

**SOCIETY
OF
TOXICOLOGY**

INCORPORATED



SEVENTH ANNUAL MEETING

PROGRAM

**Shoreham Hotel
Washington, D. C.
March 4-6, 1968**

INFORMATION

REGISTRATION

Pre-registration Forms Obtainable from Secretary:

Dr. Joseph F. Borzelleca
Department of Pharmacology
Medical College of Virginia
Richmond, Virginia 23219 (A.C. 703/770-4676)

Registration Desk—Shoreham Hotel

Sunday, 3 March 1968	3:00 P.M. - 5:00 P.M.
	7:30 P.M. - 10:00 P.M.
Monday, 4 March 1968	8:30 A.M. - 5:00 P.M.
Tuesday, 5 March 1968	8:30 A.M. - 5:00 P.M.
Wednesday, 6 March 1968	8:30 A.M. - 12:00 Noon

Fees—

Society of Toxicology, Inc. Members.....	\$10.00
Non-members	15.00
Pre-doctoral full-time students	2.00

Abstracts—

Distributed without charge to all members of the Society of Toxicology and to all who register for the Meeting.

MEETINGS

Scientific Sessions—Location

Diplomat Room
Palladian Room

Annual Business Meeting

Palladian Room
Monday, 4 March 1968—4:00 P.M.

SOCIAL EVENTS

Monday, 4 March 1968

Social Hour—6:30 P.M.—Ambassador Room

Tuesday, 5 March 1968

Banquet—7:00 P.M.—Empire Room
Tickets available at Registration Desk

The cocktail party, wine for the banquet and registration envelopes have been sponsored by the following laboratories:

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Panel on Toxicology Terminology

EARL H. DEARBORN HENRY F. SMYTH, JR.

Monday, March 4, 1968

MONDAY MORNING—DIPLOMAT ROOM

Chairman: ROBERT J. WEIR, JR.

Hazleton Laboratories, Inc.

Falls Church, Virginia

- RS* ↓
- 8:40 1. Chlorinated Hydrocarbon Insecticides in Plasma and Milk of Pregnant and Lactating Women.** A. Curley and R. Kimbrough, Toxicology Laboratory, Pesticides Program, National Communicable Disease Center, U. S. Public Health Service, Atlanta, Georgia. (Sponsor: W. J. Hayes, Jr.)
- 9:00 2. Toxicity and Enzyme Inducing Activity of Trifluoromethylbenzophenone Guanyldiazide.** F. K. Kinoshita, M. Flynn, M. Root, and K. P. DuBois, Toxicity Laboratory, University of Chicago, Chicago, Illinois.
- 9:20 3. Toxicity and Anticholinesterase Action of Bis-(diethylthio) chloromethyl Phosphonate.** M. Root, M. Flynn, F. Kinoshita, and K. P. DuBois, Toxicity Laboratory, University of Chicago, Chicago, Illinois.
- 9:40 4. Comparison of Enide (N,N-Dimethyl-2,2-Diphenylacetamide) and Botran (2,6-Dichloro-4-Nitroaniline) with DDT with Respect to Toxicity to Fish and Wildlife.** W. Knott and W. J. Scott, Woodard Research Corporation, Herndon, Virginia. (Sponsor: M. J. Bleiberg.)
- 10:00 5. Diazinon Toxicity—Comparative Studies in Dogs and Miniature Swine.** F. L. Earl, B. E. Melveger, J. E. Reinwall, G. W. Bierbower, and J. M. Curtis, Division of Pharmacology, Food and Drug Administration, U. S. Department of Health, Education and Welfare, Washington, D. C. (Sponsor: E. J. Van Loon.)
- 10:20 6. Dieldrin and DDT Retention in Dogs Fed Aldrin and DDT Individually and as a Mixture.** W. B. Deichmann and M. L. Keplinger, Department of Pharmacology and the Research and Teaching Center of Toxicology, University of Miami School of Medicine, Coral Gables, Florida.
- 10:40 7. Acute Toxicity of Combinations of Maleic Hydrazide Diethanolamine and Selected Insecticides.** H. M. Luckens and J. R. Wattimena, College of Pharmacy, University of Kentucky Medical Center, Lexington, Kentucky.
- 11:00 8. The Effect of Several Pesticides and Drug Combinations on Some Behavioral and CNS Responses in Rats.** L. R. Weiss and R. Brodie, Division of Toxicological Evaluation, Food and Drug Administration, Washington, D. C. (Sponsor: K. J. Davis.)
- 11:20 9. B-Glucuronidase Activity in Serum and Liver of Rats Administered Various Pesticides.** C. H. Williams, Division of Toxicological Evaluation, Food and Drug Administration, Washington, D. C. (Sponsor: K. H. Jacobson.)
- 11:40 10. Effect of DDT on Parathion Toxicity in Mice.** S. W. Bass and A. J. Triolo, Department of Pharmacology, Jefferson Medical College, Philadelphia, Pennsylvania. (Sponsor: J. M. Coon.)

Monday, March 4, 1968

MONDAY MORNING—PALLADIAN ROOM

Chairman: O. GARTH FITZHUGH
Food and Drug Administration
Washington, D. C.

- 8:40 11. Responses to Cyclohexylamine in Animals. I. Rosenblum, Department of Pharmacology and Institute of Experimental Pathology and Toxicology, Albany Medical College, Albany, New York.
- 9:00 12. The Sympathomimetic Action of Cyclohexylamine, A Metabolite of Cyclamate. H. I. Yamamura and R. L. Dixon, Department of Pharmacology, School of Medicine, University of Washington, Seattle, Washington.
- 9:20 13. Nutritional Studies with Calcium Cyclamate in Rats. M. S. Weinberg and E. M. Horrington, Biological Science Laboratories, Foster D. Snell, Inc., Bronx, New York.
- 9:40 14. Growth and Reproduction Studies with Cyclamate-Saccharin (10:1) in Rats. B. L. Oser, S. Carson, and E. E. Vogin, Food and Drug Research Laboratories, Inc., Maspeth, New York.
- 10:00 15. Chronic Studies with Sodium Saccharin and Sodium Cyclamate in Dogs. O. E. Fancher, R. J. Palazzolo, L. Blockus, M. S. Weinberg, and J. C. Calandra, Industrial Bio-Test Laboratories, Inc., Northbrook, Illinois and Abbott Laboratories, North Chicago, Illinois.
- 10:20 16. Absorption and Excretion of Cyclamate in Animals and Man. R. C. Sonders and R. G. Wiegand, Department of Pharmacology, Abbott Laboratories, North Chicago, Illinois. (Sponsor: E. T. Kimura.)
- 10:40 17. A Three-Month Study of Daily Intake of Sodium Cyclamate by Man. J. H. Wills, E. Jameson, G. Stoewsand, and F. Coulston, Institute of Experimental Pathology and Toxicology of Albany Medical College and New York State Department of Health, Albany, New York, and Medical Department of Clinton Prison, Dannemora, New York.
- 11:00 18. Medicinal Iron Powder from 1681 to 1968. M. N. Shanas and E. M. Boyd, Department of Pharmacology, Queen's University, Kingston, Ontario, Canada.
- 11:20 19. The Toxicology of a Rubber Accelerator after Ethylene Oxide Sterilization. W. L. Guess and R. K. O'Leary, Drug-Plastic Research and Toxicology Laboratories, College of Pharmacy, The University of Texas at Austin, Austin, Texas.
- 11:40 20. The Toxicity of Cannabis sativa (Marihuana). J. C. Munch, Advisory Committee, Federal Bureau of Narcotics, Miami Shores, Florida.

Monday, March 4, 1968

MONDAY AFTERNOON—DIPLOMAT ROOM

Chairman: CHARLES R. LINEGAR
Squibb Institute for Medical Research
New Brunswick, New Jersey

1:30 21. Some of the Effects of Tetramethylthiuram Disulfide (TMTD) on Reproduction of the Bobwhite Quail (*Colinus virginianus*). J. Wedig, A. Cowan, and R. Hartung, The University of Michigan, Ann Arbor, Michigan. (Sponsor: H. H. Cornish.)

1:50 22. Teratology and Reproduction Studies with an Anti-Nauseant. J. P. Gibson, R. E. Staples, E. J. Larson, W. L. Kuhn, D. E. Holtkamp, and J. W. Newberne, Scientific Laboratories, The Wm. S. Merrell Company, Division of Richardson-Merrell Inc., Cincinnati, Ohio.

2:10 23. Teratogenic Effects of Carbaryl and Other Pesticides in the Hamster, the Rabbit and the Guinea Pig. J. F. Robens, Division of Toxicological Evaluation, Food and Drug Administration, Washington, D. C. (Sponsor: J. M. Taylor.)

2:30 24. Teratological Study in Rats and Rabbits Exposed to an Isoproterenol Aerosol Nebair®. E. E. Vugin, R. E. Goldhamer, and S. Carson, Food and Drug Research Laboratories, Inc., Maspeth, New York.

2:50 25. Teratogenicity of Diphenylhydantoin in Swiss-Webster and A/Jax Mice. J. E. Gibson and B. A. Becker, Department of Pharmacology, College of Medicine, University of Iowa, Iowa City, Iowa.

3:10 26. Effect of Antibiotics Upon Pregnancy in the Rabbit. D. M. Brown, K. H. Harper, A. K. Palmer and S. A. Tesh, Beecham Research Laboratories, Betchworth, Surrey, England, and Huntingdon Research Centre, Huntingdon, England.

3:30 27. Development of Mouse Populations for Use in Toxicology. E. D. Palmes and J. DelPup, Institute of Environmental Medicine, New York University Medical Center, New York, New York.

4:00 Annual Business Meeting
Palladian Room

6:30 Social Hour
Ambassador Room

Monday, March 4, 1968

MONDAY AFTERNOON—PALLADIAN ROOM

Chairman: ALAN K. DONE
University of Utah
Salt Lake City, Utah

1:30 28. Salicylate Intoxication—Treatment with Potassium Citrate. W. T. Dobbins, Children's Hospital, Denver, Colorado. (Sponsor: A. K. Done.)

1:50 29. Adsorption of Ingested Drugs and Poisons by Activated Charcoal. W. J. Decker, H. F. Combs, and D. G. Corby, Research & Development and Pediatric Services, William Beaumont General Hospital, El Paso, Texas. (Sponsor: J. F. Borzelleca.)

2:10 30. Microcirculatory Effects of Ethanol. R. C. Martz, P. D. Harris, E. K. Greenwald, R. B. Forney and F. W. Hughes, Department of Toxicology and Pharmacology and Department of Physiology, Indiana University Medical School, Indianapolis, Indiana.

2:30 31. Electrocardiographic Effects of Vasopressin, Epinephrine or Ethanol in Dogs with Myocardial Lesions Induced by Isoproterenol or Coronary Ligation. T. Balazs, J. R. Cummings and J. F. Noble, Lederle Laboratories, American Cyanamid Co., Pearl River, New York.

2:50 32. Electrocardiographic Findings in Dogs Inhaling the Vapors of Diverse Chlorinated Hydrocarbons. H. E. Johnson and S. P. Shanor, Department of Pharmacology and Toxicology, Duquesne University, Pittsburgh, Pennsylvania. (Sponsor: C. L. Winek.)

3:10 33. The Selective Antagonism of Epinephrine Toxicity. C. B. Nash, Department of Pharmacology, University of Tennessee Medical Units, Memphis, Tennessee.

3:30 33a. Endrin and Dieldrin: A Comparison of Hepatic Excretion Rates in the Rat. J. F. Cole, L. M. Klevay and M. R. Zavan, Department of Environmental Health, University of Cincinnati College of Medicine, Cincinnati, Ohio. (Sponsor: H. E. Stokinger.)

4:00 Annual Business Meeting
Palladian Room

6:30 Social Hour
Ambassador Room

Tuesday, March 5, 1968

TUESDAY MORNING—DIPLOMAT ROOM

Chairman: LEONARD J. LEACH
University of Rochester Atomic Energy Project
Rochester, New York

8:40 34. Effects of Chronic Inhalation of Vinyl Bromide in Laboratory Animals. K. J. Leong and T. R. Torkelson, Dow Chemical Company, Midland, Michigan.

*B
RW*
9:00 35. Effects from Repeated Short-Term Inhalation of Fluorine. M. L. Keplinger, Research and Teaching Center of Toxicology, University of Miami School of Medicine, Coral Gables, Florida.

9:20 36. Safety Evaluation of Enide and Desmethyl Enide in Cigarette Smoke by Repeated Inhalation Exposure of Rats and of Dogs. M. J. Bleiberg, W. J. Scott, and R. P. Beliles, Woodard Research Corporation, Herndon, Virginia.

RAW
9:40 37. Respiratory Gas Tensions and pH of Arterial Blood in Cynomolgus Monkeys (*Macaca irus*). C. M. Banerjee, M. Woolard, and Y. Alarie, Hazleton Laboratories, Inc., Falls Church, Virginia. (Sponsor: H. N. MacFarland.)

RAW
10:00 38. A Mechanistic Model for the Analysis of Upper Respiratory Tract Irritation. Y. Alarie and C. Tibbetts, Hazleton Laboratories, Inc., Falls Church, Virginia. (Sponsor: H. N. MacFarland.)

W?
10:20 39. Effects of Nitrogen Dioxide on Pulmonary Cell Population. D. E. Gardner, R. Holzman, and D. L. Coffin, Experimental Pathology Unit, HERP-NCAPC, Public Health Service, Cincinnati, Ohio. (Sponsor: H. E. Stokinger.)

RAW
10:40 40. Dust Removal from the Lung Parenchyma: An Investigation of Clearance Simulants. P. E. Morrow, F. R. Gibb, H. Davies, and M. Fisher, Department of Radiation Biology and Biophysics, University of Rochester, Rochester, New York.

11:00 41. Fission Products: Transmutation, Translocation and Retention of the Radionuclide pair, Zirconium-95—Niobium-95 in the Rat. B. V. Rama Sastry, Department of Pharmacology, Vanderbilt University School of Medicine, Nashville, Tennessee.

11:20 42. Fission Products: Enhancement of Cesium-137 Retention during Hypokalemia and Low Tissue Potassium Levels in the Rat. B. V. Rama Sastry, Department of Pharmacology, Vanderbilt University School of Medicine, Nashville, Tennessee.

11:40 43. Metabolic Behavior of Inhaled Radionuclides of Varied Solubility in Beagle Dogs. R. O. McClellan and B. B. Boecker, Fission Product Inhalation Program, Lovelace Foundation for Medical Education and Research, Albuquerque, New Mexico. (Sponsor: K. L. Gabriel.)

Tuesday, March 5, 1968

TUESDAY MORNING—PALLADIAN ROOM

Chairman: FRED H. SNYDER
Proctor & Gamble
Cincinnati, Ohio

- 8:40 **44. Cutaneous and Parenteral Toxicologic Studies with Vehicles Containing Isopropyl Myristate and Peanut Oil.** J. E. Fitzgerald, J. L. Schardein, and D. H. Kaump, Research Laboratories, Parke, Davis & Company, Ann Arbor, Michigan.
- 9:00 **45. Toxicity of p-n-butylaniline, 2-Amino-4-n-butylaniline and 2-Nitro-4-n-butylacetanilide after Topical Application to the Rabbit.** J. J. Pollock, B. J. Payne, E. Arena, and B. Wright, Pathology and Toxicology, Smith Kline & French Laboratories, Philadelphia, Pennsylvania. (Sponsor: J. F. Borzelleca.)
- 9:20 **46. Comparative Response of Rabbit Skin and the Nonglandular Mucosa of Rat Stomach to Certain Topical Agents.** J. E. Gray and G. A. Elliott, Research Laboratories, The Upjohn Company, Kalamazoo, Michigan.
- 9:40 **47. The Detection of Contact Allergens by Means of a Guinea Pig Basophil Leukocyte Test.** Y. Gressel, Avon Products, Inc., Suffern, New York. (Sponsor: J. F. Borzelleca.)
- 10:00 **48. Comparative Studies of Known Sensitizers.** D. T. von Sumpter, C. G. Gerbig, and W. D. Fisher, Pharmacology Laboratory, Pesticides Regulation Division, ARS, U.S. Department of Agriculture, Beltsville, Maryland. (Sponsor: H. W. Hays.)
- 10:20 **49. Patterns of Photoreactivity and Crossreactivity in Persons Sensitized to Tetrachlorosalicylanilide.** J. F. Griffith and R. O. Carter, The Procter & Gamble Company, Miami Valley Laboratories and Ivorydale Technical Center, Cincinnati, Ohio.
- 10:40 **50. The Dermal Absorption of Four Solid Formulations of Carbaryl in Rabbits.** H. J. Trochimowicz and W. E. Rinehart, Department of Occupational Health, Graduate School of Public Health, The University of Pittsburgh, Pittsburgh, Pennsylvania.
- 11:00 **51. Steroid Induced Elevated Intraocular Pressure in Rabbits.** O. J. Lorenzetti, Therapeutics Research Laboratory, Miles Laboratories, Inc., Elkhart, Indiana. (Sponsor: R. K. S. Lim.)
- 11:20 **52. Corneal and Lens Opacities in Dogs Treated with 2,6-Dichloro-4-Nitroaniline.** J. M. Curtis, H. Bernstein, F. L. Earl, and H. E. Smalley, Jr., Special Pharmacological Animal Laboratory and the Bureau of Medicine, Food & Drug Administration, U. S. Department of Health, Education and Welfare, Washington, D. C. (Sponsor: E. J. Van Loon.)
- 11:40 **53. Hair Dye Ophthalmia as Evaluated in the Monkey and Rabbit: A Comparative Study.** T. Wernick and J. L. Magnani, Clairol Incorporated, Stamford, Connecticut. (Sponsor: S. Carson.)

Tuesday, March 5, 1968

TUESDAY AFTERNOON—DIPLOMAT ROOM

Chairman: ARTHUR J. PALLOTTA
Bionetics Research Laboratories, Inc.
Falls Church, Virginia

- 1:30 54. Chromatographic Identification of 4,4'-Dinitro-
biphenyl Metabolites.** S. Laham and J. P. Farant.
Environmental Toxicology Program, Environmental
Health Centre, Department of National Health and
Welfare, Ottawa, Canada.
- 1:50 55. Comparison of In Vitro Assay Methods for
Studying Metabolic Mechanisms that Affect Para-
oxon Toxicity.** R. R. Lauwerys and S. D. Murphy,
Department of Physiology, Harvard University
School of Public Health, Boston, Massachusetts.
- 2:10 56. Effect of Feeding and Fasting on Excretion of
Phenobarbital in the Rabbit.** J. M. Fujimoto and
R. A. Donnelly, Department of Pharmacology,
School of Medicine, Tulane University, New Or-
leans, Louisiana.
- 2:30 57. Enhanced Toxicity of Desipramine (DMI) in
Aggregated Mice: Possible Involvement of Catechol-
amine Release.** H. Lal and R. M. Brown, Depart-
ment of Pharmacology, University of Rhode Island,
Kingston, Rhode Island, and Department of Pharma-
cology, University of Chicago, Chicago, Illinois.
- 2:50 58. Adrenergic Responses in the Shark.** S. L.
Schwartz and J. F. Borzelleca, U. S. Naval Medical
Research Institute, Bethesda, Maryland, and Medical
College of Virginia, Richmond, Virginia.
- 3:10 59. Some Chemical and Pharmacological Proper-
ties of a Novel Anti-inflammatory Protein.** W.
Huber, T. L. Schulte, S. Carson, R. E. Goldhamer,
and E. E. Vogin, Beta Laboratories, Inc., Palo Alto,
California, and Food and Drug Research Labora-
tories, Inc., Maspeth, New York.
- 3:30 60. Studies on Cobalt Toxicity.** G. S. Wiberg,
Pathology and Toxicology Section, Research Labo-
ratories, Food and Drug Directorate, Department of
National Health and Welfare, Ottawa, Canada.
- 3:50 61. The Interaction Between Various Drugs and
Methotrexate.** R. L. Dixon, Department of Pharma-
cology, School of Medicine, University of Washing-
ton, Seattle, Washington.
- 4:10 62. The Effect of Uncoupling Agents on the
Transport, Toxicity and Effectiveness of Methotrex-
ate.** I. P. Lee and R. L. Dixon, Department of
Pharmacology, School of Medicine, University of
Washington, Seattle, Washington.

7:00 Society of Toxicology Banquet
Empire Room
Speaker: Hon. Edmund S. Muskie, U. S. Senate

Tuesday, March 5, 1968

TUESDAY AFTERNOON—PALLADIAN ROOM

Chairman: ZAREH HADIDIAN

Strasenburg Labs
Rochester, New York

1:30 63. Prevention of Acetamide Hepatocarcinogenicity by Arginine Glutamate. R. S. Yamamoto, R. M. Glass, and L. H. Weisburger, Biology Branch, National Cancer Institute, Bethesda, Maryland.

1:50 64. Potentiating Effects of Low Protein Diets on Exposure to Aflatoxin in Rats. P. M. Newberne and G. N. Wogan, Department of Nutrition and Food Science, Massachusetts Institute of Technology, Cambridge, Massachusetts.

2:10 65. Utilization of Newborn Mice in the Bioassay of Chemical Carcinogens. J. L. Gargus, O. E. Paynter, and W. H. Reese, Hazleton Laboratories, Inc., Falls Church, Virginia.

2:30 66. The Role of Trace Elements in Newer Theories of Metal Carcinogenesis. J. R. Dixon, D. B. Lowe, D. E. Richards, and H. E. Stokinger, U. S. Department of Health, Education, & Welfare, Public Health Service, Bureau of Disease Prevention & Environmental Control, Cincinnati, Ohio.

2:50 67. Chemical Carcinogenesis in the Nonhuman Primate. W. H. Reese, Jr., M. G. Kelly, and R. W. O'Gara, Hazleton Laboratories, Inc., Falls Church, Virginia, Laboratory of Chemical Pharmacology, National Cancer Institute, and Laboratory of Pathology, National Cancer Institute, Bethesda, Maryland. (Sponsor: T. W. Tusing.)

3:10 68. The Hepatotoxicity of the Carcinostatic Compound 1,3-bis(2-chloroethyl)-1-Nitrosourea (BCNU, NSC 409962) in Rats. G. R. Thompson and R. E. Larson, Department of Pharmacology, Oregon State University, Corvallis, Oregon. (Sponsor: G. L. Plaa.)

3:30 69. Derivative Characteristics of Evoked Brain Responses. C. Xintaras, A. A. Strong, J. V. Setzer, and M. F. Sobecki, Behavioral Toxicology Unit, National Center for Air Pollution Control, U. S. Department of Health, Education, and Welfare, Cincinnati, Ohio. (Sponsor: E. J. Fairchild II).

3:50 70. The Use of Squirrel Monkeys in Behavioral Studies for the Evaluation of Drug Effects. T. R. A. Davis and C. J. Kensler, Life Sciences Division, Arthur D. Little, Inc., Cambridge, Massachusetts.

4:10 71. Relationships Between the Activity and Structure of Methyleneoxyphenyl and Related Compounds: Effects on Hexobarbital Sleeping and Zoxazolamine Paralysis in Mice. K. Fujii, H. Jaffe, and S. S. Epstein, Laboratories of Carcinogenesis and Toxicology, Children's Cancer Research Foundation, Inc., Boston, Massachusetts. (Sponsor: J. H. Weisburger.)

7:00 Society of Toxicology Banquet

Empire Room

Speaker: Hon. Edmund S. Muskie, U. S. Senate

Wednesday, March 6, 1968

WEDNESDAY MORNING—DIPLOMAT ROOM

Chairman: JOHN H. KAY
Life Stream Laboratories, Inc.
Libertyville, Illinois

- 8:40 72. Toxicologic Studies on Repeated Intravenous Dosages of N, N, Bis-(2-Methanesulfonyethyl)-p-Nitrosoaniline (NAMS) in Dogs and Monkeys. P. E. Palm, M. S. Nick, E. P. Denine, and C. J. Kensler, Life Sciences Division, Arthur D. Little, Inc., Cambridge, Massachusetts.
- 9:00 73. The Toxicity of Bromacil, A Substituted Ura-
cil. H. Sherman, Haskell Laboratory for Toxicology
and Industrial Medicine, E. I. du Pont de Nemours
and Company, Newark, Delaware.
- 9:20 74. Safety Evaluation of 2-Aminobutane, a Post-
harvest Fungistat. H. M. Worth and R. C. Ander-
son, The Lilly Toxicology Laboratories, Eli Lilly
and Company, Greenfield, Indiana.
- 9:40 75. Toxicology of d-Propoxyphene. J. L. Emmer-
son, W. R. Gibson, P. N. Harris, and R. C. Ander-
son, The Lilly Toxicology Laboratories, Eli Lilly
and Company, Greenfield, Indiana.
- 10:00 76. Safety Evaluation of Botran® (2,6-dichloro-
4-nitroaniline) in Laboratory Animals. C. D. John-
ston, G. Woodard, and M. T. I. Cronin, Woodard
Research Corporation, Herndon, Virginia, and Yale
University, New Haven, Connecticut.
- 10:20 77. Two-Year Feeding Study in Rats with Linear
Alkylbenzene Sulfonate (LAS). E. V. Buehler, E. A.
Newmann, and W. R. King, The Proctor & Gamble
Company, Miami Valley Laboratories, Cincinnati,
Ohio.
- 10:40 78. Toxicity and Metabolism of 2-hydroxy-4-n-
octoxybenzophenone (CYASORB® UV 531 Light
Absorber). Y. M. Patel and G. J. Levinskas, Envir-
onmental Health Laboratory, American Cyanamid
Company, Princeton, New Jersey.
- 11:00 79. Toxicological Studies with 3- α -Dimethyltyro-
sine Methyl ester—HCL, an Inhibitor of Tyrosine Hy-
droxylase. E. Hansson, G. Magnusson, and H. Cor-
rodi, Toxicology Laboratories, AB Astra, Sodertalje,
Sweden, and Research Laboratories, AB Hassle,
Gothenburg, Sweden.
- 11:20 80. Effect of NaF and NF₃O on Growth and
Thyroid Function in the Rat. E. W. Van Stee,
Toxicology Branch, Toxic Hazards Division, 6570th
Aerospace Medical Research Laboratories (MRBTT),
Wright-Patterson Air Force Base, Ohio. (Sponsor:
K. C. Back.)
- 11:40 81. Comparison of Mortality Rates of Some Bar-
biturates in Normal and Triiodothyronine—induced
Hyperthyroid Rats. R. D. Harbison and B. A.
Becker, Department of Pharmacology, University of
Iowa, Iowa City, Iowa.

Wednesday, March 6, 1968

WEDNESDAY MORNING—PALLADIAN ROOM

Chairman: TED A. LOOMIS
University of Washington School of Medicine
Seattle, Washington

8:40 82. The Effect of Flavins on Purified and Microsomal Azoreductase. L. Shargel and P. Mazel, Department of Pharmacology, The George Washington University School of Medicine, Washington, D. C.

9:00 83. Stress-Inducible Liver Enzymes in Rats Given Hepatotoxic Chemicals. S. D. Murphy and S. Malley, Department of Physiology, Harvard University School of Public Health, Boston, Massachusetts.

9:20 84. Effect of Carbon Tetrachloride on the Metabolism, Storage, and Excretion of Sulfobromophthalein. C. D. Klaassen and G. L. Plaa, Oakdale Toxicology Center, Department of Pharmacology, College of Medicine, University of Iowa, Iowa City, Iowa.

9:40 85. Stimulation of Hepatic Processing Enzymes and Liver Growth by a Series of Pyridyl Carbinol Fungicides. D. G. Hoffman, H. M. Worth, and R. C. Anderson, The Lilly Toxicology Laboratories, Eli Lilly and Company, Greenfield, Indiana.

10:00 86. The Effects of Chronic Nitroglycerol Poisoning on Soluble Monoamine Oxidase (MAO) and Urinary Vanillyl Mandelic Acid (VMA) in Rabbits. F. C. Phipps and J. T. Mountain, U. S. Department of Health, Education, and Welfare, Public Health Service, Bureau of Disease Prevention and Environmental Control, Cincinnati, Ohio.

10:20 87. The Red Cell Fragility Test as a Measure of Local Tissue Toxicity. J. O. Hoppe and L. P. Duprey, Pharmacology Section, Sterling-Winthrop Research Institute, Rensselaer, New York.

10:40 88. Barbiturate-Salicylate Interaction in the Rat. B. B. Coldwell and G. Solomonraj, Pathology and Toxicology Section, Research Laboratories, Food and Drug Directorate, Department of National Health and Welfare, Ottawa, Ontario, Canada. (Sponsor: G. S. Wiberg.)

11:00 89. Development of Tolerance to Pentobarbital and Thiopental in Albino Rats. J. Singh, Division of Biological Science, College of Pharmacy, Xavier University, New Orleans, Louisiana. (Sponsor: J. Fujimoto.)

11:20 90. Studies of Hydrazine Hepatotoxicity. W. L. Banks, Jr., Department of Biochemistry, Medical College of Virginia, Richmond, Virginia. (Sponsor: J. F. Borzelleca.)

11:40 91. Morphine and Etorphine (M99) on the Oxygen Consumption of Mice. M. W. Williams, C. S. Williams and G. R. DeWitt, Veterans Administration Hospital, Tucson, Arizona.

Wednesday, March 6, 1968

WEDNESDAY AFTERNOON—DIPLOMAT ROOM

Chairman: HAROLD M. PECK
Merck Institute for Therapeutic Research
West Point, Pennsylvania

1:30 92. Turpentine-induced Histological Changes in Isolated Rat and Guinea Pig Lungs. F. Sperling and W. L. Marcus, Department of Pharmacology, College of Medicine, Howard University, Washington, D. C.

1:50 93. Influence of Age on the Reserpine-induced Gastric Lesions in Rats. J. Reilly, P. Cassidy, J. S. Watts, L. M. Lusky, and S. Krop, Division of Pharmacology, Bureau of Science, Food and Drug Administration, Washington, D. C.

2:10 94. Preliminary Observations on the Histochemical Changes of the Gastrointestinal Tract of Monkeys Due to Various Treatments. R. M. Diener and B. M. Sparano, Division of Toxicology and Pathology, Ciba Pharmaceutical Company, Summit, New Jersey.

2:30 95. Nephrotoxic Effects of Monomethylhydrazine in Monkeys. M. E. George, W. Mautner, and K. C. Back, Toxicology Branch, Toxic Hazards Division, 6570th Aerospace Medical Research Laboratories (MRBTT), Wright-Patterson Air Force Base, Ohio, and Mt. Sinai Hospital, New York, New York.

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B 2:50 96. Histopathologic Changes Associated with the Subacute Oral Administration of a Resin in Dogs. W. M. Busey, M. B. Powers, and L. M. Crews, Hazleton Laboratories, Inc., Falls Church, Virginia. (Sponsor: D. C. Jessup.)

~~97~~
B 3:10 97. Histologic Reaction to Polyurethane Dust. R. H. Rigdon and D. J. Kilian, University of Texas Medical Branch, Galveston, Texas, and Industrial Medicine & Toxicology, Texas Division, Dow Chemical Company, Freeport, Texas. (Sponsor: V. K. Rowe.)

3:30 98. Light and Electron Microscopy Studies of Dog Adrenal Cortex after Treatment with o,p'-DDD. M. L. Vernon, E. R. Homan, and T. W. Tusing, Hazleton Laboratories, Inc., Falls Church, Virginia, and National Cancer Institute, Bethesda, Maryland.

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B 3:50 99. Percutaneous Absorption of Some Narcotic Drugs in Dimethylsulfoxide (DMSO). W. D. Colom, C. L. Winek, and S. P. Shanor, Department of Pharmacology and Toxicology, Duquesne University, Pittsburgh, Pennsylvania.

Wednesday, March 6, 1968

WEDNESDAY AFTERNOON—PALLADIAN ROOM

Symposium on:
Toxicological Studies in Animals of
Economic Importance

Co-Sponsored by: Society of Toxicology and
The American College of Veterinary Toxicology

Chairman: KARL L. GABRIEL
Drexel Institute of Technology
Philadelphia, Pennsylvania

- RW* 1:30 100. Neuromuscular Effects of Carbaryl Insecticide in Swine. H. E. Smalley, P. J. O'Hara, C. H. Bridges, and R. D. Radeleff, Southwestern Veterinary Toxicology and Livestock Insects Research Laboratory, and Texas Agricultural Experiment Station, College Station, Texas.
- RW* 1:50 101. Teratogenic and Poisoning Effects of Loco-weeds. L. F. James, R. F. Keeler, W. Binns, and K. L. Bennett, ARS, USDA, Animal Disease and Parasite Division, Logan, Utah.
- W* 2:10 102. Clinical, Toxicological and Pathological Aspects of Arsanilic Acid Poisoning in Swine. A. E. Ledet, J. R. Duncan, and W. B. Buck, Iowa State University, Ames, Iowa, (Sponsor: K. L. Gabriel.)
- W* 2:30 103. Mycotoxins in Animal Feeds. G. H. Nelson, C. M. Christensen and C. J. Mirocha, University of Minnesota, St. Paul, Minnesota. (Sponsor: K. L. Gabriel.)
- W* 2:50 104. Integrated Studies of the Effects of Dieldrin on Behavior, Electroencephalograms and Clinical Chemistry in Sheep. G. A. Van Gelder, W. B. Buck, G. C. Karas, and D. Sussman, Iowa State University, Ames, Iowa. (Sponsor: K. L. Gabriel.)
- W* 3:10 105. Bone Composition as Deleteriously Influenced by Prolonged Administration of K₂EDTA and an Aldosterone Inhibitor to Cattle. D. E. Bailey, J. T. Blake, and E. J. Fisher, College of Agriculture, Utah State University, Logan, Utah. (Sponsor: J. L. Shupe.)
- W* 3:30 106. Glomerular Lesions Induced in Pekin Ducks by Dietary Dimethylnitrosamine. W. W. Carlton and J. R. Welser, Department of Veterinary Physiology and Pharmacology and Department of Veterinary Anatomy, School of Veterinary Science and Medicine, Purdue University, Lafayette, Indiana. (Sponsor: T. S. Miya.)