

SOCIETY
of
TOXICOLOGY
INCORPORATED



PROGRAM

SIXTH ANNUAL MEETING



Atlanta, Georgia

MARCH 23-25, 1967



INFORMATION

REGISTRATION

Pre-registration forms obtainable from Secretary:

Mr. Carrol S. Weil
Mellon Institute
4400 Fifth Avenue
Pittsburgh, Pa. 15213

Registration Desk—Marriott Motor Hotel

Wednesday, March 22—3:00 P.M.— 5:00 P.M.
7:30 P.M.—10:00 P.M.

Thursday, March 23—8:30 A.M.— 5:00 P.M.

Friday, March 24—8:30 A.M.— 5:00 P.M.

Saturday, March 25—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—on sale at meeting \$1.00

One copy mailed to each Society of Toxicology member and other pre-registrants. Distributed without charge to non-members registering at Registration Desk.

MEETINGS

Scientific Sessions—Location:

Grand Ballroom N
Grand Ballroom S
Tara 1, 2, 3

Annual Business Meeting:

Grand Ballroom N

SOCIAL EVENTS

Thursday, March 23

Social Hour—6:00 P.M.

Tara 1—5

Friday, March 24

Banquet—7:00 P.M.

Grand Ballroom C & N

Tickets available at Registration Desk

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

AME-Associates
Bio/dynamics, Inc.
Bionetics Research Laboratories, Inc.
Bio-Research Consultants, Inc.
Food and Drug Research Laboratories
Hazleton Laboratories, Inc.
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(Consists of officers and 4 elected members)

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ELECTED COMMITTEES

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THURSDAY, MARCH 23, 1967

THURSDAY MORNING

GRAND BALLROOM N

Chairman: James W. Newberne
Wm. S. Merrell Co.
Cincinnati, Ohio

- 9:00 **1. Factors Influencing the Choice of the New Zealand White Rabbit in Teratology Studies.** Anthony K. Palmer and Alastair N. Worden, Huntingdon Research Centre, Huntingdon, England.
- 9:20 **2. Experimental Teratology in the Monkey.** K. D. Courtney, D. A. Valerio, and A. J. Pallotta, Bionetics Research Laboratories, Inc., Falls Church, Virginia.
- 9:40 **3. The Application of Indocyanin Green as a Test for Hepatic Function in Mice and Rats.** Yasuhiro Noguchi, Department of Pharmacology and Experimental Therapeutics (Toxicology Activity), School of Medicine, University of California at San Francisco, San Francisco, California (Sponsor: C. H. Hine)
- 10:00 **4. Toxicological and Teratological Studies on Antibiotics in Rabbits.** H. Madisoo, C. D. Johnston, W. J. Scott, I. Holme, and M. H. Pindell, Research Division, Bristol Laboratories Division of Bristol-Myers Company, Syracuse, New York, and Woodard Research Corporation, Herndon, Virginia.
- 10:20 **5. Intensification of Fetal Bone in the Rodent.** Mark Hite, Margaret Jaep and Christopher M. Clark, Merck Institute for Therapeutic Research, West Point, Pennsylvania. (Sponsor: P. A. Mattis)
- 10:40 **6. Teratogenicity of Cyclophosphamide in the Mouse.** J. E. Gibson and B. A. Becker, Dept. of Pharmacology, College of Medicine, University of Iowa, Iowa City, Iowa.
- 11:00 **7. Local Histologic Changes Following Long-Term Well-Tolerated Intramuscular Injections.** J. E. Gray, Research Laboratories of The Upjohn Company, Kalamazoo, Michigan.
- 11:20 **8. Cardiovascular Responses in Nephrotoxic Beagles.** Eugene E. Vogin, Andre H. Phelps and Paul A. Mattis, Merck Institute for Therapeutic Research, West Point, Pennsylvania.
- 11:40 **9. Ultrastructural and Biochemical Studies of Sodium Cyclamate.** A. A. Stein, D. M. Serrone and F. Coulston, Institute of Experimental Pathology and Toxicology, Albany Medical College, Albany, New York.

THURSDAY, MARCH 23, 1967

THURSDAY MORNING

TARA 1,2,3

Chairman: Edward D. Palmes
Institute of Environmental Medicine
NYU Medical Center
New York, N. Y.

- 9:00 10. Chronic Overexposure to Benzene Vapor.** Richard D. Stewart, Hugh C. Dodd, Edward D. Baretta, Arnold W. Schaeffer, John E. Mutchler, Marquette University School of Medicine (Milwaukee, Wisconsin) and The Dow Chemical Company, Midland, Michigan.
- 9:20 11. Quantitative Analysis of Spontaneous Activity: Effects of Long Continuous Exposure to Space Cabin Atmospheres.** Anthony A. Thomas and John L. Naylor, Toxic Hazards Division, 6570th Aerospace Medical Research Laboratories (MR.MPT), Wright-Patterson Air Force Base, Ohio.
- 9:40 12. Inhalation by Small Animals of Fresh Cigarette Smoke Generated by New Smoking Machine.** F. Homburger, P. Bernfeld, P. Bogdonoff, T. Kelley and R. Walton, Bio-Research Consultants, Inc., Cambridge, Massachusetts.
- 10:00 13. Pulmonary-Cardiovascular Responses of Intact, Spinal Lesioned, and Sham-Operated Rats Exposed to Ozone.** E. Fairchild, II, S. Plume, III, and C. Pantle, The Toxic Hazards Research Unit, Aerojet-General Corp., Dayton, Ohio and The Division of Occupational Health, Public Health Service, U. S. Dept. of Health, Education, and Welfare, Cincinnati, Ohio.
- 10:20 14. Further Studies of Metal Shifts from Inhaled Toxic Irritants, Trace Metal Changes in Lungs in Tumor Susceptible and Resistant Mice Exposed to Ozone.** J. R. Dixon, R. E. Kinser, W. C. Lane and H. E. Stokinger, Occupational Health Research and Training Facility, Dept. of Health, Education, and Welfare, Cincinnati, Ohio.
- 10:40 15. In Vivo Effects of Cigarette Smoke on Mucus Transport Activity and Mucus Secretion in Chronically Exposed Chickens.** S. P. Battista, R. W. Graham, and C. J. Kensler, Life Sciences Division, Arthur D. Little, Inc., Cambridge, Massachusetts.
- 11:00 16. Shift in Circulating Neutrophil-Lymphocyte Ratios Associated with Pulmonary Injury in Rats Exposed to Ozone.** G. A. Bobb and E. J. Fairchild, II, Dept. of Health, Education and Welfare, Division of Occupational Health, Cincinnati, Ohio and Toxic Hazards Research Unit, Aerojet-General Corporation, Dayton, Ohio.
- 11:20 17. Performance in Human Subjects at Same Blood Alcohol Concentrations on Rising vs. Falling Curve.** D. J. Brown, R. B. Forney, F. W. Hughes, and A. B. Richards, Department of Pharmacology and Toxicology, Indiana Uni-

versity School of Medicine, Indianapolis, Indiana.

- 11:40 18. **Sleep: Changes in REM Phase in Chronic Lead Absorption.** C. Xintaras, M. F. Sobbecki, and C. E. Ulrich, Pharmacology and Toxicology Section, Laboratory of Medical and Biological Sciences, Division of Air Pollution, Public Health Service, U. S. Dept. of Health, Education, and Welfare, Cincinnati, Ohio. (Sponsor: C. L. Punte).

THURSDAY, MARCH 23, 1967

THURSDAY AFTERNOON

GRAND BALLROOM N

Chairman: Theodore O. King
Bio/dynamics, Inc.
East Millstone, N. J.

- 1:45 19. **Approaches to Toxicity Evaluation of Plastic Materials for Medical Purposes.** John Autian, University of Tennessee, College of Pharmacy and Dentistry, Memphis, Tennessee.
- 2:15 20. **Tissue Reaction to Plastic Implants in the Animal and Man.** Julio C. Davila, Temple University School of Medicine, Philadelphia, Pa.
- 2:45 21. **Research Approaches to Blood-Plastic Compatibility Problems.** Richard D. Falb, Battelle Memorial Institute, Columbus, Ohio.
- 3:15 22. **Plastics and Carcinogenesis.** Richard R. Bates, National Cancer Institute, Bethesda, Maryland.

(All papers sponsored by T. O. King)

4:00 **Annual Business Meeting**
Grand Ballroom N

6:00 **Social Hour**
Tara 1—5

FRIDAY, MARCH 24, 1967

FRIDAY MORNING

TARA 1,2,3

Chairman: John P. Frawley

Hercules, Inc.

Wilmington, Delaware

- 9:00 23. Evaluation of Mental and Motor Performance with the Anti-anxiety Drug-RO 5-4556, Ethanol and Drug-Ethanol Combination.** M. E. Bernstein, F. W. Hughes, A. B. Richards, and R. B. Forney, Dept. of Pharmacology and Toxicology, Indiana University Medical Center, Indianapolis, Indiana.
- 9:20 24 The Effects of Solvent Inhalation on Conditioned Avoidance Response in Rats.** C. H. Hine, G. S. Stone, K. C. Leung and A. F. Laudel, The Hine Laboratories, Inc., San Francisco, California and the Department of Pharmacology and Experimental Therapeutics (Toxicology Activity), School of Medicine, University of California at San Francisco, San Francisco, California.
- 9:40 25. Ethanol Effects on Chloral Hydrate Metabolism in Mice.** H. L. Kaplan, R. B. Forney, F. W. Hughes, A. B. Richards, and N. Jain, Department of Pharmacology and Toxicology, Indiana University Medical Center, Indianapolis, Indiana.
- 10:00 26. Effect of Hepatocarcinogens on the Metabolism of Some Radionuclides by Rats.** D. D. Mahlum and H. A. Kornberg, Biology Dept., Battelle Memorial Institute, Pacific Northwest Laboratory, Richland, Washington.
- 10:20 27. Joint Action of Uranium and Niobium on the Urinary Excretion of Electrolytes.** William L. Downs and Charles L. Yuile, Dept. of Radiation Biology and Biophysics, University of Rochester, Rochester, New York.
- 10:40 28. Responses of Rats to Carbachol, Oxotremorine, Decamethonium and D-Tubocurarine Following Subacute Administration of an Organophosphorus Cholinesterase Inhibitor.** Joseph J. McPhillips, Dept. of Pharmacology, Medical College of Virginia, Richmond, Virginia. (Sponsor: P. S. Larson).
- 11:00 29. Effect of Alkyl Substituted 2-Aminoethanols on Cholinesterase and Choline Oxidase Activity.** Rolf Hartung and Herbert H. Cornish, Dept. of Industrial Health, School of Public Health, The University of Michigan, Ann Arbor, Michigan.
- 11:20 30. Toxicity of Combinations of Glyceryl Trinitrate and Sympathomimetics.** Donald L. Oddyke, Clyde M. Burnett and James C. Munch, Revlon Research Center, Inc., Bronx, New York.
- 11:40 31. Effects of Prolonged Methylchloroform Inhalation on the Drug Induced CNS Activity.** Harbans Lal and Hasmukh Shah, The University of Kansas, Lawrence, Kansas.

FRIDAY, MARCH 24, 1967

FRIDAY MORNING

GRAND BALLROOM S

Chairman: Henry Sherman
Haskell Laboratory
E. I. du Pont de Nemours and Company
Wilmington, Delaware

- 9:00 **32. Ultrastructural Study of Absorption of Methoxychlor in Rat Jejunal Mucosa.** Hideshige Imai and Frederick Coulston, Institute of Experimental Pathology and Toxicology and Dept. of Pathology, Albany Medical College, Albany, New York.
- 9:20 **33. Effects of Oral Doses of Carbaryl on Man.** J. H. Wills, E. Jameson, A. Stein, D. Serrone, and F. Coulston, The Institute of Experimental Pathology and Toxicology, Albany Medical College, Albany, New York, Clinton Prison, Dannemora, New York, and New York State Pesticide Control Board, Albany, New York.
- 9:40 **34. The Metabolism of Carbaryl in Man.** J. B. Knaak, L. J. Sullivan, and J. H. Wills, Mellon Institute, Pittsburgh, Pa. and The Institute of Experimental Pathology and Toxicology, Albany Medical College of Union University, Albany, New York. (Sponsor: H. F. Smyth, Jr.).
- 10:00 **35. Physico-Chemical Changes in Pesticides after Formulation Producing Toxicological Problems.** G. E. Quinby, State of Washington Dept. of Health, Olympia, Washington.
- 10:20 **36. Urinary Organic Extractable Phosphate after Phosphate Ester Poisoning.** Eric G. Comstock and Charlotte Watts, Houston, Texas. (Sponsor: J. A. Zapp, Jr.)
- 10:40 **37. The Effect of Dieldrin Insecticide on Rhesus Monkeys after Three Years of Ingestion.** M. R. Zavon, R. Tye, and K. Stemmer, Kettering Laboratory, University of Cincinnati, Cincinnati, Ohio. (Sponsor: C. S. Weil).
- 11:00 **38. Comparative Anticholinesterase Action of Organophosphate Insecticides in Mammals, Birds and Fishes.** S. D. Murphy, R. R. Lawwerys and K. L. Cheever, Dept. of Physiology, Harvard School of Public Health, Boston, Massachusetts.
- 11:20 **39. Feeding of Malathion and Sevin to Laying Hens and to Roosters.** M. Ghadiri, D. A. Greenwood and W. Binns, Utah State University, Animal Disease and Parasite Research Laboratory, Logan, Utah.
- 11:40 **40. A Study of Liver Phospholipase Activity in Normal and Pesticide-Treated Rats.** Clara H. Williams, and Keith H. Jacobson, Division of Toxicological Evaluation, Food and Drug Administration, U. S. Dept. of Health, Education, and Welfare, Washington, D. C.

FRIDAY, MARCH 24, 1967

FRIDAY AFTERNOON

TARA 1,2,3

Chairman: John F. Griffith

Miami Valley Labs.

The Procter and Gamble Co.

Cincinnati, Ohio

- 1:30 41. Cataractogenicity of Various Drugs in Rats.** S. Gordon and T. Balazs, Toxicology Research Section, Lederle Laboratories, Div. of American Cyanamid Company, Pearl River, New York.
- 1:50 42. Use of the Rhesus Monkey for Predicting Human Response to Eye Irritants.** John H. Beckley, Thomas J. Russell, Jr. and Lionel F. Rubin. Colgate-Palmolive Co., (New York, N. Y.) Bio/dynamics, Inc., East Millstone, New Jersey, and University of Pennsylvania, Philadelphia, Pennsylvania. (Sponsor: T. O. King).
- 2:10 43. Interlaboratory Comparative Evaluation of Single Oral Test.** Carrol S. Weil and George J. Wright, Mellon Institute, Pittsburgh, Pennsylvania, and The Dow Chemical Company, Midland, Michigan.
- 2:30 44. Use of the Rhesus Monkey for Predicting the Toxic Effects of Detergents in Humans.** John H. Beckley, Thomas J. Russell, Jr. and John R. McCoy, Colgate-Palmolive Co., New York, N. Y., and Bio/dynamics, Inc., East Millstone, New Jersey. (Sponsor: T. O. King).
- 2:50 45. Toxicological Observations on the Venom of the Desert Ant Pogonomyrmex Barbatus.** Martin W. Williams and Charles S. Williams, Veterans Administration Hospital, Tucson, Arizona.
- 3:10 46. A Comparison of the Toxicity of Thiopental Given Rectally versus Orally to Albino Rats.** Jasbir Singh and Eldon M. Boyd, Dept. of Pharmacology, Queen's University, Kingston, Ontario, Canada.
- 3:30 47. Studies on Cobalt Toxicity.** G. S. Wiberg, I. C. Munro and H. C. Grice, Pathology and Toxicology Section, Research Laboratories, Food and Drug Directorate, Dept. of National Health and Welfare, Ottawa, Ontario, Canada.
- 3:50 48. The Computer Management of Toxicological Data.** Thomas J. Russell, Jr., Bio/dynamics, Inc., East Millstone, New Jersey. (Sponsor: T. O. King).

7:00 Society of Toxicology Banquet

Grand Ballroom C & N

Richard C. Bates, M.D.—Speaker

Topic: "How to Live to 100"

*Speaker appears through the courtesy of
General Motors Corporation*

FRIDAY, MARCH 24, 1967

FRIDAY AFTERNOON

GRAND BALLROOM S

Chairman: Charles J. Kensler
Arthur D. Little, Inc.
Cambridge, Massachusetts

- 1:30 49. Toxic Effects of Oral Administration of 3, 4-Benzfluoranthene and Other Polynuclear Hydrocarbons on Mice.** F. E. Reno, H. C. Millar and D. A. Greenwood, Utah State University, Logan, Utah.
- 1:50 50. Synergism Among Oral Carcinogens IV. Results of the Simultaneous Feeding of Four Tumorigens to Rats.** W. B. Deichmann, M. L. Keplinger and E. M. Glass, Dept. of Pharmacology and the Research and Teaching Center of Toxicology, University of Miami, School of Medicine, Coral Gables, Florida.
- 2:10 51. Metabolites of 1- and 2-Naphthylamine in the Urine of Dogs.** Jack L. Radomski and Earl Brill, Dept. of Pharmacology and Research and Teaching Center of Toxicology, University of Miami, School of Medicine, Miami, Florida.
- 2:30 52. The Possible Complicity of Diphenylamine in the Origin of Tumors in the Manufacture of Benzidine.** Josef Marhold, Industrial Toxicology Division, Research Institute for Organic Synthesis, Pardubice-Rybitivi, Czechoslovakia.
- 2:50 53. Fluoroacetate Toxicity by a new Antitumor Agent, Cyclohexyl - Fluorethyl - Nitrosourea.** E. R. Homan, V. T. Oliverio and H. Feinman, National Cancer Institute, Bethesda, Maryland and Hazleton Laboratories, Inc., Falls Church, Virginia. (Sponsor: D. P. Rall).
- 3:10 54. Early Acute Aflatoxicosis Stimulates Rainbow Trout Hepatomagenesis.** J. E. Halver, L. M. Ashley, C. E. Smith and G. N. Wogan, Western Fish Nutrition Laboratory, Bureau of Sport Fisheries and Wildlife, U. S. Dept. of the Interior, Cook, Washington and Department of Nutrition and Food Science, Massachusetts Institute of Technology, Cambridge, Massachusetts.
- 3:30 55. The Effect of Acetanilide on Toxicity and Metabolism of N-2-Fluorenylacetylamide.** R. S. Yamamoto, P. H. Grantham, L. Mohan, E. K. Weisburger, and J. H. Weisburger, Biology Branch, National Cancer Institute, Bethesda, Maryland.
- 3:50 56. The Metabolism of Nickel⁶³ Carbonyl.** F. W. Sunderman, Jr., C. E. Selin, G. L. Casal, H. L. Wheeler and H. L. Cromroy, Departments of Pathology and Radiation Biology, University of Florida College of Medicine, Gainesville, Florida.

7:00 Society of Toxicology Banquet
Grand Ballroom C & N

Richard C. Bates, M.D.—Speaker
Topic: "How to Live to 100"

*Speaker appears through the courtesy of
General Motors Corporation*

SATURDAY, MARCH 25, 1967

SATURDAY MORNING

TARA 1,2,3

Chairman: Sheldon D. Murphy
Harvard Univ. School of Public Health
Boston, Massachusetts

- 9:00 57. **Urinary Excretion of Primidone and Its Metabolites in Rabbits.** J. M. Fujimoto, W. H. Mason and J. G. Hamilton, Department of Pharmacology, Tulane Medical School, New Orleans, Louisiana.
- 9:20 58. **Toxicity Studies of Folate Deficiency States.** R. E. Bagdon, F. Hall, F. Hemrick and H. Eisenbeis, Dept. of Pharmacology, Research Division, Hoffmann-La Roche Inc., Nutley, New Jersey.
- 9:40 59. **Tris (1-aziridinyl) phosphine oxide: Studies of Distribution and Metabolism in the Rat Using Carbon-14.** George J. Wright and V. K. Rowe, Biochemical Research Laboratory, The Dow Chemical Company, Midland, Michigan.
- 10:00 60. **Ethylenimine: Studies of the Distribution and Metabolism in the Rat Using Carbon-14.** George J. Wright and V. K. Rowe, Biochemical Research Laboratory, The Dow Chemical Company, Midland, Michigan.
- 10:20 61. **The Fate of 2,6-Bis (1'-methylheptadecyl)-p-cresol (DOPC) in Rats.** B. D. Astill and D. W. Fassett, Laboratory of Industrial Medicine, Eastman Kodak Company, Rochester, New York.
- 10:40 62. **Studies on the Physiologic Effects of 2,6-Bis(1'-methylheptadecyl)-p-cresol (DOPC) in the Rat and Dog.** C. J. Terhaar, R. L. Roudabush, D. W. Fassett, and M. S. Weinberg, Laboratory of Industrial Medicine, Eastman Kodak Company, Rochester, N. Y. and Food and Drug Research Laboratories, Inc., Maspeth, New York.
- 11:00 63. **Species Variation in the Plasma Disappearance, Metabolism, Storage, and Excretion of Sulfbromophthalein.** Curtis D. Klaassen and Gabriel L. Plaa, Department of Pharmacology, College of Medicine, University of Iowa, Iowa City, Iowa.
- 11:20 64. **Distribution and Excretion of ¹⁴C-Monomethylhydrazine.** Mildred K. Pinkerton, Edgar A. Hagan, and Kenneth C. Back, Toxicology Branch, Toxic Hazards Division, 6570th Aerospace Medical Research Laboratories (MR-MPT), Wright-Patterson Air Force Base, Ohio.
- 11:40 65. **Kidney Damage and the Rates of Metabolism of Organo-Mercurials.** T. W. Clarkson, Dept. of Radiation Biology, University of Rochester, Rochester, N. Y. (Sponsor: H. C. Hodge).

SATURDAY, MARCH 25, 1967

SATURDAY MORNING

GRAND BALLROOM 5

Chairman: Freddy Homburger
Bio-Research Institute, Inc.
Cambridge, Massachusetts

- 9:00 66. **The Toxicology of Vibramycin.** C. S. Delahunt, R. T. Jacobs, R. B. Stebbins, and N. Rieser, Department of Pharmacology, Chas. Pfizer & Co., Inc., Groton, Connecticut.
- 9:20 67. **The Effect of Chlorpromazine, Phenobarbital and Iproniazid on the Polyphasic Mortality Curve of Aggregate Amphetamine.** D. E. Smith, C. M. Fischer and C. H. Hine, Department of Pharmacology and Experimental Therapeutics (Toxicology Activity), School of Medicine, University of California at San Francisco, San Francisco, California.
- 9:40 68. **Acute Toxicity of Chlorinated Pyridines.** P. J. Gehring, T. R. Torkelson, and F. Oyen, The Dow Chemical Company, Midland, Michigan. (Sponsor: V. K. Rowe).
- 10:00 69. **Safety Toxicity of Vancide-TH.** R. M. McClain, C. L. Winek, and S. P. Shanor, Department of Pharmacology and Toxicology, Duquesne University, Pittsburgh, Pennsylvania.
- 10:20 70. **Comparative Toxicology of 2,6-Dichloro-4-Nitroaniline (Botran®) in Rats and Rhesus Monkeys.** D. M. Serrone, P. Pakdaman, A. A. Stein and F. Coulston, The Institute of Experimental Pathology and Toxicology, Albany Medical College of Union University, Albany, New York.
- 10:40 71. **The Toxicity of Musk Ambrette.** Dowell A. Davis, Jean M. Taylor, William I. Jones, and Juan B. Brouwer, Division of Toxicological Evaluation, Food and Drug Administration, U. S. Department of Health, Education, and Welfare, Washington, D. C.
- 11:00 72. **Toxicity of Oil of Calamus (Jammu Variety).** Jean M. Taylor, William I. Jones, Ernest C. Hagan, M. Adrian Gross, Dowell A. Davis, and Ernest L. Cook, Division of Toxicological Evaluation, Food and Drug Administration, U. S. Dept. of Health, Education and Welfare, Washington, D. C.
- 11:20 73. **Toxicity of the Genus Dieffenbachia.** J. E. Manno, F. W. Fochtman, C. L. Winek, and S. P. Shanor, Dept. of Pharmacology and Toxicology, Duquesne University, Pittsburgh, Pennsylvania.
- 11:40 74. **Analgesic and Narcotic Antagonist Properties of Noroxymorphone Derivatives.** Harold Blumberg, Hyman B. Dayton, and Peter S. Wolf. Endo Laboratories, Garden City, New York.

SATURDAY, MARCH 25, 1967

SATURDAY AFTERNOON

TARA 1,2,3

Chairman: Gale C. Boxill
Warner Lambert Research Institute
Morris Plains, New Jersey

- 1:30 75. **The 90-Dose LD50 and a Chronicity Factor as Measures of Toxicity.** Wayland J. Hayes, Jr., Office of Pesticides, Communicable Disease Center, U. S. Public Health Service, Atlanta, Georgia.
- 1:50 76. **Toxicologic Studies on Repeated Intravenous Dosages of 5-Trifluoromethyl-2'-Deoxyuridine (F3TDR) in Dogs and Monkeys.** Paul E. Palm, Margaret S. Nick, John T. Funkhouser and Charles J. Kensler, Life Sciences and Research and Development Divisions, Arthur D. Little, Inc., Cambridge, Massachusetts.
- 2:10 77. **Toxicology and Pathology of Repeated Doses of Monomethylhydrazine in Monkeys.** Kenneth C. Back and Mildred K. Pinkerton, Toxicology Branch, Toxic Hazards Division, 6570th Aerospace Medical Research Laboratories (MRMPT), Wright-Patterson Air Force Base, Ohio.
- 2:30 78. **Chronic Toxicological Study with Estrogens in Rats.** John P. Gibson, James W. Newberne, and John R. Elsea, The Scientific Laboratories, The Wm. S. Merrell Co., Division of Richardson-Merrell, Inc., Cincinnati, Ohio and Hill Top Research, Inc., Miami, Ohio.
- 2:50 79. **Comparison of Isoproterenol and Metaproterenol When Administered by Mouth Daily for Six Months to the Rhesus Monkey.** Geoffrey Woodard and Marie W. Woodard, Woodard Research Corporation, Herndon, Virginia.
- 3:10 80. **Placental Transport and Distribution of $Tl^{204}SO_4$ in Newborn Rats and Mice.** J. E. Gibson, C. P. Sigdestad and B. A. Becker, Dept. of Pharmacology, College of Medicine, University of Iowa, Iowa City, Iowa.
- 3:30 81. **Factors Influencing Measurement of Ethyl Alcohol in the Expired Air.** J. P. Aitchison, K. D. Parker and C. H. Hine, Department of Pharmacology and Experimental Therapeutics (Toxicology Activity), School of Medicine, University of California at San Francisco, San Francisco, California.

SATURDAY, MARCH 25, 1967

SATURDAY AFTERNOON

GRAND BALLROOM S

Chairman: Steven Carson
Food and Drug Research Labs., Inc.
Maspeh, New York

- 1:30 82. Inhibitory Effect of Cytoxan and Some Other Alkylating Agents on Hepatic Microsomal Enzymes.** R. G. Tardiff and K. P. DuBois, Toxicity Laboratory, University of Chicago, Chicago, Illinois.
- 1:50 83. Comparison of Microsomal Drug Metabolizing Enzyme Systems in Grouped and Individually Caged Rats.** T. Balazs and W. Dairman, Toxicology Evaluation Department, Toxicology Research Section, Lederle Laboratories, Division of American Cyanamid Company, Pearl River, New York.
- 2:10 84. Effects of Substituted Urea Herbicides on Activity of Hepatic Microsomal Enzymes.** F. K. Kinoshita and K. P. DuBois, Toxicity Laboratory, University of Chicago, Chicago, Illinois.
- 2:30 85. Some In Vitro Studies on the Kinetics of Phagocytosis of Inorganic Particulate Materials.** G. V. Metzger and L. J. Casarett, Department of Radiation Biology and Biophysics, University of Rochester Medical Center, Rochester, New York.
- 2:50 86. The Morphology of Lung Disease in Rats Poisoned with Hexamethylphosphoramide.** Renate D. Kimbrough and Vincent A. Sedlak, Office of Pesticides, Communicable Disease Center, U. S. Public Health Service, Atlanta, Georgia. (Sponsor: W. J. Hayes, Jr.)
- 3:10 87. Fission Products: Localization of The Transport of Cesium-137 in The Nephron of The Dog.** B. V. Rama Sastry, Charles T. Spalding and Lillian K. Owens, Dept. of Pharmacology, Vanderbilt University, Nashville, Tennessee.

APPOINTED COMMITTEES

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Gabriel L. Plaa

Panel On Toxicology Terminology

Earl H. Dearborn Henry F. Smyth, Jr.

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