of California, Davis, CA.


Subchronic Neurotoxicity of N-Methylolacrylamide in Fischer 344 Rats. P. Kurtz, D. Thake, D. Gerken, A. Peters and R. Chhabra, Battelle Memorial Inst., Columbus, OH; NIEHS/NTP, Research Triangle Park, NC.


Acute and Short-term Toxicity of Formaldehyde Dimethylhydrazone. W.C. Keller, T.R. Boosinger, R.H. Bruner and M.E. Andersen, AFAMRL/TH, Wright-Patterson AFB, OH.


Friday Morning, March 11, 1983

POSTER SESSION 7C: Metabolism V

Rear of Colosseum Exhibit Area

Organizer: T.A. Marks, Upjohn Co., Kalamazoo, MI

Displayed: 8:30 A.M. — 11:30 A.M.
Attended: 8:30 A.M. — 10:00 A.M. (Even Paper Numbers)
10:00 A.M. — 11:30 A.M. (Odd Paper Numbers)

Paper No.


The Disposition and Metabolism of Etylenethiourea in Maternal, Fetal and Neonatal Tissues After Perinatal Exposure of Rat and Mouse Dams. A.E. Chin, P.J. Kurtz, B.D. Carlton, A.C. Peters and R.S. Chhabra, Battelle Memorial Inst., Columbus, OH; Nat’l Toxicol. Program, NIEHS, Research Triangle Park, NC.


Affinity of [14C]Nitrosopyrrolidine and Metabolites for Mouse Epithelial Tissues. C. Marlowe and W.J. Waddell, Dept. of Pharmacol. & Toxicol., Univ. of Louisville, Louisville, KY.

Effects of Trans-Stilbene Oxide on Hepatic and Placental GSH Transferase and Hepatic Dimethyl Nitrosamine Demethylation During Pregnancy. A. Kulkarni, P. Ronan, L. Radulovic and B. Strohm, Dept. of Env. & Ind. Health, School of Pub. Health, Univ. of Michigan, Ann Arbor, MI.

Strain Differences in the In Vivo Metabolism of 3-Methylcholanthrene (MC) in Pregnant Mice. J.D. George and J.M. Manson, Dept. Env. Health and Obstet. & Gynecol., Univ. of Cincinnati, Cincinnati, OH.

The Kinetic Behavior of 14C-2,4,5,2',4',5'-Hexachlorobiphenyl (6-CB) During In Situ Liver Perfusion in the Mouse. L.A. Rau, S. Weitman, J.J. Lech and M. J. Vodicnik, Dept. of Pharmacol. & Toxicol., Med. College of Wisconsin, Milwaukee, WI.


Effects of Butylated Hydroxytoluene, Indole-3-carbinol, and β-Naphthoflavone on the Metabolism and Genotoxicity of Affatoxin B1 in the Rat. M. Fukayama and D.P.H. Hsieh, Dept. of Env. Toxicol., Univ. of California, Davis, CA.

Interaction of Clostridium difficile Toxins and Hepatic Drug Metabolizing Enzymes in the Mouse. M. Ehrich, Virginia/ Maryland Regional College Vet. Med., Blacksburg, VA.


Friday Morning, March 11, 1983
POSTER SESSION 7D: Metals IV

Rear of Colosseum Exhibit Area
Organizer: B.J. Kelman, Battelle Pacific N.W. Labs., Richland, WA

Displayed: 8:30 A.M. — 11:30 A.M.
Attended: 8:30 A.M. — 10:00 A.M. (Even Paper Numbers)
10:00 A.M. — 11:30 A.M. (Odd Paper Numbers)

Paper No.

658 Unique Effect of HgCl₂ on the DNA of CHO Cells as Compared with the Effect of Seven Other Metal Compounds. O. Canton, S.H. Robison, N.T. Christie and M. Costa, Div. of Toxicol., Dept. of Pharmacol., Univ. of Texas, Medical School, Houston, TX.

659 Selenium Prevention of Manganese-induced Alterations in Drug Metabolism. M.J. Deimling and R.C. Schnell, Dept. Pharmacodynam./Toxicol., College of Pharmacy, Univ. of Nebraska Med. Ctr., Omaha, NE.

660 Species and Sex Differences in Selenium Inhibition of Hepatic Microsomal Drug Metabolism in Rodents. B.A. Merrick, K.L. Johnson, K. Kester, M.H. Davies and R.C. Schnell, Dept. of Pharmacodynam./Toxicol., College of Pharmacy, Univ. of Nebraska Med. Ctr., Omaha, NE.


Organometal-induced Antinociception: A Time and Dose Response Comparison of Triethyl Lead, Trimethyl Lead, and Trimethyl Tin. T.J. Walsh and H.A. Tilson, Lab. of Behav. Neurol. & Toxicol., NIEHS, Research Triangle Park, NC.

Trimethyltin Disruption of Reflex Inhibition Indicates an Ototoxic Effect. J.S. Young and L.D. Fechter, Johns Hopkins School of Hyg. & Pub. Health, Baltimore, MD.

Effect of Trimethyltin (TMT) on Hepatic and Extrahepatic Glutathione (GSH) Levels in the Mouse. S.V. Doctor, L.G. Sultatos and S.D. Murphy, Div. of Toxicol., Dept. of Pharmacol., Univ. of Texas Health Sci. Ctr., Houston, TX.


Triethyltin-induced Hearing Loss: A Study Using Pure Tone Auditory Brainstem Responses. B.N. Evans, A. Yonovitz and D.A. Fox, Speech & Hearing Inst., Univ. of Texas Grad. School of Biomed. Sci. and College of Optometry, Univ. of Houston, Houston, TX.


The Effect of Thiamin on the Tissue Distribution and Excretion of Lead. L.B. Sasser, G.G. Hall, G.R. Bratton and J. Zmudzki, Pacific Northwest Lab., Richland, WA; Electric & Gas Comm., Columbia, SC; Texas A&M Univ., College Station, TX.


Comparative Acute Toxicity of Copper and Zinc Cyanide. O.L. Daishell and G.L. Kennedy, Jr., E.I. du Pont de Nemours & Co., Inc., Haskell Lab., For Toxicol. & Ind. Med., Newark, DE.
Friday Morning, March 11, 1983

SYMPOSIUM 6:
Biological Effects of Chemical Interactions

Julius Room

Co-Chairs: W.O. Berndt, Univ. of Nebraska Med. Ctr., Omaha, NE
H.M. Mehendale, Univ. of Mississippi Med. Ctr., Jackson, MS

Time (A.M.)

8:30  Introduction. W.O. Berndt

8:35  Modulation of Carcinogenesis. G.M. Williams, Associate
     Director, American Health Foundation, Naylor Dana Inst. for
     Disease Prevention, Valhalla, NY.

9:00  Discussion.

9:10  Potentiation of Teratogenesis. E.J. Ritter, Research Pediatrics,
     Children's Hospital, Univ. of Cincinnati College of Med. and
     Research Foundation, Cincinnati, OH.

9:30  Discussion.

9:45  Biochemical Interactions and Nephrotoxicity. J.B. Hook, Ctr.
     for Env. Toxicol., Michigan State Univ., East Lansing, MI.

10:10 Discussion.

10:20 Potentiation of Halomethane Hapatotoxicity. H.M. Mehendale,
     Dept. of Pharmacol. & Toxicol., Univ. of Mississippi Med. Ctr.,
     Jackson, MS.

10:45 Discussion.

10:55 Mechanisms of Toxicological Interactions Involving Organophosphate Insecticides. S.D. Cohen, School of Pharmacy,
     Univ. of Connecticut, Storrs, CT.

11:20 Discussion.

11:30 Compromised Immune System. R.P. Sharma, Dept. of Animal,
     Dairy & Vet. Sciences, Utah State Univ., Logan, UT.

11:55 Discussion.
OFFICERS (1982-1983)
Robert L. Dixon, President
Gabriel L. Plaa, Vice-President
Frederick W. Oehme, Vice-President Elect
J. Wesley Clayton, Jr., Secretary
Richard S. Waritz, Treasurer

COUNCILORS
John Doull (1981-1983)
James E. Gibson (1982-1984)
A. Wallace Hayes (1982-1984)
Ian C. Munro (1981-1983)
Robert B. Forney, Past President

EXECUTIVE SECRETARY
William E. McCormick
475 Woll Ledges Parkway
Akron, OH 44311-1087
(216) 762-2289

OFFICE OF THE SECRETARY
Chemistry Building 320
University of Arizona
Tucson, AZ 85721
(602) 626-4558

COMMITTEES, BOARDS, AND OTHER APPOINTMENTS
1982-1983

ELECTED COMMITTEES

Education Committee
(John Doull*)
Anne P. Autor (1981-1983), Chairwoman
Gary P. Carlson (1982-1984)
Paul E. Morrow (1982-1984)
John A. Thomas (1982-1983)

Membership Committee
(Robert L. Dixon*)
Robert M. Hehir (1980-1983), Chairman
Clifford I. Chappel (1980-1983)
Michael A. Gallo (1982-1985)
Curtis D. Klaassen (1981-1984)
I. Glenn Sipes (1982-1985)
APPOINTED COMMITTEES

Animals in Research Committee
(Ian C. Munro*)
Gordon W. Newell, Chairman
Arthur L. Aronson
Robert T. Drew
Bruce A. Fowler
Mary C. Henry
Mark Hite
John H. Mennear
R. Craig Schnell
James T. Stevens
Robert J. Weir

Historian
Harry W. Hays

Information Handling Committee
(Robert L. Dixon*)
Elton R. Homan, Chairman
George J. Cosmides
Robert R. Maronpot
Norbert P. Page
Arthur A. Wykes

Awards Committee
(Robert B. Forney*)
Robert B. Forney, Chairman
James E. Gibson
A. Wallace Hayes
Florence K. Kinoshita
Orville E. Paynter

IUTOX Delegates
Perry J. Gehring, Chairman
Evelyn G. Burtis
J. Wesley Clayton
Frederick W. Oehme
Richard S. Waritz
James E. Gibson (Alternate)
A. Wallace Hayes (Alternate)

Board of Publications
(Gabriel L. Plaa*)
Emil A. Pfitzer (1981-1983), Chairman
William W. Carlton, Auditor
Robert L. Dixon, President
Paul B. Hammond (1981-1983)
A. Wallace Hayes, Auditor
Gabriel L. Plaa, Auditor
Philip G. Watanabe, Auditor

Nominating Committee
(J. Wesley Clayton*)
Perry J. Gehring, Chairman
William O. Berndt
Evelyn G. Burtis
Robert T. Drew
Gary L. Lage
Timothy D. Phillips

Burroughs Wellcome Advisory Scholarship Committee
(Robert L. Dixon*)
Tom S. Miya, Chairman
Harold J. Fallon, Consultant
Perry J. Gehring
Ernest Hodgson

Past Presidents' Task Group A: Constitution
(Gabriel L. Plaa*)
Tom S. Miya, Chairman
Joseph F. Borzelleca
Frederick Coulston
Seymour L. Friess
Wayland J. Hayes, Jr.
Harold C. Hodge
Paul S. Larson
Ted A. Loomis
Harold M. Peck
John A. Zapp, Jr.

*Council Liaison
Past Presidents’ Task Group B - Headquarters
(Robert B. Forney*)
Robert A. Scala, Chairman
Victor A. Drill
Perry J. Gehring
Leon Golberg
Harry W. Hays
Sheldon A. Murphy
Robert L. Roudabush
Verald K. Rowe
C. Boyd Shaffer
Carroll S. Weil

Program Committee
(Frederick W. Oehme*)
Frederick W. Oehme, Chairman
William O. Berndt (1982-1985)
Donald J. Ecobichon (1981-1984)
John L. Emmerson (1981-1984), Chairman, Poster Session
Frederick P. Guengerich (1982-1985)
Jerry B. Hook (1980-1983)
Roger O. McClellan (1980-1983)
Joseph E. Manno (1981-1984)
Mary Vore (1980-1983)

Regulatory Affairs and Legislative Assistance Committee
(Richard S. Waritz*)
Marshall Steinberg, Chairman
Kenneth C. Back
Paul E. Brubaker
Gio B. Gori
Frederick R. Johannsen
John G. Keller
Peter D. Unger

Professional Relations and Standards Committee
(John Doull*)
Roger O. McClellan, Chairman
Loren D. Koller
Charles F. Reinhardt
William E. Rinehart
R. Craig Schnell
Robert G. Tardiff
Ralph C. Wands
Anne M. Wolven-Garrett

*Council Liaison
LIAISON REPRESENTATIVES

American Academy of Clinical Toxicology
   Frederick W. Oehme
American Accreditation Association for Laboratory Animal Care
   Edward J. Gralla (Delegate)
American Association of Anesthesiologists
   A.J. Gandolfi.
American Association for Cancer Research
   Richard H. Adamson
American Association for Clinical Chemistry
   Barry S. Levine
American Association of Pathologists
   Bruce A. Fowler
American Association for Poison Control Centers
   Anthony R. Temple
American Board of Medical Toxicology
   Barry H. Rumack
American Board of Toxicology
   C.J. Terhaar
American Board of Veterinary Toxicology
   Gary D. Osweller
American College of Toxicology
   Marshall Steinberg
American College of Veterinary Pathology
   William W. Carlton
American College of Veterinary Toxicologists
   Frederick W. Oehme
American Industrial Hygiene Association
   Robert T. Drew
American Institute of Nutrition
   Stanley T. Omaye
American Physiological Society
   Robert A. Scala
American Society for Biological Chemistry
   Jerold A. Last
American Society for Pharmacology & Experimental Therapeutics
   Frederick P. Guengerich
British Toxicology Society
   I.F.H. Purchase
Environmental Mutagen Society
   David J. Brusick
European Society of Toxicology
   Be Holmstedt
Institute of Food Technology
   Stanley T. Omaye

Society of Environmental Toxicology and Chemistry
   John G. Keller

Society for Epidemiological Research
   James S. Woods

Society for Risk Analysis
   John G. Keller

Society of Toxicologic Pathologists
   John R. McCoy

Society of Toxicology Newsletter
   J. Wesley Clayton

Society of Toxicology Regional Chapters
   James E. Gibson

Society of Toxicology Specialty Sections
   A. Wallace Hayes

Teratology Society
   Raymond D. Harbison

Tissue Culture Association
   Daniel Acosta
PAST PRESIDENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harold C. Hodge</td>
<td>1961-1962</td>
</tr>
<tr>
<td>C. Boyd Shaffer</td>
<td>1962-1963</td>
</tr>
<tr>
<td>Paul S. Larson</td>
<td>1963-1964</td>
</tr>
<tr>
<td>Harry W. Hays</td>
<td>1964-1965</td>
</tr>
<tr>
<td>Frederick Coulston</td>
<td>1965-1966</td>
</tr>
<tr>
<td>Verald K. Rowe</td>
<td>1966-1967</td>
</tr>
<tr>
<td>John A. Zapp, Jr.</td>
<td>1967-1968</td>
</tr>
<tr>
<td>Carrol S. Weil</td>
<td>1968-1969</td>
</tr>
<tr>
<td>Ted A. Loomis</td>
<td>1969-1970</td>
</tr>
<tr>
<td>Robert L. Roudabush</td>
<td>1970-1971</td>
</tr>
<tr>
<td>Wayland J. Hayes, Jr.</td>
<td>1971-1972</td>
</tr>
<tr>
<td>Victor A. Drill</td>
<td>1972-1973</td>
</tr>
<tr>
<td>Joseph F. Borzelleca</td>
<td>1973-1974</td>
</tr>
<tr>
<td>Sheldon D. Murphy</td>
<td>1974-1975</td>
</tr>
<tr>
<td>Seymour L. Friess</td>
<td>1975-1976</td>
</tr>
<tr>
<td>Robert A. Scala</td>
<td>1976-1977</td>
</tr>
<tr>
<td>Harold M. Peck</td>
<td>1977-1978</td>
</tr>
<tr>
<td>Leon Golberg</td>
<td>1978-1979</td>
</tr>
<tr>
<td>Tom S. Miya</td>
<td>1979-1980</td>
</tr>
<tr>
<td>Perry J. Gehring</td>
<td>1980-1981</td>
</tr>
<tr>
<td>Robert B. Forney</td>
<td>1981-1982</td>
</tr>
</tbody>
</table>
# AWARDS

<table>
<thead>
<tr>
<th>Achievement</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1967</td>
<td>G.L. Plaa</td>
</tr>
<tr>
<td>1968</td>
<td>A.H. Conney</td>
</tr>
<tr>
<td>1969</td>
<td>S.S. Epstein</td>
</tr>
<tr>
<td>1970</td>
<td>S.D. Murphy</td>
</tr>
<tr>
<td>1971</td>
<td>Y. Alarie</td>
</tr>
<tr>
<td>1972</td>
<td>R.L. Dixon</td>
</tr>
<tr>
<td>1973</td>
<td>No Award</td>
</tr>
<tr>
<td>1974</td>
<td>M.F. Cranmer</td>
</tr>
<tr>
<td>1975</td>
<td>I.C. Munro</td>
</tr>
<tr>
<td>1976</td>
<td>C.D. Klaassen</td>
</tr>
<tr>
<td>1977</td>
<td>J.E. Gibson</td>
</tr>
<tr>
<td>1978</td>
<td>R.D. Harbison</td>
</tr>
<tr>
<td>1979</td>
<td>M.R. Boyd</td>
</tr>
<tr>
<td>1980</td>
<td>P.G. Watanabe</td>
</tr>
<tr>
<td>1981</td>
<td>No Award</td>
</tr>
<tr>
<td>1982</td>
<td>F.P. Guengerich</td>
</tr>
<tr>
<td></td>
<td>1975</td>
</tr>
<tr>
<td></td>
<td>1976</td>
</tr>
<tr>
<td></td>
<td>1977</td>
</tr>
<tr>
<td></td>
<td>1978</td>
</tr>
<tr>
<td></td>
<td>1979</td>
</tr>
<tr>
<td></td>
<td>1980</td>
</tr>
<tr>
<td></td>
<td>1981</td>
</tr>
<tr>
<td></td>
<td>1982</td>
</tr>
</tbody>
</table>

**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 |
| 1979        | R. Fradkin |
|             | E.J. Ritter |
|             | W.J. Scott |
|             | J.G. Wilson |
| 1980        | J.A. Last |
|             | P.F. Moore |
|             | O.G. Raabe |
|             | B.K. Tarkington |
| 1981        | Y. Alarie |
|             | M. Brady |
|             | C. Dixon |
|             | M. Karol |
| 1982        | M.E. Andersen |
|             | M.L. Gargas |
|             | L.J. Jenkins, Jr. |
|             | R.A. Jones |
|             | 1980      | A.H. Conney |
|             | 1981      | G.L. Plaa |
|             | 1982      | G.M. Williams |

**Arnold J. Lehman**

| 1980        | A.H. Conney |
| 1981        | G.L. Plaa |
| 1982        | G.M. Williams |

**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 |
| 1979        | D.W. Fassett |
| 1980        | B.L. Oser |
| 1981        | J.H. Weisburger |
| 1982        | H.M. Peck |
Distinguished Fellow

The following have been given the Distinguished Fellow Award:

Joseph F. Borzelleca, Ph.D.
Julius M. Coon, M.D., Ph.D.
Frederick Coulston, Ph.D.
William B. Deichmann, M.D., Ph.D.
Victor A. Drill, M.D., Ph.D.
David W. Fassett, M.D.
O. Garth Fitzhugh, Ph.D.
Seymour L. Fries, Ph.D.
Leon Golberg, M.B., D.Sc., D. Phil.
Wayland J. Hayes, Jr., M.D., Ph.D.
Harry W. Hays, Ph.D.
Harold C. Hodge, Ph.D.
Don D. Irish, Ph.D.

Paul S. Larson, Ph.D.
Ted A. Loomis, M.D., Ph.D.
Sheldon D. Murphy, Ph.D.
Harold M. Peck, M.D.
Robert L. Roudabush, Ph.D.
Verald K. Rowe, Sc.D.
Robert A. Scala, Ph.D.
C. Boyd Shaffer, Ph.D.
Henry F. Smyth, Jr., Ph.D.
Herbert E. Stokinger, Ph.D.
Carrol S. Weil
John A. Zapp, Jr., Ph.D.
Tuesday Afternoon, March 8, 1983
SPECIALTY SECTION MEETINGS
Mechanisms
6:00 P.M.
Julius Room
Robert Snyder, Presiding

********

Wednesday Afternoon, March 9, 1983
5:30 P.M.

Inhalation
Neros Room
James T. Stevens, Presiding

The first Inhalation Research Award
will be presented

********

Metals
Colosseum II
Zahir A. Shaikh, Presiding
Cash Bar

********

Neurotoxicology
Colosseum III
Toshio Narahashi, Presiding
Cash Bar

********

Reproductive Toxicology
Julius Room
E. Marshall Johnson, Presiding

********

Each of the above is open to all current and prospective
members of the respective section
<table>
<thead>
<tr>
<th>Meeting</th>
<th>Year</th>
<th>Dates</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>1984</td>
<td>March 11-16</td>
<td>Atlanta Hilton</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Atlanta, GA</td>
</tr>
<tr>
<td>24</td>
<td>1985</td>
<td>March 17-22</td>
<td>Town and Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>San Diego, CA</td>
</tr>
<tr>
<td>25</td>
<td>1986</td>
<td>March 2-7</td>
<td>Shamrock Hilton</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Houston, TX</td>
</tr>
<tr>
<td>26</td>
<td>1987</td>
<td>March 15-20</td>
<td>Washington Hilton</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Washington, DC</td>
</tr>
</tbody>
</table>