

**Center for
Environmental/Occupational
Risk Analysis & Management**

COLLEGE OF PUBLIC HEALTH

OCCUPATIONAL, ENVIRONMENTAL &

AGRICULTURAL DISEASE CONTROL & PREVENTION

UNIVERSITY OF SOUTH FLORIDA

**Dr. Raymond D. Harbison
Professor & Director**

CURRICULUM VITAE

Raymond D. Harbison, M.S., Ph.D.
Center for Environmental/Occupational Risk Analysis & Management
College of Public Health
13201 Bruce B. Downs Blvd.
Tampa, Florida 33612-3805

Home Address: 15445 51st Drive
Wellborn, Florida 32094

Date and Place of Birth: January 1, 1943, Peru, Illinois

EDUCATION

Drake University, Des Moines, Iowa - 1961 to 1965, B.S.

University of Iowa, Iowa City, Iowa - 1965 to 1967, M.S. (Pharmacology) -
Thesis: Induced hyperbilirubinemia and a quantitative method or analysis of
diazotized bilirubin.

University of Iowa, College of Medicine, Iowa City, Iowa - 1967 to 1969, Ph.D.
(Pharmacology/Toxicology) - Dissertation: Studies on the mechanism of
teratogenic action and neonatal pharmacology of diphenylhydantoin.

SUMMARY OF EXPERIENCE

2003-PRESENT

ASSOCIATE MEMBER

H. LEE MOFFITT CANCER CENTER & RESEARCH INSTITUTE
TAMPA, FL

2003-PRESENT

CHAIRMAN, PUBLIC HEALTH OVERSIGHT COMMITTEE
SAUDI ARABIA

2002-PRESENT

RESEARCH PROFESSOR, Center for Environmental Diagnostics and Bioremediation
The University of West Florida
Pensacola, FL

2001-PRESENT

TRAINING DIRECTOR, NIOSH ,HAZARDOUS SUBSTANCES CONTINUING EDUCATION
TRAINING
NIOSH - EDUCATION AND RESEARCH CENTER, UNIVERSITY OF SOUTH FLORIDA

2000-PRESENT

BROWNFIELD ADVISORY BOARD- HILLSBOROUGH COUNTY, FLORIDA

2000-Present

Editorial Board- Research Communications in Pharmacology and Toxicology

1999-Present

Vice Chair, Technical Advisory Committee, Brownfield Advisory Board, City of Clearwater, Florida

1998-Present

Toxicologist, Research Service, Haley Veterans Administration Hospital, Tampa, Florida

1998-Present

Professor, Department of Pathology, College of Medicine, University of South Florida

1995-Present

Adjunct Professor, Department of Medicine, College of Medicine, State University of New York at Buffalo

1995-Present

Professor, Department of Pharmacology and Therapeutics, College of Medicine, University of South Florida

1995-Present

Professor, Department of Environmental and Occupational Health, College of Public Health, University of South Florida

1995-Present

Director, Center for Environmental/Occupational Risk Analysis & Management, College of Public Health, University of South Florida

1996-Present

Director, Certification of Hazardous Materials Handlers Review Course and Examination

1994-Present

National Institute of Health, Reviewers Reserve

1994-1995

Advisory Board of Center for Training, Research, and Education for Environmental Occupations (TREEO), University of Florida

1993-1997

American Cancer Society Study Review Group (Florida)

1993-1997

Academy of Toxicological Sciences, Board of Directors

1992-1997

Advisory Board of Earth 2020, the University of Virginia's Center for Environmental Policy

1991-1995

Faculty, Superfund University Training Institutes, East Tennessee State University and University of Virginia

1991-1995

Science Advisory Board Consultant, Environmental Health Committee, United States Environmental Protection Agency

1990-1995

Professor, Department of Pathology, College of Medicine, University of Florida

1989-1995

Director, Laboratory for Environmental and Human Toxicology, University of Florida

1989-1997

Speciality Staff, St. Vincent Infirmary Medical Center, Little Rock, Arkansas

1989-1996

Board of Advisors, The Environmental Institute

1989 - 1994

National Institute of Drug Abuse, Pharmacology II Study Review Group

1988-1995

Professor, Department of Pharmacology and Therapeutics, College of Medicine, University of Florida

1988-1995

Professor, Department of Physiological Sciences, Health Science Center, University of Florida

1987-1997

Clinical Professor, Department of Preventive Medicine, Medical College of Wisconsin, Milwaukee, Wisconsin

1986-1990

National Institute of Environmental Health Sciences Study Review Group

1984-1985

Chairman, National Institute of Occupational Safety and Health Study Review Group

1982-1986

Editorial Board, Fundamental and Applied Toxicology

1980-1990

Society of Toxicology Liaison with Teratology Society

1980-1988

Professor, Department of Pharmacology, University of Arkansas for Medical Sciences

1980-1984

National Institute of Occupational Safety and Health Study Review Committee

1979-Present

Editorial Board, Teratogenicity, Mutagenicity, Carcinogenicity

1977-1980

Director, Toxic Substance Control Laboratory and Associate Professor, Department of Pharmacology and Biochemistry, School of Medicine, Vanderbilt University, Nashville, Tennessee

1977-1980

Professional Affairs Committee - American Society for Pharmacology and Experimental Therapeutics

1977-1980

National Institute on Drug Abuse - Review of DAWN (Drug Abuse Warning Network)

1977-1979

Graduate Education Committee, Vanderbilt University

1977-1978

National Research Council Committee to Review Scientific Program of National Center for Toxicological Research

1976-1980

Editorial Board, Environmental Health Sciences

1976-1977

National Academy of Science, Advisory Center for Toxicology - Revision of Toxicity Testing Procedures for Consumer Protection Agency

1975-1976

Technical Committee of the Society of Toxicology, Chairman

1975-1976

National Institute on Drug Abuse Center Review Committee

1974-1980

Editorial Board, International Journal of Addictive Diseases

1974-1979

Vanderbilt Medical Center, Animal Care Committee

1974-1978

Consultant, U.S. Congressional Committee on Safety Assessment of Chemical Additives & Drugs

1974-1975

Standing Policy Committee on Biomedical Sciences, Vanderbilt School of Medicine; National Institute on Drug Abuse, Clinical Behavioral Review Committee

1974-1975

Co-Chairman, Technical Committee of the Society of Toxicology

1972-1976

Assistant Professor of Pharmacology and Biochemistry, Vanderbilt University School of Medicine

1971-1975

National Institutes of Mental Health-Narcotic Addiction and Drug Abuse Review Committee, Biomedical-Pharmacology-Toxicology

1971-1972

Assistant Professor, Department of Pharmacology, Tulane Medical School

1971-1972

Director of Teratology Section, Laboratory of Environmental Health, Department of Medicine, School of Medicine, Tulane University

1969-1970

Instructor of Pharmacology, Tulane Medical School

1965-1969

**USPHS Trainee, University of Iowa, Department of Pharmacology, College of Medicine,
Iowa City, Iowa**

PROFESSIONAL SOCIETIES

Rho Chi Honorary Pharmacy Society

Sigma Xi (Promotion of Research in Science)

American Association for the Advancement of Science

Teratology Society

Society of Toxicology

American Society for Pharmacology and Experimental Therapeutics

New York Academy of Science

Society for Risk Analysis

AWARDS

1978

Society of Toxicology Achievement Award

CERTIFICATION

1982

1987

1992

1997

2002

Certified in General Toxicology

Registration

Registered Professional Industrial Hygienist

1999

INDUSTRIAL EXPERIENCE

- **Occidental Oil - Worker safety in oil shale production**
- **Shell Development Corporation - Pesticide use and safety**
- **Petrolite Corporation - Health assessment of waste incineration methods**
- **Monsanto Corporation - Chemical mutagenesis and the workplace, environmental assessment of PCB pollution**
- **American Academy of Industrial Medicine - Women in the workplace**
- **Tennessee Occupational Safety Health Administration - Industrial toxicology training course**

- **Society Organic Chemical Manufacturing Association - Chemical carcinogenesis**
- **Sanitary Corporation of America - Worker safety at industrial residue landfill sites**
- **Ethyl Corporation - Chemical-induced mutagenesis and teratogenesis in the workplace**
- **State of Kentucky Bureau of Natural Resources - Toxicology training course for solid waste management personnel**
- **U.S. Environmental Protection Agency - Chemistry and toxicology of hazardous materials training course for spill management personnel**
- **Ecology and Environment, Inc. - Health and safety program advisor**
- **Texaco - Toxicology consultant**
- **Hooker Chemical Company - Evaluation of health effects at Love Canal**
- **Chemical Manufacturers Association - Technical review of health effects of PCBs**
- **American Petroleum Institute - Comments to EPA concerning Resource Conservation Recovery Act**
- **IBM Corporation - Reproductive hazard assessment**
- **U.S. Environmental Protection Agency - Rebuttable presumption review of pesticides (FIFRA)**
- **United States Department of Agriculture - Review of aerial pesticide applications**
- **State of Georgia Department of Environmental Protection - Toxicology training course for emergency environmental incident management**
- **State of North Carolina Environmental Resource Management Division - Toxicology training course for environmental management and public health personnel**
- **Exxon - Review of teratogenic hazard of benzene exposure**
- **U.S. Department of Justice - Evaluation of environmental and public health problems associated with Price Landfill, Atlantic City, New Jersey**

- U.S. Department of Justice - Evaluation of environmental and public health problems associated with Bridgeport Oil and Rental contamination of the Delaware River, Bridgeport, New Jersey
- U.S. Environmental Protection Agency - Evaluation of the environmental impact of dredging of the Hudson River for PCBs, New York
- U.S. Environmental Protection Agency - Evaluation of environmental and public health problems associated with LiPari Landfill in New Jersey
- Velsicol Chemical Corporation - Evaluation of health problems associated with Hardeman County Landfill
- U.S. Environmental Protection Agency - Review of environmental and public health information associated with Denny Farm Site, Verona, Missouri
- U.S. Environmental Protection Agency - Review of environmental and public health information associated with Rose Park Landfill, Salt Lake City, Utah
- U.S. Environmental Protection Agency - Evaluation of environmental and public health problems associated with Taylor Road Landfill, Tampa, Florida
- Dow Chemical Company - Evaluation of health problems associated with a degreasing operation in Tyler, Texas
- United States Environmental Protection Agency - Training course director for Toxicology and Risk Assessment for eight southeastern states. (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee)
- Monsanto Chemical Company - Evaluation of adverse health effects associated with PCB contamination of feed grain in Michigan
- American Bar Association - Short course concerning the role of expert testimony in environmental litigations.
- Gates Energy - Evaluation of the toxicity of metal hydrides
- Diversitech/Gen Corp. - Evaluation of mortality among PCB exposed tire and plastic fabricators
- BIC - Evaluation of reproductive workplace hazards
- Breed Industries - Assessment of health risks associated with airbags

GRANT SUPPORT

Effect of Environmental Toxicants

ES00782

1970-1982

on Perinatal Development

Effect of Marijuana on Perinatal Development	DA00141	1971-1974
Schleider Foundation Developmental Toxicology		1970-1972
Clinical Pharmacology - Toxicology Center	GM15431	1975-1981
Environmental Toxicology Center	ES00267	1972-1981
Synthesis and Study of New Chelating Agents	ES01018	1975-1981
Life Insurance Research Fund		1970-1981
National Conference on Control of Hazardous Materials Spills	EPA	1977-1978
Wampole Laboratories - Development of a Prenatal Diagnostic Aid for Neurotube Defects		1979-1981
Introduction to Hazardous Materials Incidence Responses and Environmental Hazards Evaluation	EPA	1980-1981
Environmental Toxicant Effects on Perinatal Development	ES02824	1981-1986
Study of the Reproductive Toxicity of Selected Chemicals	NF	1985-1987
Studies of Chemical-Induced Toxicity and Stress	ES05216	1988-1994
Studies of Isomer Specific PCB- Induced Toxicity	*Cooperative Agreement	1989-1991
Mechanism of Cocaine-Induced Liver Toxicity	NIDA	1990-1991

Methamphetamine-Induced Toxicity	NIDA	1991-1994
Toxicology Support	**DER/DEP	1991-1995
Radon Risk Assessment	HUD	1994-1996
Pediatric Formula Evaluation	Mead-Johnson	1994-1996
Halocarbon Toxicity	COPH	1995-1996
Assessment of Risk Associated with Vitrified Materials	DOE	1996-1997
Evaluation of Airbag Safety	Breed Industries	1997-1998
Adrenergic Modulation of Stress-Induced changes in Pesticide Toxicity	NIOSH-Center for Agricultural Research And Education	1999-2000
Pesticide-Induced Toxicity	NIOSH	1999-2000
PAH-induced Cellular Changes	NIOSH	2000-2001
Environmental Health Monitoring	General Hlth Systems	2000-2003
Florida Biomonitoring	CDC	2001-2003
Arsenic Physician's Workgroup	FL DOH	2001-2002
Adrenergic Alterations of Toxins-Toxicants	DOD	20001-2003
Clinical Toxicology Evaluation of Health Among Residents of Escambia County, FL	CDC	2002-2003
Assessment of Public Health Risks of <u>Blue/Green Algae Cyanobacter</u>	FL DOH	2002-2003

***Department of Environmental and Community Medicine UMDNJ - Robert Wood Johnson**

Medical School Piscataway, New Jersey

****Department of Environmental Regulation/ Dept of Environmental Protection, State of Florida**

ES - National Institute of Environmental Health Sciences	COPH-College of Public Hlth
DA - National Institute on Drug Abuse	DOE- Dept of Energy
GM - National Institute of General Medical Sciences	DOD- Dept of Defense
EPA - United States Environmental Protection Agency	DOH- Dept of Health
NF - National Foundation March of Dimes	
NIDA - National Institute on Drug Abuse	
NIOSH-National Institute of Occupational Safety & Health	
HUD - Housing and Urban Development	
CDC-Center for Disease Control, United States Public Health Service	

TEACHING EXPERIENCE

Medical Toxicology	Vanderbilt Medical Center Second Year Medical Pharmacology
Developmental Pharmacology	Vanderbilt Medical Center
Drug Metabolism	Two Hour Graduate Level Course Vanderbilt Medical Center
Toxicology	Two Hour Graduate Level Course Vanderbilt Medical Center
Medical Toxicology	Second Year Medical Pharmacology University of Arkansas for Medical Sciences
Advanced Toxicology	Two Hour Graduate Level Course University of Arkansas for Medical Sciences
Oncology	Two Hour Graduate Level Course University of Arkansas for Medical Sciences
Chemical Carcinogenesis	Second Year Medical Pathology University of Florida, College of Medicine

Medical Toxicology	Second Year Medical Pharmacology University of Florida, College of Medicine University of South Florida, College of Medicine
Mechanism of Chemical-Induced Toxicity	Two Hour Graduate Level Course University of Florida, College of Medicine
Introductory Toxicology	Three Hour Graduate Level Course University of Florida, College of Medicine
Health Implications/ Aspects of Chemical Issues	Superfund University Training Institute East Tennessee State University, University of Virginia, Environmental Protection Agency
Risk Assessment • Industrial • Occupational • Environmental	Two Hour Graduate Level Course University of South Florida, College of Public Health
Occupational and Environmental Medicine	Two Hour Graduate Level Course University of South Florida, College of Public Health
Biomonitoring	Two Hour Graduate Level Course University of South Florida, College of Public Health

CONTINUING EDUCATION:

National Hazardous Materials Training Course	Eight Hours (Toxicology)
Hazardous Waste Management	Four Hours (Toxicology)
Toxic Substance Control	Eight Hours (Toxicology)
Environmental Protection Agency, Region IV, Health and Safety Training School	Six Hours (Toxicology)
Industrial Toxicology	Five Hours (Carcinogenesis, Teratogenesis)
Forensic Medicine	Three Hours (Toxicology)
Toxicology and Risk Assessment	Eight Hours

Certification for Hazardous
Materials Managers
Neurology and Solvent
Encephalopathy

Twenty Four Hours (NIOSH - ERC)

Eight Hours (NIOSH - ERC)

Toxicology and Risk Assessment

Eleven Hours (NIOSH - ERC)

GRADUATE TRAINING - PREDOCTORAL

	<u>Year Degree Conferred</u>	<u>Present Address</u>
Bernardo Mantilla-Plata, Ph.D.	1972	University of Antioquia Department of Toxicology Medellin, Columbia
Michael Stevens, Ph.D.	1973	Monsanto Chemical Company Toxicology Department St. Louis, Missouri
Richard W. Freeman, Ph.D.	1980	Ecology and Environment, Inc. Tallahassee, Florida
Michael E. Fant, M.D., Ph.D Medicine	1980	Department of Pediatrics Washington University, School of St. Louis, Missouri
Adeline Smith, Ph.D.	1982	National Institute of Health Div. of Molecular Toxicology Bethesda, Maryland
James Jernigan, Ph.D.	1983	Amoco Chicago, Illinois
Christopher Teaf, Ph.D.	1985	Florida State University Center for Biomedical and Hazardous Waste Research Tallahassee, Florida
Felix Adatsi, Ph.D.	1986	Department of Natural Resources State of Michigan Lansing, Michigan

M. Ann Clevenger, Ph.D.	1987	EPA Washington, D.C.
Glenn C. Millner, Ph.D.	1987	Environmental Consultant Little Rock, Arkansas
Henry F. Simmons, M.D., Ph.D.	1988	Division of Clinical Toxicology University of Arkansas for Medical Little Rock, Arkansas
Mary Alice Smith, Ph.D.	1989	University of Georgia Athens, Georgia
Hudson K. Bates, Ph.D.	1989	Research Triangle Institute Research Triangle Park, NC
Roland Garipay, MSPH	1998	United States Navy Norfolk, Virginia
Todd Stedeford, Ph.D.	2000	Institute of Molecular Toxicology Kyoto, Japan
Deborah Price	2001	Environmental Health Pinellas County, FL
Rony Francois	2003	Public Health Practice University of South Florida College of Public Health

GRADUATE TRAINING - POSTDOCTORAL

	Years of Study	Present Address
Michael Evans, Ph.D.	1973-1976	Amer. Inst. Toxicology Indianapolis, Indiana
Chandrarhar Dwivedi, Ph.D.	1973-1976	Meharry Medical College Dept. of Pediatrics Nashville, Tennessee
Richard P. Koshakji, Ph.D.	1973-1976	Dept. of Pharmacology Vanderbilt Medical Center Nashville, Tennessee

James S. MacDonald	1975-1977	Merck Institute for Therapeutic Research West Point, Pennsylvania
Daniel Goodman, Ph.D.	1978-1980	Univ. of Arkansas Med. Sci. Div. of Interdis. Toxicology Little Rock, Arkansas
Robert C. James, Ph.D.	1979-1981	TERRA, Inc. Tallahassee, FL
Peter Wells, Pharm.D.	1979-1981	University of Toronto College of Pharmacy Toronto, Ontario, Canada
Shahata El-Sewedy, Ph.D.	1982-1983	University of Alexandria Medical Research Institute Alexandria, Egypt
Syed F. Ali, Ph.D.	1982-1983	Natl. Ctr. for Toxicol. Res. Jefferson, Arkansas
Jay Gandy, Ph.D.	1986-1987	Univ. of Arkansas Med. Sci. Dept. of Pharm. & Tox. Little Rock, Arkansas
Christopher Borgert	1991-1992	Univ. of Florida Dept. of Pathology Gainesville, Florida
Robert Demott	1993-1994	Exponent Tampa, Florida

PUBLICATIONS

- 1. Harbison, R.D., R.C. Boerth and J.L. Spratt. Quantitative determination of free and conjugated bilirubin by diazo coupling and a liquid-extraction and column-chromatographic technique. Biochem. J. 104:46c-47c, 1967.**
- 2. Harbison, R.D. and J.L. Spratt. Novobiocin-induced hyperbilirubinemia and its reduction by phenobarbital pretreatment. Toxicol. Appl. Pharmacol. 11:257-263, 1967.**
- 3. Harbison, R.D. and J.L. Spratt. Disappearance of plasma bilirubin fractions in the rat after phenobarbital. Arch. Int. Pharmacodyn. 172(1):32-36, 1968.**

4. Harbison, R.D. and B.A. Becker. Barbiturate mortality in hypothyroid and hyperthyroid rats. *J. Pharm. Sci.* 58(2):183-185, 1969.
5. Harbison, R.D., C.D. Klassen and B.A. Becker. Hemodynamics of the isolated perfused liver of hypothyroid and hyperthyroid rats. *Proc. Soc. Exper. Biol. Med.* 132:96-99, 1969.
6. Harbison, R.D. and B.A. Becker. Relation of dosage and time of administration of diphenylhydantoin and its teratogenic effect in mice. *Teratology* 2:305-311, 1969.
7. Eling, T.E., R.D. Harbison, B.A. Becker and J.R. Fouts. Diphenylhydantoin effect on neonatal and adult rat hepatic drug metabolism. *J. Pharmacol. Exp. Ther.* 171:127-137, 1970.
8. Eling, T.E., R.D. Harbison, B.A. Becker and J.R. Fouts. Kinetic changes in microsomal drug metabolism with age and diphenylhydantoin treatment. *Europ. J. Pharmacol.* 11:101-108, 1970.
9. Harbison, R.D. and B.A. Becker. Effect of phenobarbital and SKF 525-A pretreatment on diphenylhydantoin teratogenicity in mice. *J. Pharmacol. Exp. Ther.* 171:283-288, 1970.
10. Harbison, R.D. and B.A. Becker. Effect of phenobarbital or SKF 525-A pretreatment on diphenylhydantoin deposition in pregnant mice. *Toxicol. Appl. Pharmacol.* 20:573-581, 1971.
11. Harbison, R.D. and B. Mantilla-Plata. Prenatal toxicity, maternal distribution and placental transfer of tetrahydrocannabinol. *J. Pharmacol. Exp. Ther.* 180(2):446-453, 1972.
12. Harbison, R.D. and B.A. Becker. Diphenylhydantoin teratogenicity in rats. *Toxicol. Appl. Pharmacol.* 22:193-200, 1972.
13. Wilson, B.J. and R.D. Harbison. Rubratoxins. *J. Am. Vet. Med. Assoc.* 163(11): 1274-1276, 1973.
14. Koshakji, R.P., B.J. Wilson and R.D. Harbison. Effect of rubratoxin B on prenatal growth and development in mice. *Res. Comm. Chem. Pathol. Pharmacol.* 5:584-593, 1973.
15. Koshakji, R.P., J. Cole and R.D. Harbison. Influence of injection volume on parathion toxicity and plasma and brain cholinesterase inhibition. *Res. Comm. Chem. Pathol. Pharmacol.* 6(2):677-687, 1973.

16. Mantilla-Plata, B. and R.D. Harbison. Effect of phenobarbital and SKF 525-A pretreatment, sex, liver injury and vehicle on ⁹ tetrahydrocannabinol toxicity. *Toxicol. Appl. Pharmacol.* 27:123-130, 1974.
17. Jones, M.M. and R.D. Harbison. Phthalyltetrathioacetic acid (PTTA). A new chelating agent. *Res. Comm. Chem. Pathol. Pharmacol.* 7:390-398, 1974.
18. Stevens, M.W. and R.D. Harbison. Placental transfer of diphenylhydantoin: Effects of species, gestation age, and route of administration. *Teratology* 9:317-326, 1974.
19. Harbison, R.D. and B.A. Becker. Comparative teratogenicity of diphenylhydantoin and metabolites in mice. *Teratology* 10(3):237-242, 1974.
20. Dwivedi, C., R.D. Harbison, B. Ali and S. Parmar. Synthesis of substituted anilino-[3-methoxy-4-(4-arylthiosemicarbazidecarbonylmethyleneoxy)] benzylidenes: Correlation between anticonvulsant activity and monoamine oxidase inhibitory and antihemolytic properties. *J. Pharmaceut. Sci.* 63(7):1124-1128, 1974.
21. Parmar, S.S., B.R. Pandey, C. Dwivedi and R.D. Harbison. Anticonvulsant activity and monoamine oxidase inhibitory properties of 1,3,5-trisubstituted pyrazolines. *J. Pharmaceut. Sci.* 63(7):1152-1155, 1974.
22. Koshakji, R.P., B.V. Rama Sastry and R.D. Harbison. Studies on the levels and nature of cholinesterase in human and mouse placenta. *Res. Comm. Chem. Path. Pharmacol.* 9(2):687-692, 1974.
23. Harbison, R.D. and B.V. Rama Sastry. A functional cholinergic system in human placenta. In: *Basic and Therapeutic Aspects of Perinatal Pharmacology*, P.L. Morselli, et al., eds., Raven Press, New York, 1975.
24. Harbison, R.D., ed., *Perinatal Addiction*, Spectrum Press, New York, 1975.
25. Ali, B., S.S. Parmar, C. Dwivedi and R.D. Harbison. Selective inhibition of nicotinamide adeninedinucleotide-dependent oxidations by substituted carbamides. *Res. Comm. Chem. Pathol. Pharmacol.* 11(1):163-166, 1975.
26. Ali, B., R. Kumar, S.S. Parmar, C. Dwivedi and R.D. Harbison. Antihemolytic and anticonvulsant activity of 1-(2,4-dichloro/2,4,5-trichlorophenoxyacetyl)-4-alkyl/ arylthiosemicarbazides and their relationship between inhibition of NAD-dependent oxidations and monoamine oxidase. *J. Pharmaceut. Sci.* 64(8):1329-1335, 1975.

27. Gupta, A.K., C. Dwivedi, T.K. Gupta, S.S. Parmar and R.D. Harbison. Synthesis of 2-(N-arylcarboxamide)-3-substituted ethoxyindoles and their monoamine oxidase inhibitory and anticonvulsant activities. *J. Pharmaceut. Sci.* 64(6):1001-1005, 1975.
28. Evans, M.A., M.W. Stevens, B. Mantilla-Plata and R.D. Harbison. Drugs of abuse, teratogenic and mutagenic considerations. *Addictive Diseases: An International Journal.* Vol II(1):45-59, 1975.
29. Harbison, R.D. and M.C. Braude. Overview of perinatal narcotic addiction and future research goals in developmental pharmacology of abused drugs. *Addictive Diseases: An International Journal.* Vol. II(1):1-5, 1975.
30. Dwivedi, C. and R.D. Harbison. Anticonvulsant activities of Δ^8 and Δ^9 -tetrahydrocannabinol and uridine. *Toxicol. Appl. Pharmacol.* 31:452-458, 1975.
31. Harbison, R.D. Parathion-induced toxicity and phenobarbital-induced protection against parathion during prenatal development. *Toxicol. Appl. Pharmacol.* 32(3):482-493, 1975.
32. Mantilla-Plata, B., G.L. Clewe and R.D. Harbison. Δ^9 -tetrahydrocannabinol-induced changes in prenatal growth and development of mice. *Toxicol. Appl. Pharmacol.* 33:333-340, 1975.
33. Harbison, R.D. Comparative toxicity of some selected pesticides in neonatal and adult rats. *Toxicol. Appl. Pharmacol.* 32(2):443-455, 1975.
34. Mantilla-Plata, B. and R.D. Harbison. Influence of alteration of THC metabolism on THC-induced teratogenesis. In: *The Pharmacology of Marijuana*, Raven Press, pp. 733-742, 1975.
35. Jones, M.M., D.H. Cable, T.H. Pratt and R.D. Harbison. Preparation and properties of a polymer which selectively binds mercury (II). *J. Inorg. Nuclear Chem.* 37:2409-2410, 1975.
36. Mantilla-Plata, B. and R.D. Harbison. Alteration of Δ^9 -tetrahydrocannabinol induced prenatal toxicity by phenobarbital and SKF-525A. In: *Marijuana: Chemistry, Biochemistry and Cellular Effects.* 469-480, Springer-Verlag, New York, 1976.
37. Harbison, R.D., C. Dwivedi and M.A. Evans. A proposed mechanism for trimethylphosphate-induced sterility. *Toxicol. Appl. Pharmacol.* 35:481-490, 1976.

38. Sastry, B.V., J. Olubadewo, R.D. Harbison and D.E. Schmidt. Human placental cholinergic systems: Occurrence, distribution and variation with gestational age of acetylcholine in human placenta. *Biochem. Pharmacol.* 25:425-431, 1976.
39. Jones, M.M., T.H. Pratt, W.G. Mitchell, R.D. Harbison and J.S. MacDonald. Enterohepatic chelating agents. I. General principles and examples. *J. Inorg. Nuclear Chem.* 38:613-616, 1976.
40. Bishop, M.R., B.V. Sastry, D.E. Schmidt and R.D. Harbison. Occurrence of choline acetyltransferase and acetylcholine and other quaternary ammonium compounds in mammalian spermatozoa. *Biochem. Pharmacol.* 25:1617-1622, 1976.
41. Evans, M.A., R.D. Harbison, D.J. Brown and R.D. Forney. Stimulant actions of delta⁹-tetrahydrocannabinol in mice. *Psychopharmacology* 50:245-250, 1976.
42. Evans, M.A., C. Dwivedi and R.D. Harbison. Enhancement of cocaine-induced lethality by phenobarbital. In: *Cocaine and Other Stimulants*, Plenum Publishing Co., pp. 253-267, 1976.
43. Harbison, R.D., M.C. Orgebin-Crist, C. Dwivedi and B.V. Rama Sastry. Choline acetyltransferase activity in sperm of rabbit and man: Possible involvement in TMP-induced sterility. In: *Recent Developments in Contraceptive Technology*, Ankur Pub., New Delhi, pp. 125-131, 1976.
44. MacDonald, J.S. and R.D. Harbison. Methyl mercury-induced encephalopathy in mice. *Toxicol. Appl. Pharmacol.* 39:195-205, 1977.
45. Evans, M.A. and R.D. Harbison. Prenatal toxicity of rubratoxin B and its hydrogenated analog. *Toxicol. Appl. Pharmacol.* 39:13-22, 1977.
46. Gerber, J.G., J.S. MacDonald, R.D. Harbison, J.P. Villeneuve, A.J. Wood and A.S. Nies. Effect of N-acetylcysteine on hepatic covalent binding of paracetamol (acetaminophen). *Lancet*, pp. 657-658, 1977.
47. Harbison, R.D. and M.A. Evans. Teratogenic aspects of drug abuse in pregnancy. In: *Drug Abuse in Pregnancy and Neonatal Effects*, J. L. Rementeria (ed.), C.V. Mosby, St. Louis, MO, pp. 181-194, 1977.
48. Evans, M.A. and R.D. Harbison. Cocaine, marihuana, LSD: Pharmacological effects in the fetus and newborn. In: *Drug Abuse in Pregnancy and Neonatal Effects*, J. L. Rementeria (ed.), C.V. Mosby, St. Louis, MO, pp. 195-208, 1977.

49. Harbison, R.D., M.M. Jones, J.S. MacDonald, T.H. Pratt and R.L. Coates. Synthesis and pharmacological study of a polymer which selectively binds mercury. *Toxicol. Appl. Pharmacol.* 42:445-454, 1977.
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ABSTRACTS
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