

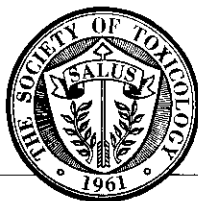


**Tenth  
Annual  
Meeting**

**PROGRAM**



**SOCIETY  
OF  
TOXICOLOGY**



**Shoreham Hotel  
Washington, D. C.  
March 7-11, 1971**



**SOCIAL EVENTS**

**Monday, 8 March 1971**

Cocktail Party—6:30 P.M.—Empire Room  
(Cash Bar)

**Tuesday, 9 March 1971**

Banquet—7:00 P.M.—Regency Ballroom  
Tickets available at Registration Desk

**Ladies Hospitality Room ..... Committee Room**

Monday, Tuesday, Wednesday, 8, 9, 10 March 1971

8:00 A.M.-5:00 P.M.

Thursday, 11 March 1971

8:00 A.M.-Noon

**SPECIAL SERVICES**

**Placement Bureau ..... Cabinet Room**

George J. Levinskas, Director

Sunday, 7 March 1971

2:00 P.M.-10:00 P.M.

Monday, Tuesday, Wednesday,  
8, 9, 10 March 1971

9:00 A.M.-5:00 P.M.

Thursday, 11 March 1971

9:00 A.M.-12:00 Noon

**Meeting Headquarters ..... Press Room**

Sunday, Monday, Tuesday, Wednesday,  
7, 8, 9, 10 March 1971

9:00 A.M.-9:00 P.M.

Thursday, 11 March 1971

9:00 A.M.-12:00 Noon

## OFFICERS

ROBERT L. ROUDABUSH ..... *President*  
WAYLAND J. HAYES, JR.....*President-Elect*  
JOSEPH F. BORZELLEGA ..... *Secretary*  
DONALD D. MCCOLLISTER ..... *Treasurer*  
TED A. LOOMIS ..... *Past President*

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(Consists of officers and four elected members)

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FRED H. SNYDER.....1969-71  
KENNETH P. DUBOIS.....1970-72  
JOHN P. FRAWLEY.....1970-72

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RALPH C. WANDS.....1970-72

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ROBERT C. ANDERSON.....1969-72  
EDWARD D. PALMES.....1970-73

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JOHN P. FRAWLEY

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National Research Council, National Academy of Sciences

V. K. ROWE

(1968-71)

### Epoxy Resins, K68 Committee

WILLIAM E. RINEHART

RICHARD L. HOLLINGSWORTH

### Panel on Toxicology Terminology

GABRIEL L. PLAA

FREDERICK REIDERS

HENRY F. SMYTH, JR.

### Placement

GEORGE J. LEVINSKAS

### Z-37

HAROLD N. MACFARLAND

NORMAN G. WHITE

March 8, 1971

**MONDAY MORNING—DIPLOMAT ROOM**

*Chairman:* FRED SPERLING

*Assisted by:* GEORGE COSMIDES, DONALD FLICK

- 8:50 1. Sex Related Disposition of Cyclacillin (Wy-4508) and Associated Renal Changes in Rats. W. E. Tucker, H. W. Ruelius, F. W. Janssen, and H.P.K. Agersborg, Jr., Research Division, Wyeth Laboratories, Inc., Radnor, Pennsylvania.
- 9:10 2. Chromomycin A<sub>3</sub> (NSC-58 514): Preclinical Pharmacological Evaluation in Dogs and Monkeys. U. Schaeppi, G. R. Thompson, R. W. Fleischman, V. Ilievski, H. Rosenkrantz, D. A. Cooney, and R. D. Davis, Mason Research Institute, Worcester, Massachusetts and Laboratory of Toxicology, National Cancer Institute, Bethesda, Maryland.
- 9:30 3. Comparison of Behavioral Effects of Imipramine in Monkeys through Continuous Avoidance Operant Schedules. S. Fielding, M. L. Miller, T. McGreevy, and M. Cornfeldt, Research Department CIBA Pharmaceutical Co., Summit, New Jersey. (Sponsor: H. Lal.)
- 9:50 4. Interactions of the Tranquilizer Molindone with Other Drugs in Toxicity Studies. H. Blumberg and H. S. Rowe, Endo Laboratories, Inc., Garden City, New York.

*10 MINUTE BREAK*

- 10:20 5. Effect of Nicotine on the Performance Behavior of Normal and Reserpinized Male Rats. J. M. Singh and G. D. Byrd, Department of Pharmacology, Xavier University of Louisiana, College of Pharmacy, New Orleans, Louisiana.
- 10:40 6. Animal Safety Evaluation Studies on the Antipsychotic Phenothiazine, Mesoridazine. R. J. Van Ryzin, S. E. Carson, H. A. Hartman, and J. H. Trapold, SANDOZ Pharmaceuticals, Inc., Hanover, New Jersey and Food and Drug Research Laboratories, Inc., Maspeth, New York.
- 11:00 7. Effect of Nicotine, Epinephrine and Norepinephrine on the Enzyme Thrombin and Substrate Fibrinogen. M. D. Singh and J. M. Singh, Department of Pharmacology, Xavier University of Louisiana, College of Pharmacy, New Orleans, Louisiana.
- 11:20 8. Rapid Forensic and Biomedical Identification of Drugs. R. W. Warfield and R. P. Maickel, Department of Pharmacology, Medical Science Program, Indiana University, Bloomington, Indiana.
- 11:40 9. Metabolism of a New, Labeled Phenanthrene Methanol with Pronounced Antimalarial Activity. C. C. Smith and W. Weigel, Department of Environmental Health, University of Cincinnati, College of Medicine, Cincinnati, Ohio.
- 12:00 10. Biosynthesis of Nitrosopiperidine from Nitrite or Nitrate and Piperidine in the Small Intestine of the Rat. B. S. Alam, I. B. Saporoschetz, and S. S. Epstein, Children's Cancer Research Foundation, Inc., and Harvard Medical School, Boston, Massachusetts.

March 8, 1971

**MONDAY MORNING—PALLADIAN ROOM**

*Chairman:* JIRO KODAMA

*Assisted by:* D. CLIFFORD JESSUP, ARTHUR PALLOTTA

- 8:50 11. The Effect of Carbaryl on Reproduction in the Monkey (*M. mulatta*). W. J. Dougherty, L. Golberg, and F. Coulston. Institute of Experimental Pathology and Toxicology, The Albany Medical College of Union University, Albany, New York.
- 9:10 12. Observations on the Alteration by Carbaryl of Smooth Muscle Preparation Responses to Nor-epinephrine. J. A. Santolucito, A. Hassan, and E. R. Whitcomb, Perrine Primate Research Branch, US-PHS, Perrine, Florida. (Sponsor: W. F. Durham.)
- 9:30 13. Comparative Metabolic Profiles of Carbaryl by Kidney, Liver, and Lung of the Dog and Rat using an Organ Maintenance Technique. B. H. Chin and L. J. Sullivan, Carnegie-Mellon University, Pittsburgh, Pennsylvania. (Sponsor: C. P. Carpenter.)
- 9:50 14. The Metabolism of Carbaryl (1-Naphthyl N-Methylcarbamate) by Tobacco Cells in Suspension Culture. R. K. Locke and R. L. Baron, Division of Pesticide Chemistry and Toxicology, Bureau of Foods and Pesticides, FDA, Washington, D.C. (Sponsor: C. H. Williams.)

10 MINUTE BREAK

- 10:20 15. Inhibition of Rat Tissue Carboxylesterases and Cholinesterase by Abate (O,O,O', O'-tetramethyl O, O'-thiodi-p-phenylene phosphorothioate). S. D. Murphy and K. L. Cheever, Department of Physiology, Harvard School of Public Health, Boston, Massachusetts .
- 10:40 16. The Effects of Chronic Disulfoton Treatment on the Cholinesterase Activity in the Rat. A. Modak, L. Barley, S. Weintraub, and W. B. Stavinoha, Department of Pharmacology, University of Texas Medical School at San Antonio, San Antonio, Texas.
- 11:00 17. Differences in the Stereospecificities of Cholinesterases and Cholinergic Receptors. B. V. Rama Sastry and H. C. Cheng, Department of Pharmacology, School of Medicine, Vanderbilt University, Nashville, Tennessee.
- 11:20 18. Sulfhydryl Groups in the Vicinity of Mammalian Cholinergic Receptors and their Implication in the Toxicity of Mercurials. B. V. Rama Sastry, Department of Pharmacology, School of Medicine, Vanderbilt University, Nashville, Tennessee.
- 11:40 19. The Toxicity of Siduron, A Substituted Urea Herbicide. H. Sherman, Haskell Laboratory for Toxicology and Industrial Medicine, E. I. DuPont de Nemours & Co., Wilmington, Delaware.
- 12:00 20. Metabolism of a New Carcinogen Related to Benzidine. S. Laham, Environmental Toxicology Programme, Occupational Health Division, Environmental Health Centre, Department of National Health and Welfare, Ottawa, Ontario, Canada.

March 8, 1971

**MONDAY MORNING—FORUM ROOM**

*Chairman:* ROBERT DIXON

*Assisted by:* BERNARD BECKER, LAURENCE C. K. WONG

- 8:50 21. Incidence of Teratological Anomalies in Control Charles River C-D Strain Rats. B. N. Banerjee and R. S. Durlow, Woodard Research Corp., Herndon, Virginia.
- 9:10 22. Pre- and Postnatal Studies on 2,4,5-T, 2,4-D and Their Derivatives in Wistar Rats. K. S. Khera, B. L. Huston, and W. P. McKinley, Food and Drug Directorate, Research Laboratories, Ottawa, Ontario, Canada .
- 9:30 23. Mutagenic and Teratogenic Studies with Lead Acetate and Tetraethyl Lead. G. Kennedy, D. Arnold, M. L. Keplinger, and J. C. Calandra, Industrial BIO-TEST Laboratories, Inc., Northbrook, Illinois.
- 9:50 24. Reproduction and Teratology Studies with Carbofuran. J. F. McCarthy, O. E. Fancher, G. L. Kennedy, M. L. Keplinger, and J. C. Calandra, Industrial BIO-TEST Laboratories, Inc., Northbrook, Illinois and Niagara Chemical Division, FMC Corporation, Middleport, New York.

*10 MINUTE BREAK*

- 10:20 25. Drug Effects on Spermatogenesis Studied by Velocity Sedimentation Cell Separation. I. P. Lee and R. L. Dixon, Laboratory of Toxicology, National Cancer Institute, Bethesda, Maryland.
- 10:40 26. Mutagenic Studies with 6-Amino Nicotinamide in Rats. R. F. Leehr, G. E. Cox, S. Carson, S. M. Reimer, and E. E. Vogin, Food and Drug Research Laboratories, Inc., Maspeth, New York.
- 11:00 27. The Embryotoxic and Teratogenic Effects of Various Therapeutic Agents in the Fetal Mouse and Rabbit. K. T. Szabo, S. M. Frec, H. A. Birkhead, Y. J. Kang, E. Alston, and M. Henry, Smith Kline and French Laboratories, Philadelphia, Pennsylvania.
- 11:20 28. Teratogenicity of a Group of Phthalate Esters in Rats. A. R. Singh, W. H. Lawrence, and J. Autian, Materials Science Toxicology Laboratories, College of Dentistry and College of Pharmacy, University of Tennessee Medical Units, Memphis, Tennessee.
- 11:40 29. Comparative Studies on the Absorption of <sup>3</sup>H-Thalidomide in Rabbits and Rats. G. R. Keller and D. A. Blake, Department of Pharmacology and Toxicology, School of Pharmacy, University of Maryland, Baltimore, Maryland.
- 12:00 30. A Comparison of the Teratogenic Properties of Sodium Salicylate, Sodium Benzoate, and Phenol. J. L. Minor and B. A. Becker, Oakdale Toxicology Center, Department of Pharmacology, College of Medicine, University of Iowa, Iowa City, Iowa.



March 8, 1971

**MONDAY AFTERNOON—PALLADIAN ROOM**

**Symposium**

**Dose Response in the Appraisal  
of Toxicologic Effects**

**1:30 Introduction**—Lloyd W. Hazleton, Chairman

**"The Role of Dose Response Studies in the Evaluation of Carcinogenic Hazards."** Umberto Saffiotti, National Institutes of Health, National Cancer Institute, Bethesda, Maryland.

**"Statistics vs. Safety Factors and Scientific Judgment in The Evaluation of Safety for Man."** Carrol Weil, Mellon Institute, Carnegie-Mellon University, Pittsburgh, Pennsylvania.

**"Scientific Method vs. Anecdote (Dose Response as a Principle Applicable to the Human)."** Mitch Zvon, Kettering Laboratory, College of Medicine, University of Cincinnati, Cincinnati, Ohio.

**Open Discussion**

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**4:00 Annual Business Meeting.** Members of the Society of Toxicology. Palladian Room.

**6:30 Cocktail Party.** Cash Bar. Empire Room

March 9, 1971

**TUESDAY MORNING—DIPLOMAT ROOM**

*Chairman:* STEVEN KROP

*Assisted by:* KENT DAVIS, CLARA WILLIAMS

- 6 8:50 31. **Effects of Barbiturates on Ethanol Elimination in the Rat.** G. S. Wiberg, J. M. Samson, B. B. Coldwell, and H. L. Trenholm, Research Laboratories, Food and Drug Directorate, Department of National Health and Welfare, Ottawa, Ontario, Canada.
- 8 9:10 32. **Effect of Ethanol on the Distribution of Phenobarbital and Pentobarbital in the Rat.** B. B. Coldwell, H. L. Trenholm, B. H. Thomas and G. S. Wiberg, Food and Drug Directorate, Department of National Health and Welfare, Ottawa, Ontario, Canada.
- 9 9:30 33. **Pharmacological and Metabolic Studies on Ethanol-Amphetamine Combinations in the Mouse.** F. Iverson, H. L. Trenholm, B. B. Coldwell, and R. H. Downie, Food and Drug Directorate, Department of National Health and Welfare, Ottawa, Ontario, Canada. (Sponsor: J. F. Borzelleca.)
- 9:50 34. **Toxicity of 1-Methylxanthine, Alone and in the Presence of Ethanol.** R. L. Alstott and R. B. Forney, Department of Toxicology, Indiana University School of Medicine, Indianapolis, Indiana.

*10 MINUTE BREAK*

- 10:20 35. **Toxicity of Caffeine, Ethanol, and Caffeine-Ethanol Combinations.** R. L. Alstott and R. B. Forney, Department of Toxicology, Indiana University School of Medicine, Indianapolis, Indiana.
- 10:40 36. **Ethanol-Induced Adrenocortical Response and Related Metabolism in the Rabbit.** L. W. Masten and H. H. Cornish, Interdepartmental Program in Toxicology, University of Michigan, Ann Arbor, Michigan.
- 11:00 37. **The Oral and Dermal Toxicity of Hexachlorophene in Rats.** T. B. Gains and R. D. Kimbrough, Atlanta Toxicology Branch, Food and Drug Administration, Public Health Service, Department of Health, Education, and Welfare, Chamblee, Georgia.
- 11:20 38. **Mechanism of Enteric Ulcer Formation in Rats and Dogs Treated with Non-steroid Anti-inflammatory Agents.** J. E. Walter and R. M. Diener, Toxicology and Pathology Division, CIBA Pharmaceutical Co., Summit, New Jersey.
- 11:40 39. **Effects of Barbiturates and Catecholamine Precursors on the Release of LH and Prolactin in the Proestrous Rat as Measured by Radioimmunoassay.** J. Wedig and V. Gay, University of Michigan, Department of Pathology, Reproductive Endocrinology Program, Ann Arbor, Michigan. (Sponsor: H. H. Cornish.)

March 9, 1971

**TUESDAY MORNING—PALLADIAN ROOM**

*Chairman:* DALLAS NELSON

*Assisted by:* DOROTHY HOOD, JOHN WARD

- 8:50 40. **Chronic Toxicity Studies with 2,2-Dichlorovinyl Dimethyl Phosphate (DDVP) in Dogs and Rats Including Observations on Rat Reproduction.** S. Witherup, W. J. Jolley, K. Stemmer and E. A. Pfizer, Department of Environmental Health, College of Medicine, University of Cincinnati, Cincinnati, Ohio. (Sponsor: E. Homan.)
- 9:10 41. **The Effect of Dietary Dichlorvos on Swine Reproduction and Viability of Their Offspring.** J. A. Collins, M. A. Schooley, and V. K. Sing, Shell Development Company, Biological Sciences Research Center, Modesto, California; Shell Chemical Company, Agricultural Division, San Ramon, California; and Bio/Toxicological Research Laboratories, Inc., Spencerville, Ohio. (Sponsor: J. K. Kodama.)
- 9:30 42. **Teratology Studies with Dichlorvos in Rabbits.** E. E. Vogin, S. Carson, and M. B. Slomka, The Food and Drug Research Laboratories, Masspeth, New York, and Shell Chemical Company, San Ramon, California.
- 9:50 43. **Metabolic Fate of Ingested Dichlorvos in Swine.** A. C. Page, D. M. DeVriess, R. Young, and J. E. Loeffler, Shell Development Company, Biological Sciences Research Center, Modesto, California. (Sponsor: E. Homan.)

*10 MINUTE BREAK*

- 10:20 44. **Metabolic Fate of Inhaled Dichlorvos in Pigs.** J. E. Loeffler, D. M. DeVriess, R. Young, and A. C. Page, Shell Development Company, Biological Sciences Research Center, Modesto, California. (Sponsor: J. F. Borzelleca.)
- 10:40 45. **The Metabolism of <sup>14</sup>C VAPONA in Rats after Administration by Oral and Inhalation Routes.** D. H. Hutson, D. Blair, E. C. Hoadley, and B. A. Pickering, Tunstall Laboratory, Shell Research Limited, Sittingbourne, Kent, England. (Sponsor: J. F. Borzelleca.)
- 11:00 46. **Dichlorvos: Human Inhalation Studies.** C. G. Hunter, Tunstall Laboratory, Shell Research Limited, Sittingbourne, Kent, England.
- 11:20 47. **An Evaluation of the Safety of NO-PEST Strip Insecticide with Special Reference to Respiratory and Dietary Exposure of Occupants of Homes in Arizona.** J. W. Leary, C. Fontenot, E. Feichtmeir, D. Schultz, B. Koos, L. Hirsch, E. M. Lator, C. R. Roan, and C. H. Hine, Shell Chemical Company, Agricultural Division, San Ramon, California; Shell Development Company, Biological Sciences Research Center, Modesto, California; Associates in Laboratory Medicine, Tucson, Arizona; University of Arizona, Tucson, Arizona; Hine Laboratories, Inc., San Francisco, California.
- 11:40 48. **Exposure of Newborn Babies to VAPONA Insecticide.** E. C. Vigliani, Institute of Occupational Health "Luigi Devoto," University of Milan, Milan, Italy. (Sponsor: J. Keller.)

March 9, 1971

**TUESDAY MORNING—FORUM ROOM**

*Chairman:* ELTON HOMAN

*Assisted by:* MARY VERRETT, ROBERT J. WEIR

- 8:50 49. **The Metabolism and Binding to Cellular Macromolecules of Acetanilide Under Chronic Conditions.** P. H. Grantham, T. Matsushima, J. H. Weisburger, R. S. Yamamoto, and E. K. Weisburger, National Cancer Institute, Bethesda, Maryland.
- 9:10 50. **Effects of Chrysotile Asbestos on Trace Metals, Hydroxyproline and Aryl Hydrocarbon Hydroxylase in the Hamster Lung.** J. T. Mountain, J. R. Dixon, D. B. Lowe, A. E. Moffitt, Jr., and D. H. Groth, Laboratory of Toxicology and Pathology, Bureau of Occupational Safety and Health, Cincinnati, Ohio.
- 9:30 51. **Experimental Neoplasia in Chr-CD Rats with the Oral Administration of 3,3'-Dichlorobenzidine, 4,4'-Methylene-bis-(2-chloroaniline), and 4,4'-Methylene-bis (2-Methylaniline).** E. F. Stula, H. Sherman, and J. A. Zapp, Jr., Haskell Laboratory for Toxicology and Industrial Medicine, E. I. DuPont de Nemours & Co., Wilmington, Delaware.
- 9:50 52. **Carcinogenesis Studies in CAF<sub>1</sub> Mice of Reaction Products of  $\beta$ -Propiolactone (BPL) with Tissue and Blood Constituents.** M. J. Bleiberg, D. S. Bates, and G. Woodard, Woodard Research Corporation, Herndon, Virginia.

*10 MINUTE BREAK*

- 10:20 53. **Response of the Oral Mucosa, Cheek Pouch and Facial Skin of Syrian Hamsters to Chronic Irritation, Polycyclic Hydrocarbons and Chewing Tobacco.** F. Homburger, Bio-Research Consultants, Inc., Cambridge, Massachusetts.
- 10:40 54. **Carcinogenesis Studies in Inbred Syrian Hamsters. Breast Cancer Induction by Methylcholanthrene Feeding.** F. Homburger and S. S. Hsueh, Bio-Research Consultants, Inc., Cambridge, Massachusetts.
- 11:00 55. **Toxicology of a New Pyrimidine Antimetabolite, 5-Azacytidine, in Mice, Hamsters and Dogs.** P. E. Palm and C. J. Kensler, Toxicology Laboratories, Life Sciences Division, Arthur D. Little, Inc., Cambridge, Massachusetts.
- 11:20 56. **Relationship in Mice Between Inhibition of Salivation and Toxicity of Cigarette Smoke.** C. G. Van Dongen, Bio-Research Consultants, Inc., Cambridge, Massachusetts. (Sponsor: F. Homburger.)
- 11:40 57. **Maximum Tolerated Doses of Antitumor Agents: Correlation Between Experimental Animals and Man.** E. R. Homan, Laboratory of Toxicology, National Cancer Institute, Bethesda, Maryland.
- 12:00 58. **Toxicity of 1,3-Bis(2-chloroethyl)-1-Nitrosourea in Newborn Mice.** J. L. Gargus, L. E. Dudeck, G. F. Congleton, and R. W. Voelker, Jr., Oncology Department, Hazleton Laboratories, Inc., Falls Church, Virginia. (Sponsor: D. C. Jessup.)

March 9, 1971

**TUESDAY AFTERNOON—PALLADIAN ROOM**

*Chairman:* FLORENCE KINOSHITA

*Assisted by:* ANTHONY TRIOLO, MAURICE WEEKS

- 1:30 59. Potentiation of Effects of Chloroform Inhalation on Barbiturate Narcosis and Metabolism by Phenobarbital Pretreatment. S. K. Puri, G. Fuller, and H. Lal, Department of Pharmacology and Toxicology, University of Rhode Island, Kingston, Rhode Island.
- 1:50 60. An Increasing Dose Procedure for Cholinesterase Inhibition Studies in Dogs. O. E. Fancher, R. Greco, D. Lindberg, M. L. Keplinger, and J. C. Calandra, Industrial BIO-TEST Laboratories, Inc., Northbrook, Illinois.
- 2:10 61. The Influence of Phenobarbital on Carbon Tetrachloride Treated Hepatic Changes in the Rat and Dog. T. M. Farber, C. L. Litterst, A. Heider, and E. J. Van Loon, Bureau of Foods, Pesticides and Product Safety, Division of Toxicology, Food and Drug Administration, Washington, D.C.
- 2:30 62. Relationship of Altered Hepatic Microsomal Enzymes to Potentiated Hepatotoxicity of Carbon Tetrachloride. G. P. Carlson, G. C. Fuller, K. A. Suarez, and A. R. Johnson, Department of Pharmacology and Toxicology, University of Rhode Island, Kingston, Rhode Island.

10 MINUTE BREAK

- 3:00 63. Effect of Microsomal Enzyme Inhibition on the Acute Pharmacological Properties of Chlordiazepoxide. M. E. Goldberg, K. Sledge, R. C. Robichaud, B. Dubinsky, and S. Blum, Department of Pharmacology, Warner-Lambert Research Institute, Morris Plains, New Jersey.
- 3:20 64. Hepatic Reticuloendothelial Stimulation and Microsomal Drug Metabolism. D. W. Barnes and W. R. Wooles, Department of Pharmacology, Medical College of Virginia, Richmond, Virginia, and Division of Medical Sciences, East Carolina University, Greenville, North Carolina.
- 3:40 65. Inhibition of Hepatic Microsomal Enzymes by N-Substituted Ethanolamines. G. V. Foster, Jr., R. Hartung, and H. H. Cornish, Department of Environmental and Industrial Health, School of Public Health, University of Michigan, Ann Arbor, Michigan.
- 4:00 66. Synergistic Inhibition of Liver Protein and Nuclear RNA Synthesis Following Combined Oral Administration of Dimethylamine and Sodium Nitrite to Mice. M. A. Friedman and S. S. Epstein, Children's Cancer Research Foundation, Inc., Boston, Massachusetts.

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- 7:00 Society of Toxicology Banquet, Regency Ballroom. Speaker: William D. Ruckelshaus, Administrator, Environmental Protection Agency. Topic to be announced.

March 9, 1971

**TUESDAY AFTERNOON—DIPLOMAT ROOM**

*Chairman:* BENJAMIN R. ZEITLAN

*Assisted by:* HERBERT BLUMENTHAL, BERNARD FRANKO

- 1:30 67. **Mycotoxicosis Induced in Mice by Cultures of *Penicillium ochraceum*.** W. W. Carlton and J. F. Tuite, Department of Veterinary Physiology and Pharmacology, School of Veterinary Science and Medicine and Department of Botany and Plant Pathology, Purdue University, Lafayette, Indiana.
- 1:50 68. **Acute Effects of Synthetic Aflatoxin M<sub>1</sub>.** R. S. Pong and G. N. Wogan, Department of Nutrition and Food Science, Massachusetts Institute of Technology, Cambridge, Massachusetts.
- 2:10 69. **Aflatoxin B<sub>1</sub> Carcinogenesis and Partial Hepatectomy: Absence of an Interaction.** A. E. Rogers, N. S. Kula, and P. M. Newberne, Department of Nutrition and Food Science, Massachusetts Institute of Technology, Cambridge, Massachusetts.
- 2:30 70. **The Response of the Hypothalamus to High Doses of Monosodium Glutamate in Mice and Monkeys.** R. Abraham, W. Dougherty, L. Golberg, and F. Coulston, Institute of Experimental Pathology and Toxicology, The Albany Medical College of Union University, Albany, New York.

10 MINUTE BREAK

- 3:00 71. **A Comparison of Parenteral and Oral Administration of Monosodium Glutamate and Congeners to Neonatal Monkeys.** S. Carson, G. Cox, E. E. Vogin, and B. L. Oser, Food and Drug Research Laboratories, Inc., Maspeth, New York.
- 3:20 72. **Effects of Prolonged Monosodium Glutamate and Other High-Salt Diets on Arterial Pressure and Learning Ability in Rats.** L. R. Weiss, J. F. Reilly, J. Williams, and S. Krop, Division of Drug Biology, Food and Drug Administration, Washington, D.C.
- 3:40 73. **Household Toxicology: Appraising the Hazards and Communicating the Risks.** J. R. Hickman, G. S. Wiberg, and J. W. Black, Division of Toxicology, Food and Drug Directorate, Department of National Health and Welfare, and Hazardous Products Division, Department of Consumer and Corporate Affairs, Ottawa, Canada.
- 4:00 74. **Toxicity Coding Scheme.** J. V. Marhold, Research Institute for Organic Synthesis, Pardubice-Rybitvi, Czechoslovakia.

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- 7:00 **Society of Toxicology Banquet.** Regency Ballroom. Speaker: William D. Ruckelshaus, Administrator, Environmental Protection Agency. Topic to be announced.



March 9, 1971

**TUESDAY AFTERNOON—FORUM ROOM**

*Chairman:* RALPH C. WANDS

*Assisted by:* EMIL CHRISTOFANO, ANDREW REEVES

- 1:30 75. **Electrocardiographic Telemetry with Arrhythmia Recording on Dogs Chronically Exposed to Air Pollutants.** W. N. Bloch, Jr., W. C. Crocker, T. K. Wessendarp, and T. R. Lewis, Biological Research Branch, National Air Pollution Control Administration, USPHS, Cincinnati, Ohio. (Sponsor: J. F. Borzelleca.)
- 1:50 76. **Effects of Adrenalectomy and Phenobarbital Pretreatment on the Toxicity and Biochemical Effects of 1,1-Dichloroethylene.** L. J. Jenkins, Jr., J. Trabulus, and S. D. Murphy, Department of Physiology, Harvard School of Public Health, Boston, Massachusetts.
- 2:10 77. **Effects of Halocarbon Compounds on Rat and Mouse Mitochondria Following Exposure in vitro and in vivo.** E. Bachmann and L. Golberg, Institute of Experimental Pathology and Toxicology, The Albany Medical College of Union University, Albany New York.
- 2:30 78. **Chronic Pulmonary Pathology in Rats After the Intratracheal Injection of 0.4, 4, and 40  $\mu$ g of Beryllium as Beryllium Hydroxide.** D. H. Groth and G. R. Mackay, Laboratory of Toxicology and Pathology, Bureau of Occupational Safety and Health, PHS, Cincinnati, Ohio. (Sponsor: H. E. Stokinger.)

*10 MINUTE BREAK*

- 3:00 79. **Ultrastructural Observations of the Pulmonary Epithelial Response to Beryllium Hydroxide in the Rat.** D. H. Groth, G. R. Mackay, and M. L. Mead, Laboratory of Toxicology and Pathology, Bureau of Occupational Safety and Health, PHS, Cincinnati, Ohio. (Sponsor: H. E. Stokinger.)
- 3:20 80. **Comparative Changes in Serum Enzyme Levels in Liver Necrosis Induced by Beryllium and Other Liver Toxins.** J. J. Clary and L. A. Bland, Bureau of Occupational Safety and Health, PHS, Cincinnati, Ohio. (Sponsor: H. E. Stokinger.)
- 3:40 81. **Subacute Oral Toxicity of Monochlorobenzene in Dogs and Rats.** W. A. Knapp, Jr., W. M. Busey, and W. Kundzins, Hazleton Laboratories, Inc., TRW Life Sciences Center, Falls Church, Virginia. (Sponsor: D. C. Jessup.)
- 4:00 82. **Pharmacological Lexicography; or My Definition is Better Than Your Definition.** F. Sperling, Department of Pharmacology, Howard University Medical School, Washington, D.C.

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- 7:00 **Society of Toxicology Banquet.** Regency Ballroom. Speaker: William D. Ruckelshaus, Administrator, Environmental Protection Agency. Topic to be announced.



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March 9, 1971

TUESDAY EVENING

7:00 P.M.

**BANQUET**

**Regency Ballroom**

Menu

Sliced Oranges and Grapefruit  
topped with Fresh Strawberries  
and Imported Kirsch

Cornish Game Hen with Wild Rice,  
Half Peach and Currant Jelly

Grilled Tomato

Jumbo Asparagus Tips Hollandaise

Hearts of Lettuce

Rolls and Butter

Glace Parisienne with Cointreau

Coffee

Wine: Chablis

(Courtesy of the Charles River Companies)

**Welcome** Robert L. Roudabush, President  
Society of Toxicology

**Guest Speaker:** William D. Ruckelshaus  
Administrator  
Environmental Protection Agency

March 10, 1971

**WEDNESDAY MORNING—DIPLOMAT ROOM**

*Chairman:* SEYMOUR L. FRIESS

*Assisted by:* W. HOMER LAWRENCE, JANE ROBENS

- 8:50 83. **Effects of Starvation on the Mobilization and Redistribution of Pesticides and on Hepatic Microsomal Enzyme Activity in Weanling, Adult, and Old Rats.** W. B. Deichmann, W. E. MacDonald, and D. A. Cubit, Department of Pharmacology and the Research and Teaching Center of Toxicology, University of Miami School of Medicine, Miami, Florida.
- 9:10 84. **Increased Microsomal Enzyme Activity Due to Pyrethrum Administration.** A. C. Springfield, G. P. Carlson, and J. J. DeFeo, Department of Pharmacology and Toxicology, University of Rhode Island, Kingston, Rhode Island. (Sponsor: G. C. Fuller.)
- 9:30 85. **Induction of Hepatic Microsomal Hydroxylative Enzymes by Technical Piperonyl Butoxide and Some Related Compounds.** D. J. Wagstaff and C. R. Short, Department of Veterinary Physiology and Pharmacology, University of Missouri, Columbia, Missouri. (Sponsor: J. C. Shupe.)
- 9:50 86. **Effect of Chloroquine on Hepatic Microsomal Enzymes of the Squirrel Monkey.** M. Cranmer and A. Peoples, Perrine Primate Research Branch, Perrine, Florida. (Sponsor: W. F. Durham.)

10 MINUTE BREAK

- 10:20 87. **Acute and Chronic Administration of Acetylsalicylic Acid on the Development of Tolerance to Pentobarbital in Male and Female Rats.** J. M. Singh, Department of Pharmacology, Xavier University of Louisiana, College of Pharmacy, New Orleans, Louisiana.
- 10:40 88. **Biochemical and Physiological Correlates of Altered Drug Sensitivity in Chronically Isolated Animals.** I. Baumel, J. J. DeFeo, and H. Lal, Department of Neurology, Yale University, New Haven, Connecticut and Department of Pharmacology and Toxicology, University of Rhode Island, Kingston, Rhode Island.
- 11:00 89. **The Reversibility of Increased Rat Liver Weights and Microsomal Processing Enzymes after Feeding High Levels of 2,2,4-Trimethyl-1,3-Pentenediol Diisobutyrate (Kodaflex® TXIB).** W. J. Krasavage, K. S. Fischer, and R. L. Roudabush, Laboratory of Industrial Medicine, Eastman Kodak Company, Rochester, New York.
- 11:20 90. **The Role of Intestinal  $\beta$ -Glucuronidase in the Absorption of Diethylstilbestrol Glucuronide in Immature Rats.** L. J. Fischer, J. L. Weissinger, and T. H. Kent, University of Iowa College of Medicine, Iowa City, Iowa. (Sponsor: B. A. Becker.)
- 11:40 91. **The Relationship of Cyclophosphamide Activation to its Perinatal Toxicity in Mice.** R. D. Short and J. E. Gibson, Department of Pharmacology, Michigan State University, East Lansing, Michigan. (Sponsor: T. M. Brody.)

March 10, 1971

**WEDNESDAY MORNING—PALLADIAN ROOM**

*Chairman:* ROBERT SCALA

*Assisted by:* PAUL MATTIS, ROY MUNDY

- 8:50 92. **Direct Effect of Paraoxon on Erythrocyte Metabolism as Measured by O<sub>2</sub> Uptake.** J. A. Santolucito and E. R. Whitcomb, Perrine Primate Research Branch, USPHS, Perrine, Florida. (Sponsor: W. F. Durham.)
- 9:10 93. **Effect of Solvents on Percutaneous Absorption. Organophosphate Pesticides in Rabbits.** D. F. Foster, T. E. Shellenberger, and B. J. Gough, University of Southwestern Louisiana, Lafayette, Louisiana and Gulf South Research Institute, New Iberia, Louisiana.
- 9:30 94. **In Vivo Detoxication Potential and Selective Insecticidal Activity of Carbamate and Organophosphorus Compounds.** B. R. Smith and W. A. Brindley, Zoology Department and Interdepartmental Curriculum in Toxicology, Utah State University, Logan, Utah. (Sponsor: R. P. Sharma.)
- 9:50 95. **Rabbit Whole Blood Cholinesterase Inhibition and Reactivation Following Intravenous Infusion of Azodrin®.** B. J. Gough and T. E. Shellenberger, Gulf South Research Institute, New Iberia, Louisiana.
- 10 MINUTE BREAK*
- 10:20 96. **The Effect of 2,4-Dichlorophenoxyacetic Acid (2,4-D) and Esters of 2,4-D on Rat Fetal and Neonatal Growth and Development.** B. A. Schwetz, G. L. Sparschu, and V. K. Rowe, The Dow Chemical Company, Midland, Michigan.
- 10:40 97. **The Safety for Man of Small Daily Doses of an Organophosphate Acaricide (GS 13005).** J. H. Wills, J. D. Bradley, J. C. Russell, and F. Coulston, Institute of Experimental Pathology and Toxicology, Albany Medical College of Union University, Albany, New York.
- 11:00 98. **Alterations in Liver Microsomal Metabolism of Parathion Caused by Chronic Administration of Dilantin, Chloroquine, and DDE.** J. E. Davis, M. F. Cranmer and A. Peoples, USPHS, Perrine Primate Research Branch, Perrine, Florida. (Sponsor: W. F. Durham.)
- 11:20 99. **Fate of <sup>14</sup>C Ring and <sup>14</sup>Ethyl Labeled Parathion in the Rhesus Monkey.** F. Copeland, M. Cranmer, J. Carroll, and W. Oller, USPHS, Perrine Primate Research Branch, Perrine, Florida. (Sponsor: W. F. Durham.)
- 11:40 100. **A Toxicologic Evaluation of 5-ethoxy-3-trichloromethyl 1-1,2,4-thiadiazole (TERRAZOLE®).** J. F. Borzelleca, P. S. Larson, Gordon R. Hennigar, and E. J. Kuchar, Department of Pharmacology, Medical College of Virginia, Health Sciences Division, Virginia Commonwealth University, Richmond Virginia; Department of Pathology, Medical University of South Carolina Charleston, South Carolina; Olin Corporation, New Haven, Connecticut.

March 10, 1971

**WEDNESDAY MORNING—FORUM ROOM**

*Chairman:* SORRELL SCHWARTZ

*Assisted by:* HERMAN BIRNBAUM, HAROLD BLUMBERG

- 8:50 101. **Antagonism of Sodium Nitrite Intoxication.** J. L. Way and M. H. Sheehy, College of Veterinary Medicine and Pharmacy, Washington State University, Pullman, Washington.
- 9:10 102. **Some Aspects of the Reactions Between Hydroxylamine and Hemoglobin Derivatives.** R. D. Cranston and R. P. Smith, Department of Pharmacology, Dartmouth Medical School, Hanover, New Hampshire.
- 9:30 103. **Systemic Absorption of Copper from Copper Sulfate Emetic.** W. J. Decker, W. A. Goldsmith, R. C. Mills, and R. J. Banez, Department of Medical Research and Development, William Beaumont General Hospital, El Paso, Texas.
- 9:50 104. **Probability of Tumor Induction in Rats Treated with Various Levels of Ethynodiol Diacetate and Norethynodrel.** F. E. Reno, J. A. Trutter, L. D. Shott, and R. G. McConnell, Drugs and Industrial Chemicals Department, Hazleton Laboratories, Inc., Falls Church, Virginia and G. D. Searle and Company, Chicago, Illinois. (Sponsor: D. C. Jessup.)

10 MINUTE BREAK

- 10:20 105. **Toxicity of Metolazone in Meat-Fed Beagle Dogs.** D. J. Sullivan and R. E. Kane, Department of Pathology and Toxicology, Pennwalt Corporation, Pharmaceutical Division, Rochester, New York. (Sponsor: Z. Hadidian.)
- 10:40 106. **Toxicology and Fate of 2,2,4-Trimethyl-1,3-Pentanediol Diisobutyrate (Kodaflex® TXIB) in the Rat.** B. D. Astill, C. J. Terhaar, and D. W. Fassett, Laboratory of Industrial Medicine, Eastman Kodak Company, Rochester, New York.
- 11:00 107. **Toxicological Studies with Polychlorinated Biphenyls.** M. L. Keplinger, O. E. Fancher, and J. C. Calandra, Industrial BIO-TEST Laboratories, Inc., Northbrook, Illinois.
- 11:20 108. **Cataracts in Parachlorophenylalanine-Treated Rats: Development, Clinical Appearance and Antagonistic Effect of Phenylalanine.** E. J. Gralla and L. D. Rubin, Yale University School of Medicine, New Haven, Conn. and University of Pennsylvania School of Veterinary Medicine, Philadelphia, Pa.
- 11:40 109. **Studies on the Mechanism of the Cataractogenic Activity of 2,4-Dinitrophenol.** J. E. LeBeau and P. J. Gehring, Department of Pharmacology, College of Veterinary Medicine, Michigan State University, East Lansing, Michigan.

March 10, 1971

**WEDNESDAY AFTERNOON—PALLADIAN ROOM**

*Chairman:* MORENO KEPLINGER

*Assisted by:* JEROME GLASSMAN, RICHARD HENDERSON

- 1:30 110. **Storage, Metabolism and Urinary Excretion of DDT and DDT Metabolites in Human Subjects.** D. P. Morgan and C. C. Roan, Community Studies Pesticide Program, Department of Entomology, University of Arizona, Tucson, Arizona. (Sponsor: G. W. Ware.)
- 1:50 111. **Fate of <sup>14</sup>C Labeled o,p'-DDT in the Rat.** M. Cranmer, W. Oller, J. Carroll, and F. Copeland, Perrine Primate Research Branch, USPHS, Perrine, Florida. (Sponsor: W. F. Durham.)
- 2:10 112. **Metabolic Alterations in the Squirrel Monkey Induced by DDT Administration and Ascorbic Acid Deficiency.** R. Chadwick, M. Cranmer, and A. Peoples, Perrine Primate Research Branch, USPHS, Perrine, Florida. (Sponsor: W. F. Durham.)
- 2:30 113. **Paraquat Poisoning.** A. Pasi and C. H. Hine, Department of Pharmacology and Experimental Therapeutics, The Toxicology Group, University of California, San Francisco, California.
- 10 MINUTE BREAK
- 3:00 114. **Distribution and Metabolism of Paraquat in the Rat.** G. Molnar and W. J. Hayes, Jr., Department of Biochemistry, Vanderbilt University School of Medicine, Nashville, Tennessee.
- 3:20 115. **Lethality and Pharmacokinetics of Paraquat in Rats.** R. E. Murray and J. E. Gibson, Center for Laboratory Animal Resources and Department of Pharmacology, Michigan State University, East Lansing, Michigan. (Sponsor: T. M. Brody.)
- 3:40 116. **Neurologic and Behavioral Effects of Dietary Dieldrin in Juvenile Mallard Ducks.** R. P. Sharma, D. S. Winn, and J. L. Shupe, Department of Veterinary Science and Wildlife Resources, Utah State University, Logan, Utah.
- 4:00 117. **Inhibition of Diglyceridase and Cholinesterase Activity in Rats by Organophosphorus and Carbamate Esters.** R. Lauwerys and J. P. Buchet, Industrial Toxicology Unit, Louvain University, Brussels, Belgium. (Sponsor: S. D. Murphy.)

March 10, 1971

**WEDNESDAY AFTERNOON—DIPLOMAT ROOM**

*Chairman:* ROBERT ZWICKEY

*Assisted by:* HENRY SHERMAN, RICHARD STEELMAN

- 1:30 118. **Reduced anaphylaxis in DDT-treated guinea pigs.** J. Gabliks and E. M. Askari, Department of Biology, Northeastern University, Boston, Mass. (Sponsor: J. F. Borzelleca.)
- 1:50 119. **Spontaneous Neoplastic and Non-Neoplastic Diseases Commonly Encountered in Aging Sherman Rats.** S. Ohtake, A. L. Knezevich, B. Sparano, and R. Moraski, Lederle Laboratories, Division of American Cyanamid Company, Pearl River, New York.
- 2:10 120. **Apparent Hyrdonephrosis as a Stage of Renal Papillary Growth in Fetal Rats.** R. M. Hoar and D. C. Woo, Hoffmann-LaRoche, Inc., Nutley, New Jersey. (Sponsor: S. E. Sadek.)
- 2:30 121. **Normal Hematology and Blood Chemistry Values for Standard Laboratory Animals.** R. E. Vermette and D. C. Jessup, Hazleton Laboratories, Inc., Falls Church, Virginia.

*10 MINUTE BREAK*

- 3:00 122. **Applicability of CUSUM Techniques for Evaluation of Biological Data from Chronic Studies.** N. M. Fields, J. R. Duffet, A. Krumm, and Y. Alarie, Hazleton Laboratories, Inc., Falls Church, Virginia and Graduate School of Public Health, Pittsburgh, Pennsylvania.
- 3:20 123. **Toxicity Testing of Biomaterials and Ingredients by a Special Tissue Culture Technique.** E. O. Dillingham, W.H. Lawrence, and J. Autian, Materials Science Toxicology Laboratories, College of Dentistry and College of Pharmacy, University of Tennessee Medical Units, Memphis, Tennessee.
- 3:40 124. **Rotarod Performance and Sciatic Nerve  $\beta$ -Glucuronidase Activity as Indices of Acrylamide Neurotoxicity in Rats.** M. L. Kaplan and S. D. Murphy, Department of Physiology, Harvard School of Public Health, Boston, Massachusetts.

March 10, 1971

**WEDNESDAY AFTERNOON—FORUM ROOM**

*Chairman:* J. WESLEY CLAYTON

*Assisted by:* WALTER J. DECKER, ROGER SMITH

1:30 125. The Absorption of Different Chemical Compounds of Mercury from the Gastrointestinal Tract. T. W. Clarkson, Department of Radiation Biology and Biophysics and the Department of Pharmacology, The University of Rochester, Rochester, New York.

1:50 126. Methyl Mercury-(<sup>203</sup>Hg) Excretion by Lactation in Guinea Pigs. H. L. Trenholm, C. J. Paul, H. Baer, and F. Iverson, Food and Drug Directorate, Department of National Health and Welfare, Ottawa, Canada. (Sponsor: W. J. Hayes, Jr.)

2:10 127. Effects of Monomethylhydrazine on Blood-Cerebrospinal Fluid Glucose Flux. B. A. Shaywitz, W. T. Gormley, and K. C. Back, Toxicology Branch, Toxic Hazards Division, Department of the Air Force, 6570th Aerospace Medical Research Laboratory (AFSC), Wright-Patterson Air Force Base, Ohio.

3:30 128. Some Effects of CBrF<sub>3</sub> Inhalation on Myocardial Glycolysis. R. A. Rhoden and K. L. Gabriel, Environmental Engineering and Science Program, Drexel University, Philadelphia, Pennsylvania.

10 MINUTE BREAK

3:00 129. Continuous Exposures of Human Subjects to SO<sub>2</sub>. F. W. Weir, G. Ross, P. Bromberg and J. H. Shulte, Department of Preventive Medicine, The Ohio State University, Columbus, Ohio. (Sponsor: C. H. Hine.)

3:20 130. The Hyperbaric Toxicity of Sulfur Dioxide. T. A. Hill, L. Kurlansik and J. Seigel, U.S. Navy Toxicology Unit, NNMC, Bethesda, Maryland.

3:40 131. Protection Against Toxicity of Oxygen Under High Pressure by Pargyline as Related to Alteration in Brain GABA Metabolism. R. Schatz and H. Lal, Department of Pharmacology and Toxicology, University of Rhode Island, Kingston, Rhode Island.

March 11, 1971

THURSDAY MORNING—AMBASSADOR ROOM

Chairman: DAVID P. RALL

Assisted by: WALTER HANSEN, FRANCIS N. MARZULLI

- 8:50 132. Formation and Persistence of S-sulfonate in Plasma Following Intravenous Administration of Sulfite. A. E. Gunnison and E. D. Palmes, Institute of Environmental Medicine, New York University Medical Center, New York, New York.
- 9:10 133. Toxicological and Teratological Studies with ORF 3858 (2-methyl-3-ethyl-4-phenyl-4-cyclohexene carboxylic acid). L. E. Van Petten and T. O. King, Ortho Research Foundation, Raritan, New Jersey and Bio/dynamics, Inc., East Millstone, New Jersey.
- 9:30 134. Comparative Toxicity of o-Phenylphenol and an o-Phenolphenol-Containing Disinfectant. F. W. Oehme, Comparative Toxicology Laboratory, Kansas State University, Manhattan, Kansas.
- 9:50 135. The Effect of Restricted Food Intake on the Cardiotoxicity of Isoproterenol in Rats. T. Balazs, E. Arena, and C. N. Barron, Smith, Kline and French Laboratories, Philadelphia, Pennsylvania.

10 MINUTE BREAK

- 10:20 136. Acute Oral Toxicity of Cannabinoids in Various Species. G. R. Thompson, U. H. Schaeppi, and M. C. Braude, Mason Research Institute, Worcester, Massachusetts and NIMH, Chevy Chase, Maryland.
- 10:40 137. Maternal Distribution and Placental Transfer of  $^{14}\text{C}$ - $\Delta^9$ -Tetrahydrocannabinol in Pregnant Mice. R. D. Harbison, Department of Pharmacology, Tulane University, School of Medicine, New Orleans, Louisiana. (Sponsor: K. H. Jacobson.)
- 11:00 138. Circulating Levels of Nicotine in the Blood of Human Smokers. A. N. Worden, I. E. Burrows, and B. F. J. Page, Chemistry Department, Huntingdon Research Centre, Huntingdon, England.
- 11:20 139. Subacute Toxicity of Water-Suspended  $\Delta^9$ -Tetrahydrocannabinol in Rats. R. N. Phillips, D. J. Brown, R. C. Martz, J. D. Hubbard, and R. B. Forney, Department of Toxicology, Indiana University, School of Medicine, Indianapolis, Indiana.
- 11:40 140. Metabolism of  $\gamma$ -Dimethylaminopropylidiphenylphosphine by Rat Liver Homogenates. R. A. Wiley, H. A. Sasame, and J. R. Gillette, Department of Medicinal Chemistry, University of Kansas, Lawrence, Kansas and Laboratory of Chemical Pharmacology, National Heart and Lung Institute, Bethesda, Maryland. (Sponsor: M. D. Faïman.)
- 12:00 141. Preclinical Toxicity Studies with Tilorone Hydrochloride, an Oral Interferon Inducer. M. W. Rohovsky, J. W. Newberne, and J. P. Gibson, The Scientific Laboratories, The William S. Merrell Company, Division of Richardson-Merrell, Inc., Cincinnati, Ohio.



March 11, 1971

THURSDAY MORNING—EMPIRE ROOM

*Chairman:* YVES ALARIE

*Assisted by:* E. WILLIAM LIGON, JOHN J. POLLOCK

9:30 142. **Morphological Skin Reactions to 2-Chloroethanol.** J. V. Bruckner and W. L. Guess, College of Pharmacy, University of Texas, Austin, Texas.

9:50 143. **Dermal Phototoxic Reaction from an Insecticide; Clinical and Laboratory Studies.** W. C. Felsenstein, T. Gaines, and D. C. Staiff, Division of Pesticide Chemistry and Toxicology, FDA, Department of Health, Education, and Welfare, Wenatchee, Washington, and Atlanta, Georgia.

10 MINUTE BREAK

10:20 144. **The Effects of Acrolein Inhalation on the Tracheal Mucosa of the Chicken.** E. P. Denine, S. L. Robbins, and C. J. Kensler, Life Sciences Division, Arthur D. Little, Inc., Acorn Park, Cambridge, Massachusetts and Department of Pathology, Boston University School of Medicine, Boston, Massachusetts.

10:40 145. **The Effects of the Chronic Inhalation Exposure of Primates to Nitrogen Dioxide.** Y. Alarie, W. M. Busey, H. N. MacFarland, H. E. Swann, Jr., and A. A. Krumm, Hazleton Laboratories, Inc., Falls Church, Virginia.

11:00 146. **The Effects of Chronic Inhalation of Sulfuric Acid Mist on Primates.** W. M. Busey, Y. Alarie, J. W. Clayton, Jr., H. N. MacFarland, H. E. Swann, Jr. and A. A. Krumm, Hazleton Laboratories, Inc., Falls Church, Virginia.

11:20 147. **The Role of Tolerance in the Pulmonary Defense Mechanisms.** D. L. Coffin, D. E. Gardner, and E. J. Blommer, Experimental Pathology Section, Biological Research Branch, DHEW, Environmental Health Service, Cincinnati, Ohio.

11:40 148. **The Role of the Trigeminal Nerve in Sensory Irritation Produced by Airborne Chemical Irritants.** C. E. Ulrich, M. P. Haddock and Y. Alarie, Hazleton Laboratories, Inc., Falls Church, Virginia and the Graduate School of Public Health, University of Pittsburgh, Pittsburgh, Pennsylvania.

March 11, 1971

THURSDAY MORNING—DIPLOMAT ROOM

Chairman: G. J. TERHAAR

Assisted by DAVID A. BLAKE, ANNE WOLVEN

- 8:50 149. **The Comparative Toxicity of Natural and Synthetic Nordihydroguaretic Acid (NDGA) in Rats.** S. E. Sadek and R. Banziger, Department of Experimental Pathology and Toxicology, Biological Research Division, Hoffmann-LaRoche, Inc., Nutley, New Jersey.
- 9:10 150. **Effect of Mode of Oral Administration on Toxicity Produced by EL 273 [ $\alpha$ (2,4-dichlorophenyl)- $\alpha$ -phenyl-5-pyrimidinemethanol] in the Rat.** D. G. Hoffman, H. M. Worth, J. L. Emmerson, and R. C. Anderson, The Lilly Toxicology Laboratories, Eli Lilly and Co., Greenfield, Indiana.
- 9:30 151. **Toxicity of Formose Sugars.** A. Furst, H. B. Chermiside, and J. Shapira, Institute of Chemical Biology, University of San Francisco and Biotechnology Division, NASA-Ames Research Center, Moffett Field, California.
- 9:50 152. **Relation of Pesticides to Abortion in Dairy Cattle.** W. E. Ribelin and A. W. Macklin, Department of Veterinary Science, University of Wisconsin, Madison, Wisconsin.
- 10 MINUTE BREAK
- 10:20 153. **Comparison Between Ibogaine and Serotonin Metabolism in Rats.** H. I. Dhahir, A. B. Richards, N. C. Jain, and R. B. Forney, Department of Toxicology, Indiana University Medical Center, Indianapolis, Indiana.
- 10:40 154. **Tissue Distribution of Ibogaine Hydrochloride in Rats.** H. I. Dhahir, A. B. Richards, N. C. Jain, and R. B. Forney, Department of Toxicology, Indiana University School of Medicine, Indianapolis, Indiana.
- 11:00 155. **Behavioral Analysis of the Effects of Trifluoperazine and Chloral Hydrate in Patients under Treatment with Psychopharmacological Agents.** H. Lal, Y. Karkalas, N. Smith, and M. Singh, Institute of Mental Health, Rhode Island Medical Center, Howard, Rhode Island.
- 11:20 156. **Effect of Fluoride on Urine Flow Rate and Renal Sodium Concentration Gradients in the Rat.** G. M. Whitford and D. R. Taves, Department of Radiation Biology and Biophysics, and Department of Pharmacology and Toxicology, University of Rochester, Rochester, New York.
- 11:40 157. **The Effects of Mestranol and Several Progestins on Chromosomes and Fertility in the Rat.** C. W. Edwards, F. J. Calhoun, and S. Green, Bureau of Drugs Laboratories, Food and Drug Administration, Washington, D.C. (Sponsor: J. Litchfield.)
- 12:00 158. **A Comparison of the Carcinogenicity and Mutagenicity of Some Epoxy Compounds.** G. H. Hine, J. H. Nemenzo, and G. H. Eisenlord, The Toxicology Group, Department of Pharmacology and Experimental Therapeutics, University of California, San Francisco, California and The Hine Laboratories, San Francisco, California.

**NOTES**

NOTES

1972 - Williamsburg

1973 - N.Y.

1974 - Wash.

1975 -