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CERTIFICATION: Certified in General Toxicology, American Board of Toxicology (ABT) 1990
ABT Recertification, 1995
ABT Recertification, 2000
ABT Recertification, 2005

RESEARCH INTERESTS
Development of acute exposure indices for airborne toxicants
Animal toxins; mechanisms of action and the use of natural toxins as pharmacologic tools
Metabolism of xenobiotics

EDUCATION
NIEHS Postdoctoral Fellow. 1988. Department of Pharmacology and Toxicology, University of Mississippi Medical Center

Ph.D., Physiology, 1983. Dept. Physiology and Pharmacology, Southern Illinois University, Carbondale, IL

PROFESSIONAL ACTIVITIES AND SERVICES
Committee Member: National Research Council, Committee on Toxicology, Subcommittee on Exposure Guidance Levels for Selected Hydrofluorocarbons (1998-2000)

Material Chemical Risk Assessment Working Group, Environmental Risk Assessment Program of the Strategic Environmental Research Development Program (1994-1997)

National Advisory Committee on Acute Exposure Guideline Levels (AEGL); ORNL staff contributor for preparation of AEGL technical support documents; presentation of work at NAC/AEGL and NAS/COT (1996-current)

AEGL Standing Operating Procedures Working Group (ORNL liaison) (1996-current)

Technical Consultant: Defense Threat Reduction Agency, Chemical and Biological (CB) Directorate: Therapeutics Research Review Panel. April 2005.

National Research Council, Committee on Toxicology, Subcommittee on Emergency and Continuous Exposure Guidance Levels for Selected Submarine Contaminants (2004)

Subcontract technical support to Jacobs Engineering Group regarding a toxicity assessments of hydrogen fuel cell (Millenium Cell) components (2004)

Contributor Subcontract technical support to Army-wide guidance document distributed by the Office of the Army Surgeon General: "Chronic Toxicological Criteria for Chemical Warfare Compounds;" Memorandum sent through Assistant Surgeon General for Force Protection, Office of the Surgeon General by BG Lester Martinez-Lopez, Functional Proponent for Preventive Medicine, US Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, MD (16 Feb 2000).

Ad hoc Reviewer *Toxicon*. Journal of the International Society on Toxinology

AWARDS AND GRANTS

ORNL Significant Event Award: Acute Exposure Guideline Levels for Selected Airborne Chemicals-Chemical Warfare Agents, September 2003
Appreciation Award, U.S. EPA., Acute Exposure Guideline Levels Program, January 2001
Letter of Commendation from U.S. Army Brigadier General Lester Matinze-Lopez and Commanders' Medallion Award (U. S. Army Center for Health Promotion and Preventive Medicine) in recognition of work conducted by ORNL Chemical Hazard Evaluation Team on health assessments for chemical warfare agents. November 2, 2000.
Co-Investigator, MS Affiliate Amer. Heart Assoc. grant, 1987-88
Best Paper Award, Southcentral Chapter SOT, 1987
Douglas-Walker Health Science Award, Miss. Acad. Sci., 1986
Dissertation Research Award Fellowship,SIU-C 1982
Sigma Xi Grant-in-Aid of Research, 1981

PUBLICATIONS AND PRESENTATIONS

PAPERS

2006 Watson, A., Opresko, D., Young, R., Hauschild, V. Development and application of acute exposure guideline levels (AEGLs) for chemical warfare nerve and sulfur mustard agents. *Journal of Toxicology and Environmental Health*, Part B Critical Reviews 9(2).

2005 Watson, A., Bakshi, K., Opresko, D., Young, R., Hauschild, V., King, J. Cholinesterase Inhibitors as Chemical Warfare Agents: Community Preparedness Guidelines. In: Gupta, R. ed. *Toxicology of Organophosphate and Carbamate Compounds*, pp. 47-68. Elsevier Science Ltd.

2004 Watson, A., Opresko, D., Young, R., Hauschild, V. Development and application of acute exposure guideline levels (AEGLs) for chemical warfare nerve and sulfur mustard agents. *Journal of Toxicology and Environmental Health*, Part B Critical Reviews. .

2003 Young, R. A. (Contributor). Acute Exposure Guideline Levels for Selected Airborne Chemicals. Vol. 3. National Research Council. National Academy Press, Washington, D.C.

2002 Young, R.A. (Contributor). "Health Assessment Document for Diesel Engine Exhaust". U.S. EPA, Natl. Center for Environ. Assessment, Office of Research and Development. EPA/608/8-90/057F.

2001 Opresko, D. M., Young, R. A., Watson, A. P., Faust, R. A., Talmage, S. S., Ross, R. A., Davidson, K. A., King, J. and Hauschild, V. , "Chemical Warfare Agents: Current Status of Oral Reference Doses." Rev. Environ. Contam. Toxicol., 172: 65-85.

2001 Thomas, R. Young, R.A. "Acute Exposure Guideline Levels for Arsine, Dimethylhydrazine and Monomethylhydrazine". *In* Bakshi, K.S., Krewski, D., Eds. Inhalation Toxicology 13: (suppl.1), pp. 43-144.

2001 Young, R.A. (Contributor). "Standing Operating Procedures for Developing Acute Exposure Guideline Levels for Hazardous Chemicals." National Research Council. National Academy Press, Washington, D.C.

2000 Young, R. A. (Contributor). Acute Exposure Guideline Levels for Selected Airborne Chemicals. Vol. 1. National Research Council. National Academy Press, Washington, D.C.

2000 Young R. A., Contributor to sponsor report "Evaluation of Airborne Exposure Limits for Sulfur Mustard: Occupational and General Population Exposure Criteria", Technical Report 47-EM-3767-00, U. S. Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, MD.

2000 Co-Author of Appendices A-F (Health Risk Assessments for Nerve Agents GA, GB, GD, VX, and Vesicant Agents HD and L), pp. 99-294 *in* Bakshi, K. S., Pang, S. N. J. and Snyder, R. (eds), "Review of the U. S. Army's health risk assessments for oral exposure to six chemical-warfare agents," Journal of Toxicology and Environmental Health 59 (5-6): 281-526.

1999 Young, R. A., Opresko, D. M., Watson, A. P., Ross, R. H., King, J., Choudhury, H. "Deriving Toxicity Values for Organophosphate Nerve Agents: A position paper in support of the procedures and rationale for deriving oral RfDs for chemical warfare nerve agents." Human and Environ. Risk Assess. 5:589-634.

1998 Opresko, D.M., Young, R.A., Faust, R..A., Talmage, S., Watson, A.P., Ross, R.H., Davidson, K.A., King, J. 1998. "Chemical warfare agents: estimating oral reference doses." Rev. Environ.Contam. Toxicol. 156: 1-183.

1995 Young, R.A. 1995,"*In vitro* activity of Duvernoy's gland secretions from the African boomslang, *Dispholidus typus*, on nerve-muscle preparations." J. Venom. Animals Toxins. 2: 2-4.

1992 *Young, R.A.9 1992 Effects of Duvernoy's gland secretions from the eastern hognose snake*, Heterodon platirhinos, on smooth muscle and neuromuscular junction." Toxicon 30: 775-779.

1990 Rao, S. B., R. A. Young and H. M. Mehendale. 1990. "Perturbations in polyamines and related enzymes following chlordecone potentiated bromotrichloromethane hepatotoxicity." J. Biochem. Toxicol. 5: 23-32.

1989 Kodavanti, Prasada Rao S., U. M. Joshi, R. A. Young, A. N. Bell, and H. M. Mehendale. 1989. Role of hepatocellular regeneration in chlordecone potentiated hepatotoxicity of carbon tetrachloride. Arch. Toxicol. 63: 367-375.

1989 Kodavanti, Prasada Rao, S., U. Joshi, R. A. Young, E. F. Meydrech, and H. M. Mehendale. 1989. Protection of hepatotoxic and lethal effects of CCl_4 by partial hepatectomy. Toxicol. Pathol. 17: 494-505.

Rao, S. B., R. A. Young, and H. M. Mehendale. 1989. Hepatic polyamines and related enzymes following chlordecone potentiated carbon tetrachloride toxicity in rats. J. Biochem. Toxicol. 4(1): 55-63.

T. L. Vandeventer, and Robert A. Young, "Rarities of the Longleaf: The Black and Louisiana Pine Snakes," *Vivarium*, **1**, 32-36.

Young, R. A. and H. M. Mehendale. 1989. Effects of short-term and long-term administration of amiodarone on hepatobiliary function in male rats. J. Appl. Toxicol. 9:407-412.

Young, R. A. and H. M. Mehendale. 1989. Carbon tetrachloride metabolism in partially hepatectomized and sham-operated rats pre-exposed to chlordecone (Kepone). J. Biochem. Toxicol. 4:211-219.

1988 Bell. A. N., R. A. Young, V. G. Lockard, and H. M. Mehendale. 1988. Protection of chlordecone potentiated carbon tetrachloride hepatotoxicity and lethality by partial hepatectomy. Arch. Toxicol. 61: 392-405.

Young,R.A. and T. L. Vandeventer, "Recent Observations on the Louisiana Pine Snake, *Pituophis melanoleucus ruthveni*," *Stull. Bull. Chi. Herp. Soc.*, 23(12), 203-207.

Young, R.A., T. L. Vandeventer, and R. L. Jones, "Distribution Notes: *Regina Septemvittata*," *Herp Review*, 19(3): 60.

1987 Young, R. A. and H. M. Mehendale. 1987. Effects of cytochrome P-450 modifying factors on metabolism of amiodarone by the rabbit and rat. Drug Metab. Disp. 15(4): 511-517.

1986 Young, R. A. and H. M. Mehendale. 1986. In vitro metabolism of amiodarone by rabbit and rat liver and small intestine. Drug Metab. Disp. 14: 423-429.

Young, R. A. and H. M. Mehendale. 1986. Effects of endrin and endrin derivatives on hepatobiliary function and CCl_4-induced hepatotoxicity in male and female rats. Food. Chem. Toxicol. 24(8): 863-868.

1974 Young, R. A. and D. M. Miller. 1974. Comparative study of the venoms of Elapidae, Crotalidae, Viperidae, and Boiginae. Trans. Il. St. Acad. Sci. 67(4): 444-450.

BOOKS

Young, R.A. 2005. Chapter contributor; diphenylhydarzine, dinitritoluene, dioctylphthalate, dioxins, dinitroanilines. *Encyclopedia of Toxicology*, Wexler, P., Ed. Academic Press, New York. 2nd ed. Chapters on.

Young, R.A. 1998. Chapter contributor. *Encyclopedia of Toxicology*, Wexler, P., Ed. Academic Press, New York.

Young, R.A., et al. 1990. *Air Force Installation Restoration Program Toxicology Guide.*
Comprehensive accounts on toxicology of nickel and cadmium. Harry G. Armstrong Aerospace Medical Research Laboratory, Aerospace Medical Division, Wright-Patterson Air Force Base, Ohio. (DOE Interagency Agreement No. 1891-A076-A1).

Young, R.A., et al. 1989. *Air Force Installation Restoration Program Toxicology Guide.*
Update of chapters on Carbon Tetrachloride, Diazinon, Tri-o-cresyl Phosphate, Lindane, Chlordane, and Malathion. Harry G. Armstrong Aerospace Medical Research Laboratory, Aerospace Medical Division, Wright-Patterson Air Force Base, Ohio. (DOE Interagency Agreement No. 1891-A076-A1).

Miller, D. M., B. S. Wong, and R. A. Young. 1978. Introductory Physiology: A Laboratory Approach. Stipes Publ. Co., Champaigne, IL.