

**Reference Citations From "Exposure and Human Health Reassessment of 2,3,7,8-Tetrachlorodibenzo-*p*-Dioxin (TCDD) and Related Compounds National Academy Sciences (NAS) Review Draft:" Part II and Part III**

**Part II: Health Assessment of 2,3,7,8-Tetrachlorodibenzo-*p*-Dioxin (TCDD) and Related Compounds and Part III: Integrated Summary and Risk Characterization for 2,3,7,8-Tetrachlorodibenzo-*p*-Dioxin (TCDD) and Related Compounds**

- Aafjes, J.H., J.M. Vels and E. Schenck. 1980. Fertility of rats with artificial oligozoospermia. *J. Reprod. Fertil.* 58:345-351.
- Aarts, J.M., M.S. Denison, M.A. Cox, M.A. Schalk, P.M. Garrison, K. Tullis, L.H. de Haan and A. Brouwer. 1995. Species-specific antagonism of Ah receptor action by 2,2',5,5'-tetrachloro- and 2,2',3,3',4,4'-hexachlorobiphenyl. *Eur. J. Pharmacol.* 293(4):463-474.
- Abbott, B.D. 1995. Review of the interaction between TCDD and glucocorticoids in embryonic palate. *Toxicology.* 105(2-3):365-373.
- Abbott, B.D. 1997. Developmental toxicity of dioxin: searching for the cellular and molecular basis of morphological responses. In: *Drug Toxicity in Embryonic Development II. Advances in Understanding Mechanisms of Birth Defects: Mechanistic Understanding of Human Developmental Toxicants*, R.J. Kavlock and G.P. Daston, Eds. Springer, New York, NY. pp. 407-433.
- Abbott, B.D. and L.S. Birnbaum. 1990a. Effects of TCDD on embryonic ureteric epithelial EGF receptor expression and cell proliferation. *Teratology.* 41(1):71-84.
- Abbott, B.D. and L.S. Birnbaum. 1990b. Rat embryonic palatal shelves respond to TCDD in organ culture. *Toxicol. Appl. Pharmacol.* 103(3):441-451.
- Abbott, B.D. and L.S. Birnbaum. 1990c. TCDD-induced altered expression of growth factors may have a role in producing cleft palate and enhancing the incidence of clefts after coadministration of retinoic acid and TCDD. *Toxicol. Appl. Pharmacol.* 106(3):418-432.
- Abbott, B.D. and L.S. Birnbaum. 1991. TCDD exposure of human embryonic palatal shelves in organ culture alters the differentiation of medial epithelial cells. *Teratology.* 43(2):119-132.
- Abbott, B.D. and L.S. Birnbaum. 1996. TCDD alters medial epithelial cell differentiation during palatogenesis. *Toxicol. Appl. Pharmacol.* 99:276-286.
- Abbott, B.D., K.S. Morgan, L.S. Birnbaum and R.M. Pratt. 1987. TCDD alters the extracellular matrix and basal lamina of the fetal mouse kidney. *Teratology.* 35(3):335-344.

- Abbott, B.D., J.J. Diliberto and L.S. Birnbaum. 1989. 2,3,7,8-Tetrachlorodibenzo-p-dioxin alters embryonic palatal medial epithelial cell differentiation in vitro. *Toxicol. Appl. Pharmacol.* 100(1):119-131.
- Abbott, B.D., M.W. Harris and L.S. Birnbaum. 1992. Comparisons of the effects of TCDD and hydrocortisone on growth factor expression provide insight into their interaction in the embryonic mouse palate. *Teratology.* 45(1):35-53.
- Abbott, B.D., L.S. Birnbaum and G.H. Perdew. 1995. Developmental expression of two members of a new class of transcription factors: I. Expression of aryl hydrocarbon receptor in the C57BL/6N mouse embryo. *Dev. Dyn.* 204(2):133-143.
- Abbott, B.D., L.S. Birnbaum and J.J. Diliberto. 1996. Rapid distribution of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) to embryonic tissues in C57BL/6N mice and correlation with palatal uptake in vitro. *Toxicol. Appl. Pharmacol.* 141(1):256-263.
- Abbott, B.D., G.A. Held, C.R. Wood, A.R. Buckalew, J.G. Brown and J. Schmid. 1999a. AhR, ARNT, and CYP1A1 mRNA quantitation in cultured human embryonic palates exposed to TCDD and comparison with mouse palate in vivo and in culture. *Toxicol. Sci.* 47(1):62-75.
- Abbott, B.D., J.E. Schmid, J.A. Pitt, A.R. Buckalew, C.R. Wood, G.A. Held and J.J. Diliberto. 1999b. Adverse reproductive outcomes in the transgenic Ah receptor-deficient mouse. *Toxicol. Appl. Pharmacol.* 155(1):62-70.
- Abbott, B.D., A.R. Buckalew, M.J. DeVito, D. Ross, P.L. Bryant and J.E. Schmid. 2003. EGF and TGF-alpha expression influence the developmental toxicity of TCDD: dose response and AhR phenotype in EGF, TGF-alpha, and EGF + TGF-alpha knockout mice. *Toxicol. Sci.* 71(1):84-95.
- Abernethy, D.J., W.F. Greenlee, J.C. Huband and C.J. Boreiko. 1985. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) promotes the transformation of C3H/10T1/2 cells. *Carcinogenesis.* 6(4):651-653.
- Abraham, K., R. Krowke and D. Neubert. 1988. Pharmacokinetics and biological activity of 2,3,7,8-tetrachlorodibenzo-p-dioxin. 1. Dose-dependent tissue distribution and induction of hepatic ethoxyresorufin O-deethylase in rats following a single injection. *Arch. Toxicol.* 62(5):359-368.
- Abraham, K., R. Krowke and D. Neubert. 1989a. Absorption of TCDD following parenteral application in rats using various vehicles. *Chemosphere.* 19(1-6):893-898.
- Abraham, K., T. Wiesmuller, H. Brunner, R. Krowke, H. Hagenmaier and D. Neubert. 1989b. Absorption and tissue distribution of various polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDDs and PCDFs) in the rat. *Arch. Toxicol.* 63(3):193-202.

Abraham, K., T. Wiesmuller, H. Brunner, R. Krowke, H. Hagenmaier and D. Neubert. 1989c. Elimination of various polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDDs and PCDFs) in rat faeces. *Arch. Toxicol.* 63(1):75-78.

Abraham, K., U. Weberrub, T. Wiesmuller, H. Hagenmaier, R. Krowke and D. Neubert. 1989d. Comparative studies on absorption and distribution in the liver and adipose tissue of PCDDs and PCDFs in rats and marmoset monkeys. *Chemosphere.* 19(1-6):887-892.

Abraham, K., T. Wiesmuller, H. Hagenmaier and D. Neubert. 1990. Distribution of PCDDs and PCDFs in various tissues of marmoset monkeys. *Chemosphere.* 20(7-9):1071-1078.

Abraham, K., O. Papke, M. Ball, A. Lis and H. Helge. 1994. Concentrations of PCDDs, PCDFs and coplanar PCBs in blood fat of a breast-fed and a formula-fed infant. *Organohalogen Comp.* 21:163-165.

Abraham, K., O. Papke, M. Ball, A. Lis and H. Helge. 1995. Changes in blood lipid concentration of PCDDs, PCDFs, and coplanar PCBs in a breast-fed and a formula-fed infant in the second year of life. *Organohalogen Comp.* 26:223-225.

Abraham, K., A. Knoll, M. Ende, O. Papke and H. Helge. 1996. Intake, fecal excretion, and body burden of polychlorinated dibenzo-p-dioxins and dibenzofurans in breast-fed and formula-fed infants. *Pediatr. Res.* 40(5):671-679.

Abraham, K., O. Papke, A. Gross, O. Kordonouri, S. Wiegand, U. Wahn and H. Helge. 1998. Time course of PCDD/PCDF/PCB concentrations in breast-feeding mothers and their infants. *Chemosphere.* 37(9-12):1731-1741.

Abraham, K., O. Papke, U. Wahn and H. Helge. 2000. POP accumulation in infants during breast-feeding. *Organohalogen Comp.* 48:25-26.

Ackermann, M.F., T.A. Gasiewicz, K.R. Lamm, D.R. Germolec and M.I. Luster. 1989. Selective inhibition of polymorphonuclear neutrophil activity by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 101(3):470-480.

Ademola, J.I., R.C. Wester and H.I. Maibach. 1993. Absorption and metabolism of 2-chloro-2,6-diethyl-N-(butoxymethyl)acetanilide (butachlor) in human skin in vitro. *Toxicol. Appl. Pharmacol.* 121(1):78-86.

Agrawal, A.K., H.A. Tilson and S.C. Bondy. 1981. 3,4,3',4'-Tetrachlorobiphenyl given to mice prenatally produces long-term decreases in striatal dopamine and receptor binding sites in the caudate nucleus. *Toxicol. Lett.* 7(6):417-424.

- Ahlborg, U.G., A. Brouwer, M.A. Fingerhut, J.L. Jacobson, S.W. Jacobson, S.W. Kennedy, A.A. Kettrup, J.H. Koeman, H. Poiger and C. Rappe. 1992. Impact of polychlorinated dibenzo-p-dioxins, dibenzofurans, and biphenyls on human and environmental health, with special emphasis on application of the toxic equivalency factor concept. *Eur. J. Pharmacol.* 228(4):179-199.
- Ahlborg, U.G., G.C. Becking, L. Birnbaum, A. Brouwer, H.J.G.M. Derks, M. Feeley, G. Golor, A. Hanberg, J.G. Larsen, A.K.D. Liem, C. Schlatter, F. Waern, M. Younes and E. Yrjanheikki. 1994. Toxic equivalency factors for dioxin like PCBs: report on a WHO-ECEH and IPCS consultation, Dec. 1993. *Chemosphere.* 28(6):1049-1067.
- Ahlborg, U.G., L. Lipworth, L. Titus-Ernstoff, C.C. Hsieh, A. Hanberg, J. Baron, D. Trichopoulos and H.O. Adami. 1995. Organochlorine compounds in relation to breast cancer, endometrial cancer, and endometriosis: an assessment of the biological and epidemiological evidence. *Crit Rev. Toxicol.* 25(6):463-531.
- Ahlborg, V.G., G.C. Becking, L.S. Birnbaum et al. 1994. Toxic equivalency factors for dioxin-like PCBs. *Chemosphere.* 28(6):1049-1067.
- Air Force Health Study. 1995. An epidemiologic investigation of health effects in Air Force personnel following exposure to herbicides. 1992 follow up examination results. Epidemiologic Research Division, Armstrong Laboratory, Brooks AFB, TX. AI-TR-920107.
- Air Force Health Study. 2000. An epidemiologic investigation of health effects in Air Force personnel following exposure to herbicides. 1997 follow up examination results. Human System Program Office, Armstrong, Laboratory, Brook Air Force Base, TX. AFRL0HE-BR-TR-2000-02.
- Aitio, A., M.G. Parkki and J. Marniemi. 1979. Different effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin on glucuronide conjugation of various aglycones. Studies in Wistar and Gunn rats. *Toxicol. Appl. Pharmacol.* 47(1):55-60.
- Akhtar, F.Z., D.H. Garabrant, N.S. Ketchum and J.E. Michalek. 2004. Cancer in US Air Force veterans of the Vietnam War. *J. Occup. Environ. Med.* 46(2):123-136.
- Alaluusua, S., P.-L. Lukinmaa, T. Vartiainen, M. Partanen, J. Torppa and J. Tuomisto. 1996. Polychlorinated dibenzo-p-dioxins and dibenzofurans via mother's milk may cause developmental defects in the child's teeth. *Environ. Toxicol. Pharmacol.* 1(3):193-197.
- Alaluusua, S., P.-L. Lukinmaa, J. Torppa, J. Tuomisto and T. Vartiainen. 1999. Developing teeth as biomarker of dioxin exposure. *Lancet.* 353(9148):206.
- Albro, P.W., J.T. Corbett, M. Harris and L.D. Lawson. 1978. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on lipid profiles in tissue of the Fischer rat. *Chem. Biol. Interact.* 23(3):315-330.

- Alderfer, R., M. Sweeney, M.A. Fingerhut, M.W. Hornung, K. Wille and A. Fidler. 1992. Measures of depressed mood in workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Chemosphere*. 25(1-2):247-250.
- Allen, B.C., R.J. Kavlock, C.A. Kimmel and E.M. Faustman. 1994a. Dose-response assessment for developmental toxicity. II. Comparison of generic benchmark dose estimates with no observed adverse effect levels. *Fundam. Appl. Toxicol.* 23(4):487-495.
- Allen, B.C., R.J. Kavlock, C.A. Kimmel and E.M. Faustman. 1994b. Dose-response assessment for developmental toxicity. III. Statistical models. *Fundam. Appl. Toxicol.* 23(4):496-509.
- Allen, J.R. and L.A. Carstens. 1967. Light and electron microscopic observations in *Macaca mulatta* monkeys fed toxic fat. *Am. J. Vet. Res.* 28(126):1513-1526.
- Allen, J.R. and J.J. Lalich. 1962. Response of chickens to prolonged feeding of crude "toxic fat". *Proc. Soc. Exp. Biol. Med.* 109:48-51.
- Allen, J.R., J.P. Van Miller and D.H. Norback. 1975. Tissue distribution, excretion and biological effects of [<sup>14</sup>C]tetrachlorodibenzo-p-dioxin in rats. *Food Cosmet. Toxicol.* 13(5):501-505.
- Allen, J.R., D.A. Barsotti, J.P. Van Miller, L.J. Abrahamson and J.J. Lalich. 1977. Morphological changes in monkeys consuming a diet containing low levels of 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Food Cosmet. Toxicol.* 15(5):401-410.
- Allen, J.R., D.A. Barsotti, L.K. Lambrecht and J.P. Van Miller. 1979. Reproductive effects of halogenated aromatic hydrocarbons on nonhuman primates. *Ann. N. Y. Acad. Sci.* 320:419-425.
- Allred, P.M. and J.R. Strange. 1977. The effects of 2,4,5-trichlorophenoxyacetic acid and 2,3,7,8-tetrachlorodibenzo-p-dioxin on developing chicken embryos. *Arch. Environ. Contam. Toxicol.* 6(4):483-489.
- Alsharif, N.Z., C.J. Grandjean, W.J. Murray and S.J. Stohs. 1990. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)-induced decrease in the fluidity of rat liver membranes. *Xenobiotica*. 20(9):979-988.
- Alsharif, N.Z., E. Hassoun, M. Bagchi, T. Lawson and S.J. Stohs. 1994a. The effects of anti-TNF-alpha antibody and dexamethasone on TCDD-induced oxidative stress in mice. *Pharmacology*. 48(2):127-136.
- Alsharif, N.Z., T. Lawson and S.J. Stohs. 1994b. Oxidative stress induced by 2,3,7,8-tetrachlorodibenzo-p-dioxin is mediated by the aryl hydrocarbon (Ah) receptor complex. *Toxicology*. 92(1-3):39-51.

- Alsharif, N.Z., W.J. Schlueter and S.J. Stohs. 1994c. Stimulation of NADPH-dependent reactive oxygen species formation and DNA damage by 2,3,7,8-tetrachlorodibenzo-p-dioxin in rat peritoneal lavage cells. *Arch. Environ. Contam. Toxicol.* 26(3):392-397.
- Altmann, L., A. Weinand-Haerer, H. Lilienthal and H. Wiegand. 1995. Maternal exposure to polychlorinated biphenyls inhibits long-term potentiation in the visual cortex of adult rats. *Neurosci. Lett.* 202(1-2):53-56.
- Altmann, L., H. Lilienthal, J. Hany and H. Wiegand. 1998. Inhibition of long-term potentiation in developing rat visual cortex but not hippocampus by in utero exposure to polychlorinated biphenyls. *Dev. Brain Res.* 110(2):257-260.
- Amann, R.P. 1982. Use of animal models for detecting specific alterations in reproduction. *Fundam. Appl. Toxicol.* 2(1):13-26.
- Amann, R.P. 1986. Detection of alterations in testicular and epididymal function in laboratory animals. *Environ. Health Perspect.* 70:149-158.
- Ambrosone, C.B., J.L. Freudenheim, S. Graham, J.R. Marshall, J.E. Vena, J.R. Brasure, R. Laughlin, T. Nemoto, A.M. Michalek and A. Harrington. 1995. Cytochrome P4501A1 and glutathione S-transferase (M1) genetic polymorphisms and postmenopausal breast cancer risk. *Cancer Res.* 55(16):3483-3485.
- American Thoracic Society. 1962. Chronic bronchitis, asthma, and pulmonary emphysema: a statement by the Committee on Diagnostic Standard for Nontuberculous Respiratory Diseases. *Am. Rev. Respir. Dis.* 85:762-768.
- Andersen, M.E., J.J. Mills, L.S. Birnbaum and R.B. Conolly. 1993a. Stochastic dose-response modeling of hepatic promotion by dioxin. *Toxicologist.* 13(1):196.
- Andersen, M.E., J.J. Mills, M.L. Gargas, L. Kedderis, L.S. Birnbaum, D. Neubert and W.G. Greenlee. 1993b. Modeling receptor-mediated processes with dioxin: Implications for pharmacokinetics and risk assessment. *Risk Anal.* 13(1):25-36.
- Andersen, M.E., J.J. Mills, T.R. Fox, T.L. Goldsworthy, R.B. Conolly and L.S. Birnbaum. 1994. Receptor-mediated toxicity and implications for risk assessment. In: *Receptor-Mediated Biological Processes. Implications for Evaluating Carcinogenesis*, H.L. Spitzer, T.J. Slaga, W.F. Greenlee and M. McClain, Eds. Wiley-Liss, New York, NY. pp. 295-310.
- Andersen, M.E., C.R. Eklund, J.J. Mills, H.A. Barton and L.S. Birnbaum. 1997a. A multi-compartment geometric model of liver in relation to regional induction of cytochrome P450s. *Toxicol. Appl. Pharmacol.* 144(1):135-144.

- Andersen, M.E., L.S. Birnbaum, H.A. Barton and C.R. Eklund. 1997b. Regional hepatic CYP1A1 and CYP1A2 induction with 2,3,7,8-tetrachlorodibenzo-p-dioxin evaluated with a multicompartement geometric model of hepatic zonation. *Toxicol. Appl. Pharmacol.* 144(1):145-155.
- Andersen, M.E., M.L. Gargas, S.M. Hays et al. 1997c. Estimating minimally effective inducing doses (ED01s) of TCDD in livers of rats and humans using physiologically based pharmacokinetic modeling. *Organohalogen Comp.* 34:311-316.
- Anderson, Y.B., J.A. Jackson and L.S. Birnbaum. 1993d. Maturational changes in dermal absorption of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in Fischer 344 rats. *Toxicol. Appl. Pharmacol.* 119(2):214-220.
- Antonsson, C., M.L. Whitelaw, J. McGuire, J.A. Gustafsson and L. Poellinger. 1995. Distinct roles of the molecular chaperone hsp90 in modulating dioxin receptor function via the basic helix-loop-helix and PAS domains. *Mol. Cell Biol.* 15(2):756-765.
- Appelgren, L.E., I. Brandt, E.B. Brittebo and J.A. Gustafsson. 1983. Autoradiography of 2,3,7,8-tetrachloro-<sup>14</sup>Cl-dibenzo-p-dioxin TCDD: accumulation in the nasal mucosa. *Chemosphere.* 12(4/5):545-548.
- Arcos, J.C., A.H. Conney and N.P. Buu-Hoi. 1961. Induction of microsomal enzyme synthesis by polycyclic aromatic hydrocarbons of different molecular sizes. *J. Biol. Chem.* 236:1291-1296.
- Ariens, E.J., J. van Rossum and P.C. Koopman. 1960. Receptor reserve and threshold phenomena. I. Theory and experiments with autonomic drugs tested on isolated organs. *Arch. Int. Pharmacodyn. Ther.* 127:459-478.
- Arnold, D.L., E.A. Nera, R. Stapley, G. Tolnai, P. Claman, S. Hayward, H. Tryphonas and F. Bryce. 1996. Prevalence of endometriosis in rhesus (*Macaca mulatta*) monkeys ingesting PCB (Aroclor 1254): review and evaluation. *Fundam. Appl. Toxicol.* 31(1):42-55.
- Aschengrau, A. and R.R. Monson. 1989. Paternal military service in Vietnam and risk of spontaneous abortion. *J. Occup. Med.* 31(7):618-623.
- Aschengrau, A. and R.R. Monson. 1990. Paternal military service in Vietnam and the risk of late adverse pregnancy outcomes. *Am. J. Public Health.* 80(10):1218-1224.
- Ashe, W.F. and R.R. Suskind. 1950. Reports on chloracne cases, Monsanto Chemical Co. Nitro, West Virginia, October 1949 and April 1950. Department of Environmental Health, College of Medicine, University of Cincinnati, Cincinnati, OH.
- Ashida, H., E. Enan and F. Matsumura. 1996. Protective action of dehydroascorbic acid on the Ah receptor-dependent and receptor-independent induction of lipid peroxidation in adipose tissue of male guinea pig caused by TCDD administration. *J. Biochem. Toxicol.* 11(6):269-278.

Ashida, H., I. Fukuda, T. Yamashita and K. Kanazawa. 2000a. Flavones and flavonols at dietary levels inhibit a transformation of aryl hydrocarbon receptor induced by dioxin. *FEBS Lett.* 476(3):213-217.

Ashida, H., S. Nagy and F. Matsumura. 2000b. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)-induced changes in activities of nuclear protein kinases and phosphatases affecting DNA binding activity of c-Myc and AP-1 in the livers of guinea pigs. *Biochem. Pharmacol.* 59(7):741-751.

Asp, S., V. Riihimaki, S. Hernberg and E. Pukkala. 1994. Mortality and cancer morbidity of Finnish chlorophenoxy herbicide applicators: an 18-year prospective follow-up. *Am. J. Ind. Med.* 26(2):243-253.

Assennato, G., D. Cervino, E.A. Emmett, G. Longo and F. Merlo. 1989. Follow-up of subjects who developed chloracne following TCDD exposure at Seveso. *Am. J. Ind. Med.* 16(2):119-125.

Astroff, B. and S. Safe. 1990. 2,3,7,8-Tetrachlorodibenzo-p-dioxin as an antiestrogen: effect on rat uterine peroxidase activity. *Biochem. Pharmacol.* 39(3):485-488.

Astroff, B., C. Rowlands, R. Dickerson and S. Safe. 1990. 2,3,7,8-Tetrachlorodibenzo-p-dioxin inhibition of 17 beta-estradiol-induced increases in rat uterine epidermal growth factor receptor binding activity and gene expression. *Mol. Cell Endocrinol.* 72(3):247-252.

Atlas, S.A., E.S. Vesell and D.W. Nebert. 1976. Genetic control of interindividual variations in the inducibility of aryl hydrocarbon hydroxylase in cultured human lymphocytes. *Cancer Res.* 36(12):4619-4630.

ATSDR (Agency for Toxic Substances and Disease Registry). 1998. Toxicological profile for chlorinated dibenzo-p-dioxins. United States Department of Health and Human Services, Public Health Service, Atlanta, GA.

ATSDR (Agency for Toxic Substances and Disease Registry). 1999. Health consultation (exposure investigation) Calcasieu Estuary (aka Mossville) Lake Charles, Calcasieu Parish, LA. Prepared by Exposure Investigation and Consultation Branch, Division of Health Assessment and Consultation. Cerclis No. LA0002368173.

Aubert, M.L., M. Begeot, B.P. Winiger, G. Morel, P.C. Sizonenko and P.M. Dubois. 1985. Ontogeny of hypothalamic luteinizing hormone-releasing hormone (GnRH) and pituitary GnRH receptors in fetal and neonatal rats. *Endocrinology.* 116(4):1565-1576.

Axelson, O. and K. Steenland. 1988. Indirect methods of assessing the effects of tobacco use in occupational studies. *Am. J. Ind. Med.* 13(1):105-118.



- Axelsson, O. and L. Sundell. 1974. Herbicide exposure, mortality and tumor incidence. An epidemiological investigation on Swedish railroad workers. *Work Environ. Health.* 11(1):21-28.
- Aylward, L.L. and S.M. Hays. 2002. Temporal trends in human TCDD body burden: decreases over three decades and implications for exposure levels. *J. Expo. Anal. Environ. Epidemiol.* 12(5):319-328.
- Aylward, L.L., S.M. Hays, N.J. Karch and D.J. Paustenbach. 1996. Relative susceptibility of animals and humans to the cancer hazard posed by exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) using internal measures of dose. *Environ. Sci. Technol.* 30:3534-3543.
- Aylward, L., S. Hayes, R. Brunet et al. 2003. Impact of a concentration-dependent elimination rate for TCDD on dose estimates for the NIOSH cohort. *Organohalogen Comp.* 64:128-131.
- Aylward, L.L., J.C. Lamb and S.C. Lewis. 2005a. Issues in risk assessment for developmental effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin and related compounds. *Toxicol. Sci.* 87(1):3-10.
- Aylward, L.L., R.C. Brunet, G. Carrier, S.M. Hays, C.A. Cushing, L.L. Needham, D.G. Patterson, Jr., P.M. Gerthoux, P. Brambilla and P. Mocarelli. 2005b. Concentration-dependent TCDD elimination kinetics in humans: toxicokinetic modeling for moderately to highly exposed adults from Seveso, Italy, and Vienna, Austria, and impact on dose estimates for the NIOSH cohort. *J. Expo. Anal. Environ. Epidemiol.* 15:51-65.
- Aylward, L.L., R.C. Brunet, T.B. Starr, G. Carrier, E. Delzell, H. Cheng and C. Beall. 2005c. Exposure reconstruction for the TCDD-exposed NIOSH cohort using a concentration- and age-dependent model of elimination. *Risk Anal.* 25(4):945-956.
- Aylward, L.L., H. Cheng, C. Beall, T. Starr, R. Brunet, G. Carrier and E. Delzell. 2007. Estimating past dioxin exposure: Response to Steenland and Bartell. *Risk Anal.* 27(1):9-10.
- Baader, E.W. and H.J. Bauer. 1951. Industrial intoxication due to pentachlorophenol. *Ind. Med. Surg.* 20(6):286-290.
- Baccarelli, A., P. Mocarelli, D.G. Patterson, Jr., M. Bonzini, A.C. Pesatori, N. Caporaso and M.T. Landi. 2002. Immunologic effects of dioxin: new results from Seveso and comparison with other studies. *Environ. Health Perspect.* 110(12):1169-1173.
- Bachmann, K., D. Pardoe and D. White. 1996. Scaling basic toxicokinetic parameters from rat to man. *Environ. Health Perspect.* 104(4):400-407.

- Bagchi, D., M.A. Shara, M. Bagchi, E.A. Hassoun and S.J. Stohs. 1993. Time-dependent effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on serum and urine levels of malondialdehyde, formaldehyde, acetaldehyde, and acetone in rats. *Toxicol. Appl. Pharmacol.* 123(1):83-88.
- Bager, Y., H. Hemming, S. Flodstrom, U.G. Ahlborg and L. Warngard. 1995. Interaction of 3,4,5,3',4'-pentachlorobiphenyl and 2,4,5,2',4',5'-hexachlorobiphenyl in promotion of altered hepatic foci in rats. *Pharmacol. Toxicol.* 77(2):149-154.
- Bank, P.A., E.F. Yao, C.L. Phelps, P.A. Harper and M.S. Denison. 1992. Species-specific binding of transformed Ah receptor to a dioxin responsive transcriptional enhancer. *Eur. J. Pharmacol.* 228(2-3):85-94.
- Banks, Y.B. and L.S. Birnbaum. 1991a. Absorption of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) after low dose dermal exposure. *Toxicol. Appl. Pharmacol.* 107(2):302-310.
- Banks, Y.B. and L.S. Birnbaum. 1991b. Kinetics of 2,3,7,8-tetrachlorodibenzofuran (TCDF) absorption after low dose dermal exposure. *Toxicologist.* 11:270.
- Banks, Y.B., D.W. Brewster and L.S. Birnbaum. 1990. Age-related changes in dermal absorption of 2,3,7, 8-tetrachlorodibenzo-p-dioxin and 2,3,4,7,8-pentachlorodibenzofuran. *Fundam. Appl. Toxicol.* 15(1):163-173.
- Bardin, C.W., C.Y. Cheng, N.A. Musto and G.L. Gunsalus. 1988. The Sertoli cell. In: *The Physiology of Reproduction*, E. Knobil, J.D. Neil, L.L. Ewing, G.S. Greenwald, C.L. Markert and D.W. Pfaff, Eds. Raven Press, New York, NY. pp. 933-974.
- Barnes, D., A. Ford-Stevens, L. Birnbaum, F.W. Kutz, W. Wood and D. Patton. 1991. Toxicity equivalency factors for PCBs? *Qual. Assur.* 1(1):70-81.
- Barraclough, C.A. 1980. Sex differentiation of cyclic gonadotropin secretion. In: *Advances in the Biosciences*, 25, A.M. Kaye and M. Kaye, Eds. Pergamon Press, New York, NY. pp. 433-450.
- Barrett, J.C. 1992. Multistage Carcinogenesis, H. Vanio, P.N. Magee, D.B. McGregor and A.J. McMichael, Eds. International Agency for Research on Cancer, World Health Organization, Lyon, France.
- Barrett, J.C. and R.W. Wiseman. 1987. Cellular and molecular mechanisms of multistep carcinogenesis: relevance to carcinogen risk assessment. *Environ. Health Perspect.* 76:65-70.
- Bars, R.G. and C.R. Elcombe. 1991. Dose-dependent acinar induction of cytochromes P450 in rat liver. Evidence for a differential mechanism of induction of P450IA1 by beta-naphthoflavone and dioxin. *Biochem. J.* 277(Pt. 2):577-580.

Barsotti, D.A., L.J. Abrahamson and J.R. Allen. 1979. Hormonal alterations in female rhesus monkeys fed a diet containing 2, 3,7,8-tetrachlorodibenzo-p-dioxin. *Bull. Environ. Contam Toxicol.* 21(4-5):463-469.

Barter, R.A. and C.D. Klaassen. 1992. UDP-glucuronosyltransferase inducers reduce thyroid hormone levels in rats by an extrathyroidal mechanism. *Toxicol. Appl. Pharmacol.* 113(1):36-42.

Barthel, E. 1981. Increased risk of lung cancer in pesticide-exposed male agricultural workers. *J. Toxicol. Environ. Health.* 8(5-6):1027-1040.

Barton, H.A. and S. Das. 1996. Alternatives for a risk assessment on chronic noncancer effects from oral exposure to trichloroethylene. *Regul. Toxicol. Pharmacol.* 24(3):269-285.

Bastomsky, C.H. 1977. Enhanced thyroxine metabolism and high uptake goiters in rats after a single dose of 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Endocrinology.* 101(1):292-296.

Bauer, H., K. Schulz and W. Spiegleburg. 1961. Industrial poisoning in the manufacture of chlorophenol compounds. *Arch. Gewerbepathol. Gewerbehyg.* 18:538-555.

Baughman, R.W. 1974. Tetrachlorodibenzo-p-dioxins in the environment. High resolution mass spectrometry at the picogram level. Harvard University, Department of Chemistry, Cambridge, MA. NTIS PB75-22939.

Beatty, P. and R.A. Neal. 1977. Factors affecting the induction of DT-diaphorase by 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on mammalian cells in tissue cultures. *Biochem. Pharmacol.* 27(4):505.

Beatty, P.W., K.J. Lembach, M.A. Holscher and R.A. Neal. 1975. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on mammalian cells in tissue cultures. *Toxicol. Appl. Pharmacol.* 31(2):309-312.

Beatty, P.W., W.K. Vaughn and R.A. Neal. 1978. Effect of alteration of rat hepatic mixed-function oxidase (MFO) activity on the toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Toxicol. Appl. Pharmacol.* 45(2):513-519.

Becher, H., D. Flesch-Janys, T. Kauppinen, M. Kogevinas, K. Steindorf, A. Manz and J. Wahrendorf. 1996. Cancer mortality in German male workers exposed to phenoxy herbicides and dioxins. *Cancer Cause Control.* 7(3):312-321.

Becher, H., K. Steindorf and D. Flesch-Janys. 1998. Quantitative cancer risk assessment for dioxins using an occupational cohort. *Environ. Health Perspect.* 106 Suppl 2:663-670.

- Beck, H., K. Eckart, W. Mathar et al. 1987. Isomerenspezifische Bestimmung von PCDD und PCDF in Human- und Lebensmittelproben. VDI Berichte. 634:359-382.
- Beck, H., K. Eckart, W. Mathar and R. Wittkowski. 1989. Levels of PCDDs and PCDFs in adipose tissue of occupationally exposed workers. Chemosphere. 18(1-6):507-516.
- Becklake, M.R. 1985. Chronic airflow limitation: its relationship to work in dusty occupations. Chest. 88(4):608-617.
- Beebe, L., S.S. Park and L.M. Anderson. 1990. Differential enzyme induction of mouse liver and lung following a single low or high dose of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). J. Biochem. Toxicol. 5(4):211-219.
- Beebe, L.E., L.W. Fornwald, B.A. Diwan, M.R. Anver and L.M. Anderson. 1995a. Promotion of N-nitrosodiethylamine-initiated hepatocellular tumors and hepatoblastomas by 2,3,7,8-tetrachlorodibenzo-p-dioxin or Aroclor 1254 in C57BL/6, DBA/2, and B6D2F1 mice. Cancer Res. 55(21):4875-4880.
- Beebe, L.E., M.R. Anver, C.W. Riggs, L.W. Fornwald and L.M. Anderson. 1995b. Promotion of N-nitrosodimethylamine-initiated mouse lung tumors following single or multiple low dose exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. Carcinogenesis. 16(6):1345-1349.
- Beg, A.A. and D. Baltimore. 1996. An essential role for NF-kappaB in preventing TNF-alpha-induced cell death. Science. 274(5288):782-784.
- Beguinot, L., J.A. Hanover, S. Ito, N.D. Richert, M.C. Willingham and I. Pastan. 1985. Phorbol esters induce transient internalization without degradation of unoccupied epidermal growth factor receptors. Proc. Natl. Acad. Sci. U. S. A. 82(9):2774-2778.
- Bell, D.R. and A. Poland. 2000. Binding of aryl hydrocarbon receptor (AhR) to AhR-interacting protein. The role of hsp90. J. Biol. Chem. 275(46):36407-36414.
- Benedict, J.C., T.M. Lin, I.K. Loeffler, R.E. Peterson and J.A. Flaws. 2000. Physiological role of the aryl hydrocarbon receptor in mouse ovary development. Toxicol. Sci. 56(2):382-388.
- Benjamini, E. and S. Leskowitz. 1991. Immunology: a short course. In: Nature and Physiology of Natural Effector Cells, 2nd ed. Wiley-Liss, New York, NY. -26 pp.
- Berghard, A., K. Gradin and R. Toftgard. 1992. The stability of dioxin-receptor ligands influences cytochrome P450IA1 expression in human keratinocytes. Carcinogenesis. 13(4):651-655.

- Berghard, A., K. Gradin, I. Pongratz, M. Whitelaw and L. Poellinger. 1993. Cross-coupling of signal transduction pathways: the dioxin receptor mediates induction of cytochrome P-450IA1 expression via a protein kinase C-dependent mechanism. *Mol. Cell Biol.* 13(1):677-689.
- Bergman, A., I. Brandt and B. Jansson. 1979. Accumulation of methylsulfonyl derivatives of some bronchial-seeking polychlorinated biphenyls in the respiratory tract of mice. *Toxicol. Appl. Pharmacol.* 48(2):213-220.
- Bertazzi, P.A. and A. di Domenico. 1994. Chemical, environmental, and health aspects of the Seveso, Italy, accident. In: *Dioxins and Health*, A. Schechter, Ed. Plenum Press, New York, NY. pp. 587-632.
- Bertazzi, P.A., C. Zocchetti, A.C. Pesatori, S. Guercilena, M. Sanarico and L. Radice. 1989a. Ten-year mortality study of the population involved in the Seveso incident in 1976. *Am. J. Epidemiol.* 129(6):1187-1200.
- Bertazzi, P.A., C. Zocchetti, A.C. Pesatori, S. Guercilena, M. Sanarico and L. Radice. 1989b. Mortality in an area contaminated by TCDD following an industrial incident. *Med. Lav.* 80(4):316-329.
- Bertazzi, P.A., C. Zocchetti, A.C. Pesatori, S. Guercilena, D. Consonni, A. Tironi and M.T. Landi. 1992. Mortality of a young population after accidental exposure to 2,3,7,8-tetrachlorodibenzodioxin. *Int. J. Epidemiol.* 21(1):118-123.
- Bertazzi, A., A.C. Pesatori, D. Consonni, A. Tironi, M.T. Landi and C. Zocchetti. 1993a. Cancer incidence in a population accidentally exposed to 2,3,7,8-tetrachlorodibenzo-para-dioxin. *Epidemiology.* 4(5):398-406.
- Bertazzi, P.A., A.C. Pesatori, D. Consonni, A. Tironi, M.T. Landi and C. Zocchetti. 1993b. Cancer incidence in a population accidentally exposed to 2,3,7,8-tetrachlorodibenzo-para-dioxin. *Epidemiology.* 4(5):398-406.
- Bertazzi, P.A., C. Zocchetti, S. Guercilena, D. Consonni, A. Tironi, M.T. Landi and A.C. Pesatori. 1997. Dioxin exposure and cancer risk: a 15-year mortality study after the "Seveso accident". *Epidemiology.* 8(6):646-652.
- Bertazzi, P.A., I. Bernucci, G. Brambilla, D. Consonni and A.C. Pesatori. 1998. The Seveso studies on early and long-term effects of dioxin exposure: a review. *Environ. Health Perspect.* 106 Suppl 2:625-633.
- Bertazzi, P.A., A.C. Pesatori, D. Consonni and C. Zocchetti. 1999. Epidemiology of long-term health effects of dioxin exposure in the Seveso population. *Organohalogen Comp.* 44:337-338.
- Bertazzi, P.A., D. Consonni, S. Bachetti, M. Rubagotti, A. Baccarelli, C. Zocchetti and A.C. Pesatori. 2001a. Health effects of dioxin exposure: a 20-year mortality study. *Am. J. Epidemiol.* 153(11):1031-1044.

- Bertazzi, P.A., D. Consonni, S. Bachetti, M. Rubagotti, A. Baccarelli, C. Zocchetti and A.C. Pesatori. 2001b. Bertazzi et al. respond to Smith and Lopipero. *Am. J. Epidemiol.* 153(11):1048-1049.
- Bhattacharyya, K.K., P.B. Brake, S.E. Eltom, S.A. Otto and C.R. Jefcoate. 1995. Identification of a rat adrenal cytochrome P450 active in polycyclic hydrocarbon metabolism as rat CYP1B1. Demonstration of a unique tissue-specific pattern of hormonal and aryl hydrocarbon receptor-linked regulation. *J. Biol. Chem.* 270(19):11595-11602.
- Biegel, L. and S. Safe. 1990. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on cell growth and the secretion of the estrogen-induced 34-, 52- and 160-kDa proteins in human breast cancer cells. *J. Steroid Biochem. Mol. Biol.* 37(5):725-732.
- Biegel, L., M. Harris, D. Davis, R. Rosengren, L. Safe and S. Safe. 1989. 2,2',4,4',5,5'-hexachlorobiphenyl as a 2,3,7,8-tetrachlorodibenzo-p-dioxin antagonist in C57BL/6J mice. *Toxicol. Appl. Pharmacol.* 97(3):561-571.
- Binder, R.L. and J.J. Lech. 1984. Xenobiotics in gametes of Lake Michigan lake trout *Salvelinus namaycush* induce hepatic monooxygenase activity in their offspring. *Fundam. Appl. Toxicol.* 4(6):1042-1054.
- Binder, R.L. and J.J. Stegeman. 1983. Basal levels and induction of hepatic aryl hydrocarbon hydroxylase activity during the embryonic period of development in brook trout. *Biochem. Pharmacol.* 32(7):1324-1327.
- Birnbaum, L.S. 1983. Distribution and excretion of 2,3,6,2',3',6'- and 2,4,5,2',4',5'-hexachlorobiphenyl in senescent rats. *Toxicol. Appl. Pharmacol.* 70(2):262-272.
- Birnbaum, L.S. 1985. The role of structure in the disposition of halogenated aromatic xenobiotics. *Environ. Health Perspect.* 61:11-20.
- Birnbaum, L.S. 1986. Distribution and excretion of 2,3,7,8-tetrachlorodibenzo-p-dioxin in congenic strains of mice which differ at the Ah locus. *Drug Metab Dispos.* 14(1):34-40.
- Birnbaum, L. 1991. Developmental toxicity of TCDD and related compounds: species sensitivities and differences. Banbury Report 35: Biological Basis for Risk Assessment Dioxins and Related Compounds. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. pp. 51-67.
- Birnbaum, L.S. 1994a. Evidence for the role of the Ah receptor in response to dioxin. *Prog. Clin. Biol. Res.* 387:139-154.
- Birnbaum, L.S. 1994b. The mechanism of dioxin toxicity: relationship to risk assessment. *Environ. Health Perspect.* 102 Suppl 9:157-167.

- Birnbaum, L. 1998. Developmental effects of dioxin. In: Reproductive and Developmental Toxicology, 24, K.S. Korach, Ed. Marcel-Dekker, New York, NY. pp. 87-112.
- Birnbaum, L.S. 1999. TEFs: a practical approach to a real world problem. Human Ecol. Risk Assess. 5(1):13-24.
- Birnbaum, L.S. and L.A. Couture. 1988. Disposition of octachlorodibenzo-p-dioxin (OCDD) in male rats. Toxicol. Appl. Pharmacol. 93(1):22-30.
- Birnbaum, L.S. and A.M. Cummings. 2002. Dioxins and endometriosis: a plausible hypothesis. Environ. Health Perspect. 110(1):15-21.
- Birnbaum, L.S. and M.J. DeVito. 1995. Use of toxic equivalency factors for risk assessment for dioxins and related compounds. Toxicology. 105(2-3):391-401.
- Birnbaum, L.S., G.M. Decad and H.B. Matthews. 1980. Disposition and excretion of 2,3,7,8-tetrachlorodibenzofuran in the rat. Toxicol. Appl. Pharmacol. 55(2):342-352.
- Birnbaum, L.S., G.M. Decad, H.B. Matthews and E.E. McConnell. 1981. Fate of 2,3,7,8-tetrachlorodibenzofuran in the monkey. Toxicol. Appl. Pharmacol. 57(2):189-196.
- Birnbaum, L.S., H. Weber, M.W. Harris, J.C. Lamb and J.D. McKinney. 1985. Toxic interaction of specific polychlorinated biphenyls and 2,3,7,8-tetrachlorodibenzo-p-dioxin: increased incidence of cleft palate in mice. Toxicol. Appl. Pharmacol. 77(2):292-302.
- Birnbaum, L.S., M.W. Harris, C.P. Miller, R.M. Pratt and J.C. Lamb. 1986. Synergistic interaction of 2,3,7,8-tetrachlorodibenzo-p-dioxin and hydrocortisone in the induction of cleft palate in mice. Teratology. 33(1):29-35.
- Birnbaum, L.S., M.W. Harris, D.D. Crawford and R.E. Morrissey. 1987a. Teratogenic effects of polychlorinated dibenzofurans in combination in C57BL/6N mice. Toxicol. Appl. Pharmacol. 91(2):246-255.
- Birnbaum, L.S., M.W. Harris, E.R. Barnhart and R.E. Morrissey. 1987b. Teratogenicity of three polychlorinated dibenzofurans in C57BL/6N mice. Toxicol. Appl. Pharmacol. 90(2):206-216.
- Birnbaum, L.S., M.W. Harris, L.M. Stocking, A.M. Clark and R.E. Morrissey. 1989. Retinoic acid and 2,3,7,8-tetrachlorodibenzo-p-dioxin selectively enhance teratogenesis in C57BL/6N mice. Toxicol. Appl. Pharmacol. 98(3):487-500.
- Birnbaum, L.S., M.M. McDonald, P.C. Blair, A.M. Clark and M.W. Harris. 1990. Differential toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in C57BL/6J mice congenic at the Ah Locus. Fundam. Appl. Toxicol. 15(1):186-200.

- Birnbaum, L.S., R.E. Morrissey and M.W. Harris. 1991. Teratogenic effects of 2,3,7,8-tetrabromodibenzo-p-dioxin and three polybrominated dibenzofurans in C57BL/6N mice. *Toxicol. Appl. Pharmacol.* 107(1):141-152.
- Birnbaum, L.S., D.F. Staskal and J.J. Diliberto. 2003. Health effects of polybrominated dibenzo-p-dioxins (PBDDs) and dibenzofurans (PBDFs). *Environ. Int.* 29(6):855-860.
- Biscanti, L., F. Bonetti, F. Caramaschi et al. 1979. Experience of the accident of Seveso. In: 6th European Teratology Conference, Akademiai Kiado, Pub.
- Bjeldanes, L.F., J.Y. Kim, K.R. Grose, J.C. Bartholomew and C.A. Bradfield. 1991. Aromatic hydrocarbon responsiveness-receptor agonists generated from indole-3-carbinol in vitro and in vivo: comparisons with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Proc. Natl. Acad. Sci. U. S. A.* 88(21):9543-9547.
- Bjerke, D.L. and R.E. Peterson. 1994. Reproductive toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin in male rats: different effects of in utero versus lactational exposure. *Toxicol. Appl. Pharmacol.* 127(2):241-249.
- Bjerke, D.L., R.J. Sommer, R.W. Moore and R.E. Peterson. 1994a. Effects of in utero and lactational 2,3,7,8-tetrachlorodibenzo-p-dioxin exposure on responsiveness of the male rat reproductive system to testosterone stimulation in adulthood. *Toxicol. Appl. Pharmacol.* 127(2):250-257.
- Bjerke, D.L., T.J. Brown, N.J. MacLusky, R.B. Hochberg and R.E. Peterson. 1994b. Partial demasculinization and feminization of sex behavior in male rats by in utero and lactational exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin is not associated with alterations in estrogen receptor binding or volumes of sexually differentiated brain nuclei. *Toxicol. Appl. Pharmacol.* 127(2):258-267.
- Blagosklonny, M.V. 1997. Loss of function and p53 protein stabilization. *Oncogene.* 15(16):1889-1893.
- Blair, A., D.J. Grauman, J.H. Lubin and J.F. Fraumeni, Jr. 1983. Lung cancer and other causes of death among licensed pesticide applicators. *J. Natl. Cancer Inst.* 71(1):31-37.
- Blair, A., H. Malker, K.P. Cantor, L. Burmeister and K. Wiklund. 1985. Cancer among farmers. A review. *Scand. J. Work Environ. Health.* 11(6):397-407.
- Blankenship, A. and F. Matsumura. 1997. 2,3,7,8-Tetrachlorodibenzo-p-dioxin-induced activation of a protein tyrosine kinase, pp60src, in murine hepatic cytosol using a cell-free system. *Mol. Pharmacol.* 52(4):667-675.



- Blankenship, A.L., M.C. Suffia, F. Matsumura, K.J. Walsh and L.M. Wiley. 1993. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) accelerates differentiation of murine preimplantation embryos in vitro. *Reprod. Toxicol.* 7(3):255-261.
- Blazak, W.F., T.L. Ernst and B.E. Stewart. 1985. Potential indicators of reproductive toxicity: testicular sperm production and epididymal sperm number, transit time, and motility in Fischer 344 rats. *Fundam. Appl. Toxicol.* 5(6 Pt 1):1097-1103.
- Bleiberg, J., M. Wallen, R. Brodtkin and I.L. Applebaum. 1964. Industrially acquired porphyria. *Arch. Dermatol.* 89:793-797.
- Blume, A.J. 2008. NG108-15 opiate receptors: characterization as binding sites and regulators of adenylate cyclase. In: *Drug Receptors and Their Effectors*, N.J.M. Birdsall, Biological Council Co-ordinating Committee for Symposia on Drug Action and Biochemical Society (Great Britain), Eds. Macmillan, London. 182 pp.
- Bock, K.W. 1991. Roles of UDP-glucuronosyltransferases in chemical carcinogenesis. *Crit Rev. Biochem. Mol. Biol.* 26(2):129-150.
- Bock, K.W., H. Gschaidmeier, H. Heel, T. Lehmkoetter, P.A. Munzel, F. Raschko and B. Bock-Hennig. 1998. AH receptor-controlled transcriptional regulation and function of rat and human UDP-glucuronosyltransferase isoforms. *Adv. Enzyme Regul.* 38:207-222.
- Bodner, K.M., J.J. Collins, L.J. Bloemen and M.L. Carson. 2003. Cancer risk for chemical workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Occup. Environ. Med.* 60(9):672-675.
- Boeynaems, J.M. and J.E. Dumont. 1980. *Outlines of Receptor Theory*. Elsevier/North Holland Biomedical Press, Amsterdam.
- Bombick, D.W., F. Matsumura and B.V. Madhukar. 1984. TCDD (2,3,7,8-tetrachlorodibenzo-p-dioxin) causes reduction in the low density lipoprotein (LDL) receptor activities in the hepatic plasma membrane of the guinea pig and rat. *Biochem. Biophys. Res. Co.* 118(2):548-554.
- Bombick, D.W., B.V. Madhukar, D.W. Brewster and F. Matsumura. 1985. TCDD (2,3,7,8-tetrachlorodibenzo-p-dioxin) causes increases in protein kinases particularly protein kinase C in the hepatic plasma membrane of the rat and the guinea pig. *Biochem. Biophys. Res. Co.* 127(1):296-302.
- Bond, G.G., M.G. Ott, F.E. Brenner and R.R. Cook. 1983. Medical and morbidity surveillance findings among employees potentially exposed to TCDD. *Br. J. Ind. Med.* 40(3):318-324.
- Bond, G.G., R.R. Cook, F.E. Brenner and E.A. McLaren. 1987. Evaluation of mortality patterns among chemical workers with chloracne. *Chemosphere.* 16(8-9):2117-2121.

- Bond, G.G., N.H. Wetterstroem, G.J. Roush, E.A. McLaren, T.E. Lipps and R.R. Cook. 1988. Cause specific mortality among employees engaged in the manufacture, formulation, or packaging of 2,4-dichlorophenoxyacetic acid and related salts. *Br. J. Ind. Med.* 45(2):98-105.
- Bond, G.G., E.A. McLaren, F.E. Brenner and R.R. Cook. 1989a. Incidence of chloracne among chemical workers potentially exposed to chlorinated dioxins. *J. Occup. Med.* 31(9):771-774.
- Bond, G.G., K.M. Bodner and R.R. Cook. 1989b. Phenoxy herbicides and cancer: insufficient epidemiologic evidence for a causal relationship. *Fundam. Appl. Toxicol.* 12(1):172-188.
- Bookstaff, R.C., F. Kamel, R.W. Moore, D.L. Bjerke and R.E. Peterson. 1990a. Altered regulation of pituitary gonadotropin-releasing hormone (GnRH) receptor number and pituitary responsiveness to GnRH in 2,3,7,8-tetrachlorodibenzo-p-dioxin-treated male rats. *Toxicol. Appl. Pharmacol.* 105(1):78-92.
- Bookstaff, R.C., R.W. Moore and R.E. Peterson. 1990b. 2,3,7,8-tetrachlorodibenzo-p-dioxin increases the potency of androgens and estrogens as feedback inhibitors of luteinizing hormone secretion in male rats. *Toxicol. Appl. Pharmacol.* 104(2):212-224.
- Bowman, R.E., S. Schantz, M.L. Gross and S.A. Ferguson. 1989a. Behavioral effects in monkeys exposed to 2,3,7,8-TCDD transmitted maternally during gestation and for four months of nursing. *Chemosphere.* 18(1-6):235-242.
- Bowman, R.E., S. Schantz, N.C. Weerasinghe, M.L. Gross and D.A. Barsotti. 1989b. Chronic dietary intake of 2,3,7,8-tetrachlorobibenzo-*p*-dioxin (TCDD) at 5 or 25 parts per trillion in the monkey: TCDD kinetics and dose-effect estimate of reproductive toxicity. *Chemosphere.* 18(1-6):243-252.
- Bowman, R.E., H.Y. Tong, M.L. Gross, S.J. Monson and N.C. Weerasinghe. 1990. Controlled exposure of female rhesus monkeys to 2,3,7,8-TCDD: concentrations of TCDD in fat of offspring, and its decline over time. *Chemosphere.* 7-9(1199):1202.
- Boyd, J.A., G.C. Clark, D. Walmer, D. Patterson, L. Needham and G. Lucier. 1995. Endometriosis and the environment: biomarkers of toxin exposure. In: *Conference on Endometriosis 2000.* National Institutes of Health, Bethesda, MD.
- Bradfield, C.A. and L.F. Bjeldanes. 1984. Effect of dietary indole-3-carbinol on intestinal and hepatic monooxygenase, glutathione S-transferase and epoxide hydrolase activities in the rat. *Food Chem. Toxicol.* 22(12):977-982.
- Bradfield, C.A. and L.F. Bjeldanes. 1987. Structure-activity relationships of dietary indoles: a proposed mechanism of action as modifiers of xenobiotic metabolism. *J. Toxicol. Environ. Health.* 21(3):311-323.

- Bradlaw, J.A., L.H. Garthoff, N.E. Hurley and D. Firestone. 1980. Comparative induction of aryl hydrocarbon hydroxylase activity in vitro by analogues of dibenzo-p-dioxin. *Food Cosmet. Toxicol.* 18(6):627-635.
- Braley-Mullen, H. 1982. Differential effect of activated T amplifier cells on B cells responding to thymus-independent type 1 and type 2 antigens. *J. Immunol.* 129(2):484-489.
- Brandt, I., P.O. Darnerud, A. Bergman and Y. Larsson. 1982. Metabolism of 2,4,5-trichlorobiphenyl: enrichment of hydroxylated and methyl sulphone metabolites in the uterine luminal fluid of pregnant mice. *Chem. Biol. Interact.* 40(1):45-56.
- Breslin, P., H.K. Kang, Y. Lee, V. Burt and B.M. Shepard. 1988. Proportionate mortality study of US Army and US Marine Corps veterans of the Vietnam War. *J. Occup. Med.* 30(5):412-419.
- Breslow, N.E. and N.E. Day. 1987. Statistical methods in cancer research. Volume II--The design and analysis of cohort studies. *IARC Sci. Publ.*(82):1-406.
- Brewster, D.W. and L.S. Birnbaum. 1987. Disposition and excretion of 2,3,4,7,8-pentachlorodibenzofuran in the rat. *Toxicol. Appl. Pharmacol.* 90(2):243-252.
- Brewster, D.W. and L.S. Birnbaum. 1988. Disposition of 1,2,3,7,8-pentachlorodibenzofuran in the rat. *Toxicol. Appl. Pharmacol.* 95(3):490-498.
- Brewster, D.W. and F. Matsumura. 1984. TCDD (2,3,7,8-tetrachlorodibenzo-p-dioxin) reduces lipoprotein lipase activity in the adipose tissue of the guinea pig. *Biochem. Biophys. Res. Co.* 122(2):810-817.
- Brewster, D.W. and F. Matsumura. 1988. Reduction of adipose tissue lipoprotein lipase activity as a result of in vivo administration of 2,3,7,8-tetrachlorodibenzo-p-dioxin to the guinea pig. *Biochem. Pharmacol.* 37(11):2247-2253.
- Brewster, D.W., F. Matsumura and T. Akera. 1987. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on guinea pig heart muscle. *Toxicol. Appl. Pharmacol.* 89(3):408-417.
- Brewster, D.W., D.W. Bombick and F. Matsumura. 1988a. Rabbit serum hypertriglyceridemia after administration of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *J. Toxicol. Environ. Health.* 25(4):495-507.
- Brewster, D.W., M.R. Elwell and L.S. Birnbaum. 1988b. Toxicity and disposition of 2,3,4,7,8-pentachlorodibenzofuran (4PeCDF) in the rhesus monkey (*Macaca mulatta*). *Toxicol. Appl. Pharmacol.* 93(2):231-246.

- Brewster, D.W., Y.B. Banks, A.M. Clark and L.S. Birnbaum. 1989. Comparative dermal absorption of 2,3,7,8-tetrachlorodibenzo-p-dioxin and three polychlorinated dibenzofurans. *Toxicol. Appl. Pharmacol.* 97(1):156-166.
- Broadbent, T.A. and H.S. Broadbent. 1998. 1. The chemistry and pharmacology of indole-3-carbinol (indole-3-methanol) and 3-(methoxymethyl)indole. [Part II]. *Curr. Med. Chem.* 5(6):469-491.
- Brodie, A.E., V.A. Azarenko and C.Y. Hu. 1996. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) inhibition of fat cell differentiation. *Toxicol. Lett.* 84(1):55-59.
- Brodie, B.B. and W.D. Reid. 1967. Some pharmacological consequences of species variation in rates of metabolism. *Fed. Proc.* 26:1062-1070.
- Brouwer, A. 1987. Interference of 3,4,3',4'-tetrachlorobiphenyl in vitamin A (retinoids) metabolism: possible implications for toxicity and carcinogenicity of polychlorinated aromatic hydrocarbons, University of Leiden.
- Brouwer, A. and K.J. van den Berg. 1983. Early decrease in retinoid levels in mice after exposure to low doses of polychlorinated biphenyls. *Chemosphere.* 12(2-3):555-557.
- Brouwer, A. and K.J. van den Berg. 1984. Early and differential decrease in natural retinoid levels in C57BL/Rij and DBA/2 mice by 3,4,3',4'-tetrachlorobiphenyl. *Toxicol. Appl. Pharmacol.* 73(2):204-209.
- Brouwer, A. and K.J. van den Berg. 1986. Binding of a metabolite of 3,4,3',4'-tetrachlorobiphenyl to transthyretin reduces serum vitamin A transport by inhibiting the formation of the protein complex carrying both retinol and thyroxin. *Toxicol. Appl. Pharmacol.* 85(3):301-312.
- Brouwer, A., K.J. van den Berg and A. Kukler. 1985. Time and dose responses of the reduction in retinoid concentrations in C57BL/Rij and DBA/2 mice induced by 3,4,3',4'-tetrachlorobiphenyl. *Toxicol. Appl. Pharmacol.* 78(2):180-189.
- Brouwer, A., K.J. van den Berg, W.S. Blaner and D.S. Goodman. 1986. Transthyretin (prealbumin) binding of PCBs, a model for the mechanism of interference with vitamin A and thyroid hormone metabolism. *Chemosphere.* 15:1699-1706.
- Brouwer, A., H. Hakansson, A. Kukler, K.J. van den Berg and U.G. Ahlborg. 1989. Marked alterations in retinoid homeostasis of Sprague-Dawley rats induced by a single i.p. dose of 10 micrograms/kg of 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicology.* 58(3):267-283.
- Brouwer, A., U.G. Ahlborg, M. van den Berg, L.S. Birnbaum, E.R. Boersma, B. Bosveld, M.S. Denison, L.E. Gray, L. Hagmar and E. Holene. 1995. Functional aspects of developmental toxicity of polychlorinated aromatic hydrocarbons in experimental animals and human infants. *Eur. J. Pharmacol.* 293(1):1-40.

- Brown, L.M., A. Blair, R. Gibson, G.D. Everett, K.P. Cantor, L.M. Schuman, L.F. Burmeister, S.F. Van Lier and F. Dick. 1990. Pesticide exposures and other agricultural risk factors for leukemia among men in Iowa and Minnesota. *Cancer Res.* 50(20):6585-6591.
- Brown, L.M., L.F. Burmeister, G.D. Everett and A. Blair. 1993. Pesticide exposures and multiple myeloma in Iowa men. *Cancer Cause Control.* 4(2):153-156.
- Brown, N.M. and C.A. Lamartiniere. 1995. Xenoestrogens alter mammary gland differentiation and cell proliferation in the rat. *Environ. Health Perspect.* 103(7-8):708-713.
- Brown, N.M., P.A. Manzillo, J.X. Zhang, J. Wang and C.A. Lamartiniere. 1998. Prenatal TCDD and predisposition to mammary cancer in the rat. *Carcinogenesis.* 19(9):1623-1629.
- Bruner-Tran, K.L., S.E. Rier, E. Eisenberg and K.G. Osteen. 1999. The potential role of environmental toxins in the pathophysiology of endometriosis. *Gynecol. Obstet. Invest.* 48 Suppl 1:45-56.
- Brunner, H., T. Wiesmuller, A. Hagenmaier, K. Abraham, R. Krowke and D. Neubert. 1989. Distribution of PCDDs and PCDFs in rat tissues following various routes of administration. *Chemosphere.* 19(1-6):907-912.
- Brunstrom, B. 1988. Sensitivity of embryos from duck, goose, herring gull, and various chicken breeds to 3,3',4,4'-tetrachlorobiphenyl. *Poult. Sci.* 67(1):52-57.
- Brunstrom, B. 1989. Toxicity of coplanar polychlorinated biphenyls in avian embryos. *Chemosphere.* 19(1-6):765-768.
- Brunstrom, B. 1990. Mono-ortho-chlorinated chlorobiphenyls: toxicity and induction of 7-ethoxyresorufin O-deethylase (EROD) activity in chick embryos. *Arch. Toxicol.* 64(3):188-192.
- Brunstrom, B. and L. Andersson. 1988. Toxicity and 7-ethoxyresorufin O-deethylase-inducing potency of coplanar polychlorinated biphenyls (PCBs) in chick embryos. *Arch. Toxicol.* 62(4):263-266.
- Brunstrom, B. and P.O. Darnerud. 1983. Toxicity and distribution in chick embryos of 3,3',4,4'-tetrachlorobiphenyl injected into the eggs. *Toxicology.* 27(2):103-110.
- Brunstrom, B. and J. Lund. 1988. Differences between chick and turkey embryos in sensitivity to 3,3',4,4'-tetrachloro-biphenyl and in concentration/affinity of the hepatic receptor for 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Comp. Biochem. Physiol. C.* 91(2):507-512.

- Bruzy, L.P. and R.A. Hites. 1995. Estimating the atmospheric deposition of polychlorinated dibenzo-p-dioxins and dibenzofurans from soil. *Environ. Sci. Technol.* 29(8):2090-2098.
- Bryant, P.L., G.C. Clark, M.R. Probst and B.D. Abbott. 1997. Effects of TCDD on Ah receptor, ARNT, EGF, and TGF-alpha expression in embryonic mouse urinary tract. *Teratology.* 55(5):326-337.
- Bryant, P.L., J.E. Schmid, S.E. Fenton, A.R. Buckalew and B.D. Abbott. 2001. Teratogenicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in mice lacking the expression of EGF and/or TGF-alpha. *Toxicol. Sci.* 62(1):103-114.
- Buchmann, A., S. Stinchcombe, W. Korner, H. Hagenmaier and K.W. Bock. 1994. Effects of 2,3,7,8-tetrachloro- and 1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin on the proliferation of preneoplastic liver cells in the rat. *Carcinogenesis.* 15(6):1143-1150.
- Buchner, J. 1999. Hsp90 & Co. - a holding for folding. *Trends Biochem. Sci.* 24(4):136-141.
- Bueno-de-Mesquita, H.B., G. Doornbos, D.A. Van der Kuip, M. Kogevinas and R. Winkelmann. 1993. Occupational exposure to phenoxy herbicides and chlorophenols and cancer mortality in The Netherlands. *Am. J. Ind. Med.* 23(2):289-300.
- Burbach, K.M., A. Poland and C.A. Bradfield. 1992. Cloning of the Ah-receptor cDNA reveals a distinctive ligand-activated transcription factor. *Proc. Natl. Acad. Sci. U. S. A.* 89(17):8185-8189.
- Burchell, B., D.W. Nebert, D.R. Nelson, K.W. Bock, T. Iyanagi, P.L. Jansen, D. Lancet, G.J. Mulder, J.R. Chowdhury and G. Siest. 1991. The UDP glucuronosyltransferase gene superfamily: suggested nomenclature based on evolutionary divergence. *DNA Cell Biol.* 10(7):487-494.
- Burka, L.T., S.R. McGown and K.B. Tomer. 1990. Identification of the biliary metabolites of 2,3,7,8-tetrachlorodibenzo-furan in the rat. *Chemosphere.* 21(10-11):1231-1242.
- Burleson, G.R., H. Lebec, Y.G. Yang, J.D. Ibanes, K.N. Pennington and L.S. Birnbaum. 1996. Effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on influenza virus host resistance in mice. *Fundam. Appl. Toxicol.* 29(1):40-47.
- Burton, J.E., J.E. Michalek and A.J. Rahe. 1998. Serum dioxin, chloracne, and acne in veterans of Operation Ranch Hand. *Arch. Environ. Health.* 53(3):199-204.
- Busbee, D.L. and R.L. Ziprin. 1994. Gastrointestinal uptake and vascular transport of 2,4'-dichlorobiphenyl. *Arch. Toxicol.* 68(2):96-102.

Bushnell, P.J. and D.C. Rice. 1999. Behavioral assessments of learning and attention in rats exposed perinatally to 3,3',4,4',5-pentachlorobiphenyl (PCB 126). *Neurotoxicol. Teratol.* 21(4):381-392.

Buters, J.T., S. Sakai, T. Richter, T. Pineau, D.L. Alexander, U. Savas, J. Doehmer, J.M. Ward, C.R. Jefcoate and F.J. Gonzalez. 1999. Cytochrome P450 CYP1B1 determines susceptibility to 7, 12-dimethylbenz[a]anthracene-induced lymphomas. *Proc. Natl. Acad. Sci. U. S. A.* 96(5):1977-1982.

Butler, M.A., M. Iwasaki, F.P. Guengerich and F.F. Kadlubar. 1989. Human cytochrome P-450PA (P-450IA2), the phenacetin O-deethylase, is primarily responsible for the hepatic 3-demethylation of caffeine and N-oxidation of carcinogenic arylamines. *Proc. Natl. Acad. Sci. U. S. A.* 86(20):7696-7700.

Buu-Hoi, N.P., P.H. Chanh, G. Sesque, M.C. zum-Gelade and G. Saint-Ruf. 1972. Enzymatic functions as targets of the toxicity of "Dioxin" (2,3,7,8-tetrachlorodibenzo-p-dioxin). *Naturwissenschaften.* 59(4):173-174.

Calvert, G.M., D.K. Wall, M.H. Sweeney and M.A. Fingerhut. 1998. Evaluation of cardiovascular outcomes among U.S. workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Environ. Health Perspect.* 106 Suppl 2:635-643.

Calvert, G.M., M.H. Sweeney, J.A. Morris, M.A. Fingerhut, R.W. Hornung and W.E. Halperin. 1991. Evaluation of chronic bronchitis, chronic obstructive pulmonary disease, and ventilatory function among workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Am. Rev. Respir. Dis.* 144(6):1302-1306.

Calvert, G.M., R.W. Hornung, M.H. Sweeney, M.A. Fingerhut and W.E. Halperin. 1992. Hepatic and gastrointestinal effects in an occupational cohort exposed to 2,3,7,8-tetrachlorodibenzo-para-dioxin. *JAMA.* 267(16):2209-2214.

Calvert, G.M., M.H. Sweeney, M.A. Fingerhut, R.W. Hornung and W.E. Halperin. 1994. Evaluation of porphyria cutanea tarda in U.S. workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Am. J. Ind. Med.* 25(4):559-571.

Calvert, G.M., K.K. Willie, M.H. Sweeney, M.A. Fingerhut and W.E. Halperin. 1996. Evaluation of serum lipid concentrations among U.S. workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Arch. Environ. Health.* 51(2):100-107.

Calvert, G.M., M.H. Sweeney, J. Deddens and D.K. Wall. 1999. Evaluation of diabetes mellitus, serum glucose, and thyroid function among United States workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Occup. Environ. Med.* 56(4):270-276.

Canga, L., R. Levi and A.B. Rifkind. 1988. Heart as a target organ in 2,3,7,8-tetrachlorodibenzo-p-dioxin toxicity: decreased beta-adrenergic responsiveness and evidence of increased intracellular calcium. *Proc. Natl. Acad. Sci. U. S. A.* 85(3):905-909.

Cantoni, L., M. Salmona and M. Rizzardini. 1981. Porphyrinogenic effect of chronic treatment with 2,3,7,8-tetrachlorodibenzo-p-dioxin in female rats. Dose-effect relationship following urinary excretion of porphyrins. *Toxicol. Appl. Pharmacol.* 57(2):156-163.

Cantoni, L., F.D. Dal, A. Ferraroli, M. Salmona and R. Ruggieri. 1984a. Different susceptibility of mouse tissues to porphyrinogenic effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Lett.* 20(2):201-210.

Cantoni, L., F.D. Dal, M. Rizzardini and R. Ruggieri. 1984b. In vitro inhibitory effect on porphyrinogen carboxylase of liver extracts from TCDD treated mice. *Toxicol. Lett.* 20(2):211-217.

Cantor, K.P., A. Blair, G. Everett, R. Gibson, L.F. Burmeister, L.M. Brown, L. Schuman and F.R. Dick. 1992. Pesticides and other agricultural risk factors for non-Hodgkin's lymphoma among men in Iowa and Minnesota. *Cancer Res.* 52(9):2447-2455.

Caramaschi, F., G. del Corno, C. Favaretti, S.E. Giambelluca, E. Montesarchio and G.M. Fara. 1981. Chloracne following environmental contamination by TCDD in Seveso, Italy. *Int. J. Epidemiol.* 10(2):135-143.

Carlson, D.B. and G.H. Perdew. 2002. A dynamic role for the Ah receptor in cell signaling? Insights from a diverse group of Ah receptor interacting proteins. *J. Biochem. Mol. Toxicol.* 16(6):317-325.

Carlsson, A. and M. Lindqvist. 1978. Dependence of 5-HT and catecholamine synthesis on concentrations of precursor amino-acids in rat brain. *Naunyn Schmiedebergs Arch. Pharmacol.* 303(2):157-164.

Carlstedt-Duke, J.M.B. 1979. Tissue distribution of the receptor for 2,3,7,8-tetrachlorodibenzo-p-dioxin in the rat. *Cancer Res.* 39(8):3172-3176.

Carpenter, G. 1987. Receptors for epidermal growth factor and other polypeptide mitogens. *Annu. Rev. Biochem.* 56:881-914.

Carpenter, G. and S. Cohen. 1979. Epidermal growth factor. *Annu. Rev. Biochem.* 48:193-216.

Carrier, F., R.A. Owens, D.W. Nebert and A. Puga. 1992. Dioxin-dependent activation of murine Cyp1a-1 gene transcription requires protein kinase C-dependent phosphorylation. *Mol. Cell Biol.* 12(4):1856-1863.

Carrier, G. and J. Brodeur. 1991. Non-linear toxicokinetic behavior of TCDD like halogenated polycyclic aromatic hydrocarbons (H-PAH) in various species. *Toxicologist.* 11:895.



Carrier, G., R.C. Brunet and J. Brodeur. 1995a. Modeling of the toxicokinetics of polychlorinated dibenzo-p-dioxins and dibenzofurans in mammals, including humans. II. Kinetics of absorption and disposition of PCDDs/PCDFs. *Toxicol. Appl. Pharmacol.* 131(2):267-276.

Carrier, G., R.C. Brunet and J. Brodeur. 1995b. Modeling of the toxicokinetics of polychlorinated dibenzo-p-dioxins and dibenzofurans in mammals, including humans. I. Nonlinear distribution of PCDD/PCDF body burden between liver and adipose tissues. *Toxicol. Appl. Pharmacol.* 131(2):253-266.

Caruso, J.A., D.W. Laird and G. Batist. 1999. Role of HSP90 in mediating cross-talk between the estrogen receptor and the Ah receptor signal transduction pathways. *Biochem. Pharmacol.* 58(9):1395-1403.

Carver, L.A. and C.A. Bradfield. 1997. Ligand-dependent interaction of the aryl hydrocarbon receptor with a novel immunophilin homolog in vivo. *J. Biol. Chem.* 272(17):11452-11456.

Carver, L.A., V. Jackiw and C.A. Bradfield. 1994. The 90-kDa heat shock protein is essential for Ah receptor signaling in a yeast expression system. *J. Biol. Chem.* 269(48):30109-30112.

Carver, L.A., J.J. LaPres, S. Jain, E.E. Dunham and C.A. Bradfield. 1998. Characterization of the Ah receptor-associated protein, ARA9. *J. Biol. Chem.* 273(50):33580-33587.

Cavalieri, E.L., D.E. Stack, P.D. Devanesan, R. Todorovic, I. Dwivedy, S. Higginbotham, S.L. Johansson, K.D. Patil, M.L. Gross, J.K. Gooden, R. Ramanathan, R.L. Cerny and E.G. Rogan. 1997. Molecular origin of cancer: catechol estrogen-3,4-quinones as endogenous tumor initiators. *Proc. Natl. Acad. Sci. U. S. A.* 94(20):10937-10942.

CDC (Centers for Disease Control and Prevention). 1988. Health status of Vietnam veterans. I. Psychosocial characteristics. The Vietnam experience study. *JAMA.* 259(18):2701-2707.

CDC (Centers for Disease Control and Prevention). 1988. Health status of Vietnam veterans. III. Reproductive outcomes and child health. The Vietnam experience study. *JAMA.* 259(18):2715-2719.

CDC (Centers for Disease Control and Prevention). 1997. Fertility, family planning, and women's health: new data from the 1995 National Survey of Family Growth. *Vital and Health Statistics.* U.S. Department of Health and Human Services, National Center for Health Statistics, CDC, Hyattsville, MD. 19. Available at [http://www.cdc.gov/nchs/data/series/sr\\_23/sr23\\_019.pdf](http://www.cdc.gov/nchs/data/series/sr_23/sr23_019.pdf).

CDC (Centers for Disease Control and Prevention). 2008. Second national report on human exposure to environmental chemicals. Revised March 2003. Centers for Disease Control and Prevention, Department of Health and Human Services, Atlanta, GA. NCEH Pub No. 02-0716.

Centers for Disease Control Veterans Health Studies. 1988. Serum 2,3,7,8-tetrachlorodibenzo-p-dioxin levels in US Army Vietnam-era veterans. *JAMA*. 260(9):1249-1254.

Centers for Disease Control Vietnam Experience Study. 1987. Postservice mortality among Vietnam veterans. *JAMA*. 257:790-795.

Centers for Disease Control Vietnam Experience Study. 1989. Health status of Vietnam veterans. Vietnam experience study. Centers for Disease Control and Prevention, Atlanta, GA. Vols 1–5, Supplements A–C.

Chaffin, C.L., R.E. Peterson and R.J. Hutz. 1996. In utero and lactational exposure of female Holtzman rats to 2,3,7,8-tetrachlorodibenzo-p-dioxin: modulation of the estrogen signal. *Biol. Reprod.* 55(1):62-67.

Chaffin, C.L., A.L. Trewin, G. Watanabe, K. Taya and R.J. Hutz. 1997. Alterations to the pituitary-gonadal axis in the peripubertal female rat exposed in utero and through lactation to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Biol. Reprod.* 56(6):1498-1502.

Chahoud, I., R. Krowke, A. Schimmel, H.J. Merker and D. Neubert. 1989. Reproductive toxicity and pharmacokinetics of 2,3,7,8-tetrachlorodibenzo-p-dioxin. 1. Effects of high doses on the fertility of male rats. *Arch. Toxicol.* 63(6):432-439.

Chaloupka, K., N. Harper, V. Krishnan, M. Santostefano, L.V. Rodriguez and S. Safe. 1993. Synergistic activity of polynuclear aromatic hydrocarbon mixtures as aryl hydrocarbon (Ah) receptor agonists. *Chem. Biol. Interact.* 89(2-3):141-158.

Chan, W.K., G. Yao, Y.Z. Gu and C.A. Bradfield. 1999. Cross-talk between the aryl hydrocarbon receptor and hypoxia inducible factor signaling pathways. Demonstration of competition and compensation. *J. Biol. Chem.* 274(17):12115-12123.

Chang, C.Y. and A. Puga. 1998. Constitutive activation of the aromatic hydrocarbon receptor. *Mol. Cell Biol.* 18(1):525-535.

Chang, K.J., F.J. Lu, T.C. Tung and T.P. Lee. 1980a. Studies on patients with polychlorinated biphenyl poisoning. 2. Determination of urinary coproporphyrin, uroporphyrin, delta-aminolevulinic acid and porphobilinogen. *Res. Commun. Chem. Pathol. Pharmacol.* 30(3):547-554.

Chang, K.J., J.S. Chen, P.C. Huang and T.C. Tung. 1980b. [Study of patients with polychlorinated biphenyls poisoning. I. Blood analyses of patients (author's transl)]. *Taiwan Yi Xue Hui Za Zhi.* 79(3):304-313.

- Chang, K.J., K.H. Hsieh, T.P. Lee, S.Y. Tang and T.C. Tung. 1981. Immunologic evaluation of patients with polychlorinated biphenyl poisoning: determination of lymphocyte subpopulations. *Toxicol. Appl. Pharmacol.* 61(1):58-63.
- Chang, K.J., K.H. Hsieh, S.Y. Tang, T.C. Tung and T.P. Lee. 1982a. Immunologic evaluation of patients with polychlorinated biphenyl poisoning: evaluation of delayed-type skin hypersensitive response and its relation to clinical studies. *J. Toxicol. Environ. Health.* 9(2):217-223.
- Chang, K.J., K.H. Hsieh, T.P. Lee and T.C. Tung. 1982b. Immunologic evaluation of patients with polychlorinated biphenyl poisoning: determination of phagocyte Fc and complement receptors. *Environ. Res.* 28(2):329-334.
- Chao, W.Y., C.C. Hsu and Y.L. Guo. 1997. Middle-ear disease in children exposed prenatally to polychlorinated biphenyls and polychlorinated dibenzofurans. *Arch. Environ. Health.* 52(4):257-262.
- Chapman, D.E. and C.M. Schiller. 1985. Dose-related effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in C57BL/6J and DBA/2J mice. *Toxicol. Appl. Pharmacol.* 78(1):147-157.
- Chastain, J.E., Jr. and T.L. Pazdernik. 1985. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)-induced immunotoxicity. *Int. J. Immunopharmacol.* 7(6):849-856.
- Chen, I., S. Safe and L. Bjeldanes. 1996. Indole-3-carbinol and diindolylmethane as aryl hydrocarbon (Ah) receptor agonists and antagonists in T47D human breast cancer cells. *Biochem. Pharmacol.* 51(8):1069-1076.
- Chen, J.D. and R.M. Evans. 1995. A transcriptional co-repressor that interacts with nuclear hormone receptors. *Nature.* 377(6548):454-457.
- Chen, P.H. and R.A. Hites. 1983. Polychlorinated biphenyls and dibenzofurans retained in the tissues of a deceased patient with Yu-Cheng in Taiwan. *Chemosphere.* 12(11-12):1507-1516.
- Chen, P.H., J.M. Gaw, C.K. Wong and C.J. Chen. 1980. Levels and gas chromatographic patterns of polychlorinated biphenyls in the blood of patients after PCB poisoning in Taiwan. *Bull. Environ. Contam Toxicol.* 25(2):325-329.
- Chen, R.C., Y.C. Chang, K.J. Chang, F.J. Lu and T.C. Tung. 1981. Peripheral neuropathy caused by chronic polychlorinated biphenyls poisoning. *Taiwan Yi Xue Hui Za Zhi.* 80(1):47-54.
- Chen, R.C., Y.C. Chang, T.C. Tung and K.J. Chang. 1983. Neurological manifestations of chronic polychlorinated biphenyls poisoning. *Proc. Natl. Sci. Council. Repub. China (In English, Chinese Summary).* 7:87-91.

- Chen, R.C., S.Y. Tang, H. Miyata, T. Kashimoto, Y.C. Chang, K.J. Chang and T.C. Tung. 1985. Polychlorinated biphenyl poisoning: correlation of sensory and motor nerve conduction, neurologic symptoms, and blood levels of polychlorinated biphenyls, quaterphenyls, and dibenzofurans. *Environ. Res.* 37(2):340-348.
- Chen, R.L. and R.L. Shen. 1981. *Clin. Med. (Taipei) Chinese.* 7:66-70.
- Chen, S.W., B.L. Roman, S.Z. Saroya, K. Shinomiya, R.W. Moore and R.E. Peterson. 1993. In utero exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) does not impair testosterone production by fetal rat testis. *Toxicologist.* 13:104.
- Chen, Y.H. and R.H. Tukey. 1996. Protein kinase C modulates regulation of the CYP1A1 gene by the aryl hydrocarbon receptor. *J. Biol. Chem.* 271(42):26261-26266.
- Chen, Y.C., Y.L. Guo and C.C. Hsu. 1992. Cognitive development of children prenatally exposed to polychlorinated biphenyls (Yu-Cheng children) and their siblings. *J. Formos. Med. Assoc.* 91(7):704-707.
- Chen, Y.C., Y.L. Guo, M.L. Yu et al. 1993. Physical and cognitive development of Yu-Cheng children born after year 1985. In: *The 13th International Symposium of Chlorinated Dioxins and Related Compounds, Vienna, Austria.*
- Chen, Y.H., J. Riby, P. Srivastava, J. Bartholomew, M. Denison and L. Bjeldanes. 1995. Regulation of CYP1A1 by indolo[3,2-b]carbazole in murine hepatoma cells. *J. Biol. Chem.* 270(38):22548-22555.
- Chen, Y.J. and C.C. Hsu. 1994. Effects of prenatal exposure to PCBs on the neurological function of children: a neuropsychological and neurophysiological study. *Dev. Med. Child Neurol.* 36(4):312-320.
- Cheung, M.O., E.F. Gilbert and R.E. Peterson. 1981a. Cardiovascular teratogenicity of 2, 3, 7, 8-tetrachlorodibenzo-p-dioxin in the chick embryo. *Toxicol. Appl. Pharmacol.* 61(2):197-204.
- Cheung, M.O., E.F. Gilbert and R.E. Peterson. 1981b. Cardiovascular teratogenesis in chick embryos treated with 2,3,7,8-tetrachlorodibenzo-p-dioxin. In: *Toxicology of Halogenated Hydrocarbons: Health and Ecological Effects*, M.A.Q. Kahn and R.H. Stanton, Eds. Pergamon Press, Elmsford, NY. pp. 202-208.
- Chia, L.G. and F.L. Chu. 1984. Neurological studies on polychlorinated biphenyl (PCB)-poisoned patients. *Am. J. Ind. Med.* 5:117-126.
- Chia, L.G. and F.L. Chu. 1985. A clinical and electrophysiological study of patients with polychlorinated biphenyl poisoning. *J. Neurol. Neurosurg. Psychiatr.* 48(9):894-901.

- Choi, E.J., D.G. Toscano, J.A. Ryan, N. Riedel and W.A. Toscano, Jr. 1991. Dioxin induces transforming growth factor- $\alpha$  in human keratinocytes. *J. Biol. Chem.* 266(15):9591-9597.
- Chou, S.M., T. Miike, W.M. Payne and G.J. Davis. 1979. Neuropathology of "spinning syndrome" induced by prenatal intoxication with a PCB in mice. *Ann. N. Y. Acad. Sci.* 320:373-395.
- Chung, L.W. and G. Ferland-Raymond. 1975. Differences among rat sex accessory glands in their neonatal androgen dependency. *Endocrinology.* 97(1):145-153.
- Chung, L.W.K. and G. Raymond. 1976. Neonatal imprinting of the accessory glands and hepatic monooxygenases in adulthood. *Fed. Proc.* 35:686.
- Clark, A.J. 1933. *The Mode of Action of Drugs on Cells.* Edward Arnold, London, England.
- Clark, A.J. 1993. *The Mode of Action of Drugs on Cells.* Williams and Wilkins, Baltimore, MD.
- Clark, D.A., J. Gauldie, M.R. Szewczuk and G. Sweeney. 1981. Enhanced suppressor cell activity as a mechanism of immunosuppression by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Proc. Soc. Exp. Biol. Med.* 168(2):290-299.
- Clark, D.A., G. Sweeney, S. Safe, E. Hancock, D.G. Kilburn and J. Gauldie. 1983. Cellular and genetic basis for suppression of cytotoxic T cell generation by haloaromatic hydrocarbons. *Immunopharmacology.* 6(2):143-153.
- Clark, G.C., A. Tritscher, R. Maronpot, J. Foley and Lucier G. 1991a. Tumor promotion by TCDD in female rats. *Banbury Report 35: Biological Basis for Risk Assessment of Dioxin and Related Compounds.* Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. pp. 389-404.
- Clark, G.C., J.A. Blank, D.R. Germolec and M.I. Luster. 1991b. 2,3,7,8-Tetrachlorodibenzo-p-dioxin stimulation of tyrosine phosphorylation in B lymphocytes: potential role in immunosuppression. *Mol. Pharmacol.* 39(4):495-501.
- Clark, G.C., M.J. Taylor, A.M. Tritscher and G.W. Lucier. 1991c. Tumor necrosis factor involvement in 2,3,7,8-tetrachlorodibenzo-p-dioxin-mediated endotoxin hypersensitivity in C57BL/6J mice congenic at the Ah locus. *Toxicol. Appl. Pharmacol.* 111(3):422-431.
- Clark, G., A. Tritscher, D. Bell and Lucier G. 1992. Integrated approach for evaluating species and interindividual differences in responsiveness to dioxins and structural analogs. *Environ. Health Perspect.* 98:125-132.

Clark, R.L., C.A. Anderson, S. Prahalada, R.T. Robertson, E.A. Lochry, Y.M. Leonard, J.L. Stevens and A.M. Hoberman. 1993. Critical developmental periods for effects on male rat genitalia induced by finasteride, a 5 alpha-reductase inhibitor. *Toxicol. Appl. Pharmacol.* 119(1):34-40.

Clarke, A.G. and K.A. MacLennan. 1986. The many facets of thymic involution. *Immunol. Today.* 7(7-8):204-205.

Clarke, D.W., J.F. Brien, K. Nakatsu, H. Taub, W.J. Racz and G.S. Marks. 1983. Gas-liquid chromatographic determination of the distribution of 3,3',4,4'-tetrachlorobiphenyl in the adult female rat following short-term oral administration. *Can. J. Physiol Pharmacol.* 61(10):1093-1100.

Clarke, D.W., J.F. Brien, W.J. Racz, K. Nakatsu and G.S. Marks. 1984. The disposition and the liver and thymus gland toxicity of 3,3',4,4'-tetrachlorobiphenyl in the female rat. *Can. J. Physiol Pharmacol.* 62(10):1253-1260.

Clevenger, M.A., S.M. Roberts, D.L. Lattin, R.D. Harbison and R.C. James. 1989. The pharmacokinetics of 2,2',5,5'-tetrachlorobiphenyl and 3,3',4,4'-tetrachlorobiphenyl and its relationship to toxicity. *Toxicol. Appl. Pharmacol.* 100(2):315-327.

Clewell, H.J., III and M.E. Andersen. 1985. Risk assessment extrapolations and physiological modeling. *Toxicol. Ind. Health.* 1(4):111-131.

Clewell, H.J., P.R. Gentry, T.R. Covington, R. Sarangapani and J.G. Teeguarden. 2004. Evaluation of the potential impact of age- and gender-specific pharmacokinetic differences on tissue dosimetry. *Toxicol. Sci.* 79(2):381-393.

Cochet, C., G.N. Gill, J. Meisenhelder, J.A. Cooper and T. Hunter. 1984. C-kinase phosphorylates the epidermal growth factor receptor and reduces its epidermal growth factor-stimulated tyrosine protein kinase activity. *J. Biol. Chem.* 259(4):2553-2558.

Coffey, D.S. 1988. Androgen action and the sex accessory tissues. In: *The Physiology of Reproduction*, E. Knobil and J. Neill, Eds. Raven Press, New York, NY. pp. 1081-1119.

Coggon, D., B. Pannett and P. Winter. 1991. Mortality and incidence of cancer at four factories making phenoxy herbicides. *Br. J. Ind. Med.* 48(3):173-178.

Coggon, D., B. Pannett, P.D. Winter, E.D. Acheson and J. Bonsall. 1986. Mortality of workers exposed to 2 methyl-4 chlorophenoxyacetic acid. *Scand. J. Work Environ. Health.* 12(5):448-454.

Cogliano, V.J. 1998. Assessing the cancer risk from environmental PCBs. *Environ. Health Perspect.* 106(6):317-323.

- Cohen, G.M., W.M. Bracken, R.P. Iyer, D.L. Berry, J.K. Selkirk and T.J. Slaga. 1979. Anticarcinogenic effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on benzo(a)pyrene and 7,12-dimethylbenz(a)anthracene tumor initiation and its relationship to DNA binding. *Cancer Res.* 39(10):4027-4033.
- Cole, P. 1980. Direct testimony before the Environmental Protection Agency(FIFRA Docket Nos. 415ff. Exhibit. 860.).
- Cole, P., D. Trichopoulos, H. Pastides, T. Starr and J.S. Mandel. 2003. Dioxin and cancer: a critical review. *Regul. Toxicol. Pharmacol.* 38(3):378-388.
- Coleman , R.D. 1965. Development of the rat palate. *Anat. Rec.* 151:107-117.
- Collins, J.J., M.E. Strauss, G.J. Levinskas and P.R. Conner. 1993. The mortality experience of workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin in a trichlorophenol process accident. *Epidemiology.* 4(1):7-13.
- Collins, W.T., Jr. and C.C. Capen. 1980. Fine structural lesions and hormonal alterations in thyroid glands of perinatal rats exposed in utero and by the milk to polychlorinated biphenyls. *Am. J. Pathol.* 99(1):125-142.
- Colton, T. 1986. Herbicide exposure and cancer. *JAMA.* 256(9):1176-1178.
- Comer, C.P. and S. Norton. 1982. Effects of perinatal methimazole exposure on a developmental test battery for neurobehavioral toxicity in rats. *Toxicol. Appl. Pharmacol.* 63(1):133-141.
- Commonwealth Department of Veterans' Affairs. 1998a. Morbidity of Vietnam Veterans: A study of the health of Australia's Vietnam veteran community. Volume 1: Male Vietnam veterans. Survey and community comparison outcomes. Australian Government Department of Veterans' Affairs, Canberra, Australia. Available at <http://www.dva.gov.au/health/research/morbidity/morbidity.htm>.
- Commonwealth Department of Veterans' Affairs. 1998b. Morbidity of Vietnam veterans: A study of the health of Australia's Vietnam veteran community. Volume 2: Female vietnam veterans. Survey and community comparison outcomes. Australian Government Department of Veteran's Affairs, Canberra, Australia. Available at <http://www.dva.gov.au/health/HlthStdy/vetshtml/content.htm>.
- Conney, A.H. 1982. Induction of microsomal enzymes by foreign chemicals and carcinogenesis by polycyclic aromatic hydrocarbons: G. H. A. Clowes Memorial Lecture. *Cancer Res.* 42(12):4875-4917.
- Conolly, R.B. and M.E. Andersen. 1997. Hepatic foci in rats after diethylnitrosamine initiation and 2,3,7,8-tetrachlorodibenzo-p-dioxin promotion: evaluation of a quantitative two-cell model and of CYP 1A1/1A2 as a dosimeter. *Toxicol. Appl. Pharmacol.* 146(2):281-293.

- Conolly, R.B. and J.S. Kimbell. 1994. Computer simulation of cell growth governed by stochastic processes: application to clonal growth cancer models. *Toxicol. Appl. Pharmacol.* 124(2):284-295.
- Constable, J.D. and M.C. Hatch. 1985. Reproductive effects of herbicide exposure in Vietnam: recent studies by the Vietnamese and others. *Teratog. Carcinog. Mutagen.* 5(4):231-250.
- Cook, J.C. and W.F. Greenlee. 1989. Characterization of a specific binding protein for 2,3,7,8-tetrachlorodibenzo-p-dioxin in human thymic epithelial cells. *Mol. Pharmacol.* 35(5):713-719.
- Cook, J.C., K.M. Dold and W.F. Greenlee. 1987. An in vitro model for studying the toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin to human thymus. *Toxicol. Appl. Pharmacol.* 89(2):256-268.
- Cook, P.M., D.W. Kuehl, Walker.M.K. and R.E. Peterson. 1991. Bioaccumulation and toxicity of TCDD and related compounds in aquatic ecosystems. *Banbury Report 35: Biological Basis for Risk Assessment of Dioxins and Related Compounds.* Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. pp. 143-168.
- Cook, R.R. 1981. Dioxin, chloracne, and soft tissue sarcoma. *Lancet.* 1(8220 Pt 1):618-619.
- Cooke, B.A., E.A. Platts, R. Abayasekera, L.O. Kurlak, D. Schulster and M.H. Sullivan. 1989. Control of multiple transducing systems by LH which results in the modulation of adenylate cyclase, protein kinase C, lipooxygenases and cyclooxygenases. *J. Reprod. Fertil. Suppl.* 37:139-145.
- Cooper, K.R. 1989. The effects of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans on aquatic organisms. *CRC Crit. Rev. Aquat Sci.* 1:227-242.
- Corrao, G., M. Calleri, F. Carle, R. Russo, S. Bosia and P. Piccioni. 1989. Cancer risk in a cohort of licensed pesticide users. *Scand. J. Work Environ. Health.* 15(3):203-209.
- Corton, J.C., E.S. Moreno, S.M. Hovis, L.S. Leonard, K.W. Gaido, M.M. Joyce and S.B. Kennett. 1996. Identification of a cell-specific transcription activation domain within the human Ah receptor nuclear translocator. *Toxicol. Appl. Pharmacol.* 139(2):272-280.
- Coumailleau, P., L. Poellinger, J.A. Gustafsson and M.L. Whitelaw. 1995. Definition of a minimal domain of the dioxin receptor that is associated with Hsp90 and maintains wild type ligand binding affinity and specificity. *J. Biol. Chem.* 270(42):25291-25300.
- Courtney, K.D. 1976. Mouse teratology studies with chlorodibenzo-p-dioxins. *Bull. Environ. Contam Toxicol.* 16(6):674-681.



- Courtney, K.D. and J.A. Moore. 1971. Teratology studies with 2,4,5-trichlorophenoxyacetic acid and 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 20(3):396-403.
- Couture, L.A., M.W. Harris and L.S. Birnbaum. 1989. Developmental toxicity of 2,3,4,7,8-pentachlorodibenzofuran in the Fischer 344 rat. *Fundam. Appl. Toxicol.* 12(2):358-366.
- Couture, L.A., B.D. Abbott and L.S. Birnbaum. 1990a. A critical review of the developmental toxicity and teratogenicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin: recent advances toward understanding the mechanism. *Teratology.* 42(6):619-627.
- Couture, L.A., M.W. Harris and L.S. Birnbaum. 1990b. Characterization of the peak period of sensitivity for the induction of hydronephrosis in C57BL/6N mice following exposure to 2,3,7, 8-tetrachlorodibenzo-p-dioxin. *Fundam. Appl. Toxicol.* 15(1):142-150.
- Crawford, R.B., M.P. Holsapple and N.E. Kaminski. 1997. Leukocyte activation induces aryl hydrocarbon receptor up-regulation, DNA binding, and increased Cyp1a1 expression in the absence of exogenous ligand. *Mol. Pharmacol.* 52(6):921-927.
- Cresanta, J.L., R.P. Farris, J.B. Croft, L.S. Webber, G.C. Frank and G.S. Berenson. 1988. Trends in fatty acid intakes of 10-year-old children, 1973 to 1982. *J. Am. Diet. Assoc.* 88(2):178-184.
- Cresco, E., V. DeMarino, L. Donatelli and G. Pagini. 1978. Effette neuropsicofarmacologici deila TCDD. *Boll. Soc. Ital. Biol. Sper.* 54:1592-1596.
- Crofton, K.M. and D.C. Rice. 1999. Low-frequency hearing loss following perinatal exposure to 3,3',4,4',5-pentachlorobiphenyl (PCB 126) in rats. *Neurotoxicol. Teratol.* 21(3):299-301.
- Crofts, F.G., T.R. Sutter and P.T. Strickland. 1998. Metabolism of 2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine by human cytochrome P4501A1, P4501A2 and P4501B1. *Carcinogenesis.* 19(11):1969-1973.
- Crow, K. 1978. Chloracne: the chemical disease. *New Sci.* 78(11):78-80.
- Crow, K.D. 1978. Chloracne--an up to date assessment. *Ann. Occup. Hyg.* 21(3):297-298.
- Crump, K.S. 1984. A new method for determining allowable daily intakes. *Fundam. Appl. Toxicol.* 4(5):854-871.
- Crump, K.S., R. Canady and M. Kogevinas. 2003. Meta-analysis of dioxin cancer dose response for three occupational cohorts. *Environ. Health Perspect.* 111(5):681-687.

Cummings, A.M. and J.L. Metcalf. 1995. Induction of endometriosis in mice: a new model sensitive to estrogen. *Reprod. Toxicol.* 9(3):233-238.

Cummings, A.M., J.L. Metcalf and L. Birnbaum. 1996. Promotion of endometriosis by 2,3,7,8-tetrachlorodibenzo-p-dioxin in rats and mice: time-dose dependence and species comparison. *Toxicol. Appl. Pharmacol.* 138(1):131-139.

Cummings, A.M., J.M. Hedge and L.S. Birnbaum. 1999. Effect of prenatal exposure to TCDD on the promotion of endometriotic lesion growth by TCDD in adult female rats and mice. *Toxicol. Sci.* 52(1):45-49.

Curtis, L.R., N.I. Kerkvliet, L. Baecher-Steppan and H.M. Carpenter. 1990. 2,3,7,8-Tetrachlorodibenzo-p-dioxin pretreatment of female mice altered tissue distribution but not hepatic metabolism of a subsequent dose. *Fundam. Appl. Toxicol.* 14(3):523-531.

Cuthill, S., A. Wilhelmsson, G.G. Mason, M. Gillner, L. Poellinger and J.A. Gustafsson. 1988. The dioxin receptor: a comparison with the glucocorticoid receptor. *J. Steroid Biochem.* 30(1-6):277-280.

Cutting, R.T., T.H. Phuoc, J. Ballo, M.W. Benenson and C.H. Evans. 1970. Congenital malformations, hydatidiform moles, and stillbirths in the Republic of Vietnam 1960-1969. U.S. Department of Defense, U.S. Government Printing Office, Washington, DC.

Czuczwa, J.M., B.D. McVeety and R.A. Hites. 1984. Polychlorinated Dibenzo-p-dioxins and Dibenzofurans in Sediments from Siskiwit Lake, Isle Royale. *Science.* 226(4674):568-569.

Dahl, P., G. Lindstrom, K. Wiberg and C. Rappe. 1995. Absorption of polychlorinated biphenyls, dibenzo-p-dioxins and dibenzofurans by breast-fed infants. *Chemosphere.* 30(12):2297-2306.

Dalager, N.A., H.K. Kang, V.L. Burt and L. Weatherbee. 1991. Non-Hodgkin's lymphoma among Vietnam veterans. *J. Occup. Med.* 33(7):774-779.

Dalager, N.A., H.K. Kang and T.L. Thomas. 1995. Cancer mortality patterns among women who served in the military: the Vietnam experience. *J. Occup. Environ. Med.* 37(3):298-305.

Dalager, N.A., H.K. Kang, V.L. Burt and L. Weatherbee. 1995. Hodgkin's disease and Vietnam service. *Ann. Epidemiol.* 5(5):400-406.

Damassa, D.A., E.R. Smith, B. Tennent and J.M. Davidson. 1977. The relationship between circulating testosterone levels and male sexual behavior in rats. *Horm. Behav.* 8(3):275-286.

Dannan, G.A., D.J. Porubek, S.D. Nelson, D.J. Waxman and F.P. Guengerich. 1986. 17 beta-estradiol 2- and 4-hydroxylation catalyzed by rat hepatic cytochrome P-450: roles of individual forms, inductive effects, developmental patterns, and alterations by gonadectomy and hormone replacement. *Endocrinology*. 118(5):1952-1960.

d'Argy, R., E. Hassoun and L. Dencker. 1984. Teratogenicity of TCDD and the congener 3,3',4,4'-tetrachloroazoxybenzene in sensitive and nonsensitive mouse strains after reciprocal blastocyst transfer. *Toxicol. Lett.* 21(2):197-202.

d'Argy, R., J. Bergman and L. Dencker. 1989. Effects of immunosuppressive chemicals on lymphoid development in foetal thymus organ cultures. *Pharmacol. Toxicol.* 64(1):33-38.

Darnerud, P.O., I. Brandt, E. Klasson-Wehler, A. Bergman, R. d'Argy, L. Dencker and G.O. Sperber. 1986. 3,3',4,4'-tetrachloro[14C]biphenyl in pregnant mice: enrichment of phenol and methyl sulphone metabolites in late gestational fetuses. *Xenobiotica*. 16(4):295-306.

Darnerud, P.O., U. Tornwall, A. Bergman and I. Brandt. 1993. Liver accumulation of 2,3,7,8-tetrachloro-[3H]dibenzofuran in mice: modulation by treatments with polychlorinated biphenyls. *Chem. Biol. Interact.* 89(2-3):89-102.

Davis, D. and S. Safe. 1988. Immunosuppressive activities of polychlorinated dibenzofuran congeners: quantitative structure-activity relationships and interactive effects. *Toxicol. Appl. Pharmacol.* 94(1):141-149.

Davis, D. and S. Safe. 1989. Dose-response immunotoxicities of commercial polychlorinated biphenyls (PCBs) and their interaction with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Lett.* 48(1):35-43.

Davis, D. and S. Safe. 1990. Immunosuppressive activities of polychlorinated biphenyls in C57BL/6N mice: structure-activity relationships as Ah receptor agonists and partial antagonists. *Toxicology*. 63(1):97-111.

Davis, D. and S. Safe. 1991. Halogenated aryl hydrocarbon-induced suppression of the in vitro plaque-forming cell response to sheep red blood cells is not dependent on the Ah receptor. *Immunopharmacology*. 21(3):183-190.

De Jongh, J., F. Wondergem, W. Seinen and M. van den Berg. 1992. Absence of interactions on hepatic retention and 7-ethoxyresorufin-O-deethylation activity after co-administration of 1,2,3,7,8-pentachlorodibenzo-p-dioxin and 2,4,5,2',4',5'-hexachlorobiphenyl. *Toxicology*. 75(1):21-28.

De Jongh, J., F. Wondergem, W. Seinen and M. van den Berg. 1993a. Toxicokinetic interactions between chlorinated aromatic hydrocarbons in the liver of the C57BL/6J mouse: I. Polychlorinated biphenyls (PCBs). *Arch. Toxicol.* 67(7):453-460.

De Jongh, J., R. Nieboer, I. Schrodgers, W. Seinen and M. van den Berg. 1993b. Toxicokinetic mixture interactions between chlorinated aromatic hydrocarbons in the liver of the C57BL/6J mouse: 2. Polychlorinated dibenzo-p-dioxins (PCDDs), dibenzofurans (PCDFs) and biphenyls (PCBs). *Arch. Toxicol.* 67(9):598-604.

De Jongh, J., M. DeVito, R. Nieboer, L. Birnbaum and M. van den Berg. 1995. Induction of cytochrome P450 isoenzymes after toxicokinetic interactions between 2,3,7,8-tetrachlorodibenzo-p-dioxin and 2,2',4,4',5,5'-hexachlorobiphenyl in the liver of the mouse. *Fundam. Appl. Toxicol.* 25(2):264-270.

De Krey, G.K., L. Baecher-Steppan, J.A. Deyo, B. Smith and N.I. Kerkvliet. 1993. Polychlorinated biphenyl-induced immune suppression: castration, but not adrenalectomy or RU 38486 treatment, partially restores the suppressed cytotoxic T lymphocyte response to alloantigen. *J. Pharmacol. Exp. Ther.* 267(1):308-315.

De Krey, G.K., N.C. Hollingshead, N.I. Kerkvliet and B.B. Smith. 1994. Suppression of prolactin and cytotoxic T-lymphocyte activity in PCB-treated mice. *Int. J. Immunopharmacol.* 16(3):251-257.

De Verneuil, H., S. Sassa and A. Kappas. 1983. Effects of polychlorinated biphenyl compounds, 2,3,7,8-tetrachlorodibenzo-p-dioxin, phenobarbital and iron on hepatic uroporphyrinogen decarboxylase. Implications for the pathogenesis of porphyria. *Biochem. J.* 214(1):145-151.

Decad, G.M., L.S. Birnbaum and H.B. Matthews. 1981a. 2,3,7,8-Tetrachlorodibenzofuran tissue distribution and excretion in guinea pig. *Toxicol. Appl. Pharmacol.* 57(2):231-240.

Decad, G.M., L.S. Birnbaum and H.B. Matthews. 1981b. Distribution and excretion of 2,3,7,8-tetrachlorodibenzofuran in C57BL/6J and DBA/2J mice. *Toxicol. Appl. Pharmacol.* 59(3):564-573.

DeCaprio, A.P., D.N. McMartin, P.W. O'Keefe, R. Rej, J.B. Silkworth and L.S. Kaminsky. 1986. Subchronic oral toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the guinea pig: comparisons with a PCB-containing transformer fluid pyrolysate. *Fundam. Appl. Toxicol.* 6(3):454-463.

Degawa, M., S. Tanimura, T. Agatsuma and Y. Hashimoto. 1989. Hepatocarcinogenic heterocyclic aromatic amines that induce cytochrome P-448 isozymes, mainly cytochrome P-448H (P-450IA2), responsible for mutagenic activation of the carcinogens in rat liver. *Carcinogenesis.* 10(6):1119-1122.

Delp, M.D., R.O. Manning, J.V. Bruckner and R.B. Armstrong. 1991. Distribution of cardiac output during diurnal changes of activity in rats. *Am. J. Physiol.* 261(5 Pt 2):H1487-H1493.

- Den Hond, E., H.A. Roels, K. Hoppenbrouwers, T. Nawrot, L. Thijs, C. Vandermeulen, G. Winneke, D. Vanderschueren and J.A. Staessen. 2002. Sexual maturation in relation to polychlorinated aromatic hydrocarbons: Sharpe and Skakkebaek's hypothesis revisited. *Environ. Health Perspect.* 110(8):771-776.
- Dencker, L. and R.M. Pratt. 1981. Association between the presence of the Ah receptor in embryonic murine tissues and sensitivity to TCDD-induced cleft palate. *Teratog. Carcinog. Mutagen.* 1(4):399-406.
- Denes, J., D. Blakey, D. Krewski and J.R. Withey. 1996. Applications of receptor-binding models in toxicology. In: *Toxicology and Risk Assessment. Principles, Methods, and Applications*, A.M. Fan and L.W. Chang, Eds. Marcel-Dekker, New York, NY. pp. 447-472.
- Denis, M., S. Cuthill, A.C. Wikstrom, L. Poellinger and J.A. Gustafsson. 1988. Association of the dioxin receptor with the Mr 90,000 heat shock protein: a structural kinship with the glucocorticoid receptor. *Biochem. Biophys. Res. Co.* 155(2):801-807.
- Denison, M.S., A.B. Okey, J.W. Hamilton, S.E. Bloom and C.F. Wilkinson. 1986. Ah receptor for 2,3,7,8-tetrachlorodibenzo-p-dioxin: ontogeny in chick embryo liver. *J. Biochem. Toxicol.* 1(3):39-49.
- Denison, M.S., J.M. Fisher and J.P. Whitlock, Jr. 1988. The DNA recognition site for the dioxin-Ah receptor complex. Nucleotide sequence and functional analysis. *J. Biol. Chem.* 263(33):17221-17224.
- Denison, M.S., J.M. Fisher and J.P. Whitlock, Jr. 1989. Protein-DNA interactions at recognition sites for the dioxin-Ah receptor complex. *J. Biol. Chem.* 264(28):16478-16482.
- Denison, M.S., D. Phelan and C.J. Elferink. 1998. The AhR signal transduction pathway. In: *Toxicant-Receptor Interactions*, M.S. Denison and W.G. Helferich, Eds. Taylor & Francis, Bristol, PA. pp. 3-33.
- Dertinger, S.D., A.E. Silverstone and T.A. Gasiewicz. 1998. Influence of aromatic hydrocarbon receptor-mediated events on the genotoxicity of cigarette smoke condensate. *Carcinogenesis.* 19(11):2037-2042.
- Dertinger, S.D., D.A. Nazarenko, A.E. Silverstone and T.A. Gasiewicz. 2001. Aryl hydrocarbon receptor signaling plays a significant role in mediating benzo[a]pyrene and cigarette smoke condensate-induced cytogenetic damage in vivo. *Carcinogenesis.* 22(1):171-177.
- Desjardins, C. and R.A. Jones. 1970. Differential sensitivity of rat accessory-sex-tissues to androgen following neonatal castration or androgen treatment. *Anat. Rec.* 166:299.

Devine, O.J., J.M. Karon, W.D. Flanders, L.L. Needham and D.G. Patterson, Jr. 1990. Relationships between concentrations of 2, 3, 7, 8-tetrachlorodibenzo-p-dioxin serum and personal characteristics in U.S. Army Vietnam veterans. *Chemosphere*. 20(6):681-691.

DeVito, M.J. and L.S. Birnbaum. 1995a. Dioxins: model chemicals for assessing receptor-mediated toxicity. *Toxicology*. 102(1-2):115-123.

DeVito, M.J. and L.S. Birnbaum. 1995b. The importance of pharmacokinetics in determining the relative potency of 2,3,7,8-tetrachlorodibenzo-p-dioxin and 2,3,7,8-tetrachlorodibenzofuran. *Fundam. Appl. Toxicol.* 24(1):145-148.

DeVito, M. and L.S. Birnbaum. 1996. The use of body burdens vs. daily dose in comparisons of endo and exodioxins and in assessing human health risks. *Organohalogen Comp.* 29:424-429.

DeVito, M.J., T.H. Umbreit, T. Thomas and M.A. Gallo. 1991. An analogy between the actions of the Ah receptor and the estrogen receptor for use in the biological basis for risk assessment of dioxin. *Banbury Report 35: Biological Basis for Risk Assessment of Dioxin and Related Compounds*. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. pp. 427-440.

DeVito, M.J., T. Thomas, E. Martin, T.H. Umbreit and M.A. Gallo. 1992. Antiestrogenic action of 2,3,7,8-tetrachlorodibenzo-p-dioxin: tissue-specific regulation of estrogen receptor in CD1 mice. *Toxicol. Appl. Pharmacol.* 113(2):284-292.

DeVito, M.J., X. Ma, J.G. Babish, M. Menache and L.S. Birnbaum. 1994. Dose-response relationships in mice following subchronic exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin: CYP1A1, CYP1A2, estrogen receptor, and protein tyrosine phosphorylation. *Toxicol. Appl. Pharmacol.* 124(1):82-90.

DeVito, M.J., L.S. Birnbaum, W.H. Farland and T.A. Gasiewicz. 1995. Comparisons of estimated human body burdens of dioxinlike chemicals and TCDD body burdens in experimentally exposed animals. *Environ. Health Perspect.* 103(9):820-831.

DeVito, M., D.G. Ross, A.P. van Birgelen et al. 1997a. The effects of mixtures of PCDDs, PCDFs and PCBs on hepatic retinyl palmitate concentrations in mice. *Organohalogen Comp.* 34:49-54.

DeVito, M.J., J.J. Diliberto, D.G. Ross, M.G. Menache and L.S. Birnbaum. 1997b. Dose-response relationships for polyhalogenated dioxins and dibenzofurans following subchronic treatment in mice. I. CYP1A1 and CYP1A2 enzyme activity in liver, lung, and skin. *Toxicol. Appl. Pharmacol.* 147(2):267-280.

DeVito, M.J., D.G. Ross, A.E. Dupuy, Jr., J. Ferrario, D. McDaniel and L.S. Birnbaum. 1998. Dose-response relationships for disposition and hepatic sequestration of polyhalogenated dibenzo-p-dioxins, dibenzofurans, and biphenyls following subchronic treatment in mice. *Toxicol. Sci.* 46(2):223-234.

- DeVito, M.J., M.G. Menache, J.J. Diliberto, D.G. Ross and L.S. Birnbaum. 2000. Dose-response relationships for induction of CYP1A1 and CYP1A2 enzyme activity in liver, lung, and skin in female mice following subchronic exposure to polychlorinated biphenyls. *Toxicol. Appl. Pharmacol.* 167(3):157-172.
- Dewanji, A., D.J. Venzon and S.H. Moolgavkar. 1989. A stochastic two-stage model for cancer risk assessment. II. The number and size of premalignant clones. *Risk Anal.* 9(2):179-187.
- Dhar, J.D. and B.S. Setty. 1990. Changes in testis, epididymis and other accessory organs of male rats treated with anandron during sexual maturation. *Endocr. Res.* 16(2):231-239.
- Dienhart, M.K., R.J. Sommer, R.E. Peterson, A.N. Hirshfield and E.K. Silbergeld. 2000. Gestational exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin induces developmental defects in the rat vagina. *Toxicol. Sci.* 56(1):141-149.
- DiGiovanni, J., A. Viaje, D.L. Berry, T.J. Slaga and M.R. Juchau. 1977. Tumor-initiating ability of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and Arochlor 1254 in the two-stage system of mouse skin carcinogenesis. *Bull. Environ. Contam Toxicol.* 18(5):552-557.
- DiGiovanni, J., D.L. Berry, G.L. Gleason, G.S. Kishore and T.J. Slaga. 1980. Time-dependent inhibition by 2,3,7,8-tetrachlorodibenzo-p-dioxin of skin tumorigenesis with polycyclic hydrocarbons. *Cancer Res.* 40(5):1580-1587.
- Diliberto, J.J., L.B. Kedderis and L.S. Birnbaum. 1990. Absorption of 2,3,7,8-tetrabromodibenzo-p-dioxin (TBDD) in male rats. *Toxicologist.* 10:54.
- Diliberto, J.J., L.B. Kedderis, J.A. Jackson and L.S. Birnbaum. 1993a. Effects of dose and routes of exposure on the disposition of 2,3,7,8-[3H]tetrabromodibenzo-p-dioxin (TBDD) in the rat. *Toxicol. Appl. Pharmacol.* 120(2):315-326.
- Diliberto, J.J., P.I. Akubue and J.A. Jackson. 1993b. Dose-dependent tissue distribution of 2,3,7,8-TCDD in mice. *Toxicologist.* 13:195.
- Diliberto, J.J., P.I. Akubue, R.W. Luebke and L.S. Birnbaum. 1995. Dose-response relationships of tissue distribution and induction of CYP1A1 and CYP1A2 enzymatic activities following acute exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in mice. *Toxicol. Appl. Pharmacol.* 130(2):197-208.
- Diliberto, J.J., J.A. Jackson and L.S. Birnbaum. 1996. Comparison of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) disposition following pulmonary, oral, dermal, and parenteral exposures to rats. *Toxicol. Appl. Pharmacol.* 138(1):158-168.

- Diliberto, J.J., D. Burgin and L.S. Birnbaum. 1997. Role of CYP1A2 in hepatic sequestration of dioxin: studies using CYP1A2 knock-out mice. *Biochem. Biophys. Res. Co.* 236(2):431-433.
- Diliberto, J.J., D.E. Burgin and L.S. Birnbaum. 1999. Effects of CYP1A2 on disposition of 2,3,7, 8-tetrachlorodibenzo-p-dioxin, 2,3,4,7,8-pentachlorodibenzofuran, and 2,2',4,4',5,5'-hexachlorobiphenyl in CYP1A2 knockout and parental (C57BL/6N and 129/Sv) strains of mice. *Toxicol. Appl. Pharmacol.* 159(1):52-64.
- Diliberto, J.J., M.J. DeVito, D.G. Ross and L.S. Birnbaum. 2001. Subchronic Exposure of [3H]- 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in female B6C3F1 mice: relationship of steady-state levels to disposition and metabolism. *Toxicol. Sci.* 61(2):241-255.
- Dohr, O., W. Li, S. Donat, C. Vogel and J. Abel. 1996. Aryl hydrocarbon receptor mRNA levels in different tissues of 2,3,7,8-Tetrachlorodibenzo-p-dioxin-responsive and nonresponsive mice. *Adv. Exp. Med. Biol.* 387:447-459.
- Dolwick, K.M., J.V. Schmidt, L.A. Carver, H.I. Swanson and C.A. Bradfield. 1993. Cloning and expression of a human Ah receptor cDNA. *Mol. Pharmacol.* 44(5):911-917.
- Dooley, R.K. and M.P. Holsapple. 1988. Elucidation of cellular targets responsible for tetrachlorodibenzo-p-dioxin (TCDD)-induced suppression of antibody responses: I. The role of the B lymphocyte. *Immunopharmacology.* 16(3):167-180.
- Dooley, R.K., D.L. Morris and M.P. Holsapple. 1990. Elucidation of cellular targets responsible for tetrachlorodibenzo-p-dioxin (TCDD)-induced suppression of antibody responses: II. The role of the T-lymphocyte. *Immunopharmacology.* 19(1):47-58.
- Doss, M., H. Sauer, R. von Tiepermann and A.M. Colombi. 1984. Development of chronic hepatic porphyria (porphyria cutanea tarda) with inherited uroporphyrinogen decarboxylase deficiency under exposure to dioxin. *Int. J. Biochem.* 16(4):369-373.
- Dragan, Y.P., T. Rizvi, Y.H. Xu, J.R. Hully, N. Bawa, H.A. Campbell, R.R. Maronpot and H.C. Pitot. 1991. An initiation-promotion assay in rat liver as a potential complement to the 2-year carcinogenesis bioassay. *Fundam. Appl. Toxicol.* 16(3):525-547.
- Dragan, Y.P., X.H. Xu, T.L. Goldsworthy, H.A. Campbell, R.R. Maronpot and H.C. Pitot. 1992. Characterization of the promotion of altered hepatic foci by 2,3,7,8-tetrachlorodibenzo-p-dioxin in the female rat. *Carcinogenesis.* 13(8):1389-1395.
- Dragani, T.A. and G. Sozzi. 1987. Carcinogenic effects of infantile and long-term 2,3,7,8-tetrachlorodibenzo-p-dioxin treatment in the mouse. *Tumori.* 73(2):99-107.



- Drutel, G., M. Kathmann, A. Heron, J.C. Schwartz and J.M. Arrang. 1996. Cloning and selective expression in brain and kidney of ARNT2 homologous to the Ah receptor nuclear translocator (ARNT). *Biochem. Biophys. Res. Co.* 225(2):333-339.
- Duan, R., W. Porter, I. Samudio, C. Vyhlidal, M. Kladde and S. Safe. 1999. Transcriptional activation of c-fos protooncogene by 17beta-estradiol: mechanism of aryl hydrocarbon receptor-mediated inhibition. *Mol. Endocrinol.* 13(9):1511-1521.
- Duarte-Davidson, R. and K.C. Jones. 1994. Polychlorinated biphenyls (PCBs) in the UK population: estimated intake, exposure and body burden. *Sci. Total Environ.* 151(2):131-152.
- Dunagin, W.G. 1984. Cutaneous signs of systemic toxicity due to dioxins and related chemicals. *J. Am. Acad. Dermatol.* 10(4):688-700.
- Dunlap, D.Y., M.J. Moreno-Aliaga, Z. Wu and F. Matsumura. 1999. Differential toxicities of TCDD in vivo among normal, c-src knockout, geldanamycin- and quercetin-treated mice. *Toxicology.* 135(2-3):95-107.
- Dunn, T.J., R. Lindahl and H.C. Pitot. 1988. Differential gene expression in response to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). Noncoordinate regulation of a TCDD-induced aldehyde dehydrogenase and cytochrome P-450c in the rat. *J. Biol. Chem.* 263(22):10878-10886.
- Dunson, D.B., J.K. Haseman, A.P. van Birgelen, S. Stasiewicz and R.W. Tennant. 2000. Statistical analysis of skin tumor data from Tg.AC mouse bioassays. *Toxicol. Sci.* 55(2):293-302.
- Durham, S.K. and A. Brouwer. 1990. 3,4,3',4'-Tetrachlorobiphenyl distribution and induced effects in the rat adrenal gland. Localization in the zona fasciculata. *Lab. Invest.* 62(2):232-239.
- Durrin, L.K. and J.P. Whitlock, Jr. 1989. 2,3,7,8-Tetrachlorodibenzo-p-dioxin-inducible aryl hydrocarbon receptor-mediated change in CYP1A1 chromatin structure occurs independently of transcription. *Mol. Cell Biol.* 9(12):5733-5737.
- Dwyer, J.H., D. Flesch-Janys, J. Berger et al. 1992. Duration of occupational exposure to dioxin contaminated substances and risk of cancer mortality. In: *Annual Meeting of the Society for Epidemiologic Research.*
- Eadon, G., L. Kaminsky, J. Silkworth, K. Aldous, D. Hilker, P. O'Keefe, R. Smith, J. Gierthy, J. Hawley and N. Kim. 1986. Calculation of 2,3,7,8-TCDD equivalent concentrations of complex environmental contaminant mixtures. *Environ. Health Perspect.* 70:221-227.

- Eastin, W.C., J.K. Haseman, J.F. Mahler and J.R. Bucher. 1998. The National Toxicology Program evaluation of genetically altered mice as predictive models for identifying carcinogens. *Toxicol. Pathol.* 26(4):461-473.
- Eaton, D.L., E.P. Gallagher, T.K. Bammler and K.L. Kunze. 1995. Role of cytochrome P4501A2 in chemical carcinogenesis: implications for human variability in expression and enzyme activity. *Pharmacogenetics.* 5(5):259-274.
- Ebner, K., D.W. Brewster and F. Matsumura. 1988. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on serum insulin and glucose levels in the rabbit. *J. Environ. Sci. Health B.* 23(5):427-438.
- Eckl, P.M., S.A. Meyer, W.R. Whitcombe and R.L. Jirtle. 1988. Phenobarbital reduces EGF receptors and the ability of physiological concentrations of calcium to suppress hepatocyte proliferation. *Carcinogenesis.* 9(3):479-483.
- Egeland, G.M., M.H. Sweeney, M.A. Fingerhut, K.K. Wille, T.M. Schnorr and W.E. Halperin. 1994. Total serum testosterone and gonadotropins in workers exposed to dioxin. *Am. J. Epidemiol.* 139(3):272-281.
- Ehrhardt, A.A. and H.F. Meyer-Bahlburg. 1981. Effects of prenatal sex hormones on gender-related behavior. *Science.* 211(4488):1312-1318.
- Eisenfeld, A.J., R. Aten, M. Weinberger, G. Haselbacher, K. Halpern and L. Krakoff. 1976. Estrogen receptor in the mammalian liver. *Science.* 191(4229):862-865.
- Elder, G.H. and D.M. Sheppard. 1982. Immunoreactive uroporphyrinogen decarboxylase is unchanged in porphyria caused by TCDD and hexachlorobenzene. *Biochem. Biophys. Res. Co.* 109(1):113-120.
- Elder, G.H., J.O. Evans and S.A. Matlin. 1976. The effect of the porphyrogenic compound, hexachlorobenzene, on the activity of hepatic uroporphyrinogen decarboxylase in the rat. *Clin. Sci. Mol. Med.* 51(1):71-80.
- Elder, G.H., G.B. Lee and J.A. Tovey. 1978. Decreased activity of hepatic uroporphyrinogen decarboxylase in sporadic porphyria cutanea tarda. *N. Engl. J. Med.* 299(6):274-278.
- Elferink, C.J. and J.P. Whitlock, Jr. 1990. 2,3,7,8-Tetrachlorodibenzo-p-dioxin-inducible, Ah receptor-mediated bending of enhancer DNA. *J. Biol. Chem.* 265(10):5718-5721.
- Elliott, J.E., R.W. Butler, R.J. Norstrom and P.E. Whitehead. 1989. Environmental contaminants and reproductive success of great blue herons *Ardea herodias* in British Columbia, 1986-1987. *Environ. Pollut.* 59(2):91-114.

- Elovaara, E., H. Savolainen, M.G. Parkki, A. Aitio and H. Vainio. 1977. Neurochemical effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin in Wistar and Gunn rats. *Res. Commun. Chem. Pathol. Pharmacol.* 18(3):487-494.
- El-Sabeawy, F., S. Wang, J. Overstreet, M. Miller, B. Lasley and E. Enan. 1998. Treatment of rats during pubertal development with 2,3,7,8-tetrachlorodibenzo-p-dioxin alters both signaling kinase activities and epidermal growth factor receptor binding in the testis and the motility and acrosomal reaction of sperm. *Toxicol. Appl. Pharmacol.* 150(2):427-442.
- Eltom, S.E., L. Zhang and C.R. Jefcoate. 1999. Regulation of cytochrome P-450 (CYP) 1B1 in mouse Hepa-1 variant cell lines: A possible role for aryl hydrocarbon receptor nuclear translocator (ARNT) as a suppressor of CYP1B1 gene expression. *Mol. Pharmacol.* 55(3):594-604.
- Ema, M., K. Sogawa, N. Watanabe, Y. Chujoh, N. Matsushita, O. Gotoh, Y. Funae and Y. Fujii-Kuriyama. 1992. cDNA cloning and structure of mouse putative Ah receptor. *Biochem. Biophys. Res. Co.* 184(1):246-253.
- Ema, M., N. Ohe, M. Suzuki, J. Mimura, K. Sogawa, S. Ikawa and Y. Fujii-Kuriyama. 1994. Dioxin binding activities of polymorphic forms of mouse and human arylhydrocarbon receptors. *J. Biol. Chem.* 269(44):27337-27343.
- Ema, M., S. Taya, N. Yokotani, K. Sogawa, Y. Matsuda and Y. Fujii-Kuriyama. 1997. A novel bHLH-PAS factor with close sequence similarity to hypoxia-inducible factor 1alpha regulates the VEGF expression and is potentially involved in lung and vascular development. *Proc. Natl. Acad. Sci. U. S. A.* 94(9):4273-4278.
- Emond, C., L.S. Birnbaum and M.J. DeVito. 2004. Physiologically based pharmacokinetic model for developmental exposures to TCDD in the rat. *Toxicol. Sci.* 80(1):115-133.
- Emond, C., J.E. Michalek, L.S. Birnbaum and M.J. DeVito. 2005. Comparison of the use of a physiologically based pharmacokinetic model and a classical pharmacokinetic model for dioxin exposure assessments. *Environ. Health Perspect.* 113(12):1666-1668.
- Emond, C., L.S. Birnbaum and M.J. DeVito. 2006. Use of a physiologically based pharmacokinetic model for rats to study the influence of body fat mass and induction of CYP1A2 on the pharmacokinetics of TCDD. *Environ. Health Perspect.* 114(9):1394-1400.
- Enan, E. and F. Matsumura. 1996. Identification of c-Src as the integral component of the cytosolic Ah receptor complex, transducing the signal of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) through the protein phosphorylation pathway. *Biochem. Pharmacol.* 52(10):1599-1612.

Enan, E., P.C. Liu and F. Matsumura. 1992a. 2,3,7,8-Tetrachlorodibenzo-p-dioxin causes reduction of glucose transporting activities in the plasma membranes of adipose tissue and pancreas from the guinea pig. *J. Biol. Chem.* 267(28):19785-19791.

Enan, E., P.C. Liu and F. Matsumura. 1992b. TCDD (2,3,7,8-tetrachlorodibenzo-p-dioxin) causes reduction in glucose uptake through glucose transporters on the plasma membrane of the guinea pig adipocyte. *J. Environ. Sci. Health B.* 27(5):495-510.

Enan, E., D.Y. Dunlap and F. Matsumura. 1998a. Use of c-Src and c-Fos knockout mice for the studies on the role of c-Src kinase signaling in the expression of toxicity of TCDD. *J. Biochem. Mol. Toxicol.* 12(5):263-274.

Enan, E., F. El-Sabeawy, J. Overstreet, F. Matsumura and B. Lasley. 1998b. Mechanisms of gender-specific TCDD-induced toxicity in guinea pig adipose tissue. *Reprod. Toxicol.* 12(3):357-369.

England, J.F. 1981. Herbicides and coronary ectasia. *Med. J. Aust.* 1(3):140.

Erickson, J.D., J. Mulinare, P.W. McClain, T.G. Fitch, L.M. James, A.B. McClearn and M.J. Adams, Jr. 1984. Vietnam veterans' risks for fathering babies with birth defects. *JAMA.* 252(7):903-912.

Eriksson, M. and M. Karlsson. 1992. Occupational and other environmental factors and multiple myeloma: a population based case-control study. *Br. J. Ind. Med.* 49(2):95-103.

Eriksson, M., L. Hardell, N.O. Berg, T. Moller and O. Axelson. 1981. Soft-tissue sarcomas and exposure to chemical substances: a case-referent study. *Br. J. Ind. Med.* 38(1):27-33.

Eriksson, M., L. Hardell and H.O. Adami. 1990. Exposure to dioxins as a risk factor for soft tissue sarcoma: a population-based case-control study. *J. Natl. Cancer Inst.* 82(6):486-490.

Eriksson, P. 1988. Effects of 3,3',4,4'-tetrachlorobiphenyl in the brain of the neonatal mouse. *Toxicology.* 49(1):43-48.

Eriksson, P. and A. Fredriksson. 1998. Neonatal exposure to 2,2',4,4',5,5'-hexachlorobiphenyl or 3,3',4,4',5,5'-hexachlorobiphenyl causes behavioral derangements in mouse that deteriorate with age. *Organohalogen Comp.* 37:117-119.

Eriksson, P., U. Lundkvist and A. Fredriksson. 1991. Neonatal exposure to 3,3',4,4'-tetrachlorobiphenyl: changes in spontaneous behaviour and cholinergic muscarinic receptors in the adult mouse. *Toxicology.* 69(1):27-34.

Ernst, M., D. Flesch-Janys, I. Morgenstern and A. Manz. 1998. Immune cell functions in industrial workers after exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin: dissociation of antigen-specific T-cell responses in cultures of diluted whole blood and of isolated peripheral blood mononuclear cells. *Environ. Health Perspect.* 106 Suppl 2:701-705.

Eskenazi, B., P. Mocarelli, M. Warner, S. Samuels, P. Vercellini, D. Olive, L. Needham, D. Patterson and P. Brambilla. 1998. Seveso women's health study: a study of the effects of TCDD on reproductive health. *Organohalogen Comp.* 38:219-222.

Eskenazi, B., M. Warner, P. Mocarelli, S. Samuels, L.L. Needham, D.G. Patterson, Jr., S. Lippman, P. Vercellini, P.M. Gerthoux, P. Brambilla and D. Olive. 2002a. Serum dioxin concentrations and menstrual cycle characteristics. *Am. J. Epidemiol.* 156(4):383-392.

Eskenazi, B., P. Mocarelli, M. Warner, S. Samuels, P. Vercellini, D. Olive, L.L. Needham, D.G. Patterson, Jr., P. Brambilla, N. Gavoni, S. Casalini, S. Panazza, W. Turner and P.M. Gerthoux. 2002b. Serum dioxin concentrations and endometriosis: a cohort study in Seveso, Italy. *Environ. Health Perspect.* 110(7):629-634.

Eskenazi, B., P. Mocarelli, M. Warner, L. Needham, D.G. Patterson, Jr., S. Samuels, W. Turner, P.M. Gerthoux and P. Brambilla. 2004. Relationship of serum TCDD concentrations and age at exposure of female residents of Seveso, Italy. *Environ. Health Perspect.* 112(1):22-27.

Esser, C. and M. Welzel. 1993. Ontogenic development of murine fetal thymocytes is accelerated by 3,3',4,4'-tetrachlorobiphenyl. *Int. J. Immunopharmacol.* 15(8):841-852.

Esteller, M., A. Garcia, J.M. Martinez-Palones, J. Xercavins and J. Reventos. 1997. Germ line polymorphisms in cytochrome-P450 1A1 (C4887 CYP1A1) and methylenetetrahydrofolate reductase (MTHFR) genes and endometrial cancer susceptibility. *Carcinogenesis.* 18(12):2307-2311.

Evans, M.V. and M.E. Andersen. 2000. Sensitivity analysis of a physiological model for 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD): assessing the impact of specific model parameters on sequestration in liver and fat in the rat. *Toxicol. Sci.* 54(1):71-80.

Evans, R.G., K.B. Webb, A.P. Knutsen, S.T. Roodman, D.W. Roberts, J.R. Bagby, W.A. Garrett, Jr. and J.S. Andrews, Jr. 1988. A medical follow-up of the health effects of long-term exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Arch. Environ. Health.* 43(4):273-278.

Fachetti, A., A. Formari and M. Montagna. 1980. Distribution of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the tissues of a person exposed to the toxic cloud at Seveso (Italy). *Adv. Mass Spectrom.* 8B:1405-1414.

- Faith, R.E. and J.A. Moore. 1977. Impairment of thymus-dependent immune functions by exposure of the developing immune system to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *J. Toxicol. Environ. Health.* 3(3):451-464.
- Fallon, H., D. Tollerud, N. Breslow, J. Berlin, K. Bolla, G. Colditz, C. Goetz, N. Kaminski, D. Kriebek, N.K. Mottet et al. 1994. The U.S. military and the herbicide program in Vietnam. In: *Veterans and agent orange: health effects of herbicides used in Vietnam.* National Academy Press, Washington, DC. pp. 74-110.
- Fan, F. and K.K. Rozman. 1994. Relationship between acute toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and disturbance of intermediary metabolism in the Long-Evans rat. *Arch. Toxicol.* 69(2):73-78.
- Fan, F., D. Wierda and K.K. Rozman. 1996. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on humoral and cell-mediated immunity in Sprague-Dawley rats. *Toxicology.* 106(1-3):221-228.
- Faqi, A.S., P.R. Dalsenter, H.J. Merker and I. Chahoud. 1998. Reproductive toxicity and tissue concentrations of low doses of 2,3,7,8-tetrachlorodibenzo-p-dioxin in male offspring rats exposed throughout pregnancy and lactation. *Toxicol. Appl. Pharmacol.* 150(2):383-392.
- Fara, G.M. and G. del Corno. 1985. Pregnancy outcome in the Seveso area after TCDD contamination. In: *Prevention of Physical and Mental Congenital Defects, Part B: Epidemiology, Early Detection and Therapy, and Environmental Factors,* M. Marios, Ed. Alan R. Liss, Inc, New York, NY. pp. 279-285.
- Farber, E. 1984. The multistep nature of cancer development. *Cancer Res.* 44(10):4217-4223.
- Favreau, L.V. and C.B. Pickett. 1991. Transcriptional regulation of the rat NAD(P)H:quinone reductase gene. Identification of regulatory elements controlling basal level expression and inducible expression by planar aromatic compounds and phenolic antioxidants. *J. Biol. Chem.* 266(7):4556-4561.
- FDA (Food and Drug Administration). 1990. Carcinogenic risk assessment for dioxins and furans in fish contaminated by bleached-paper mills. Report of the Food and Drug Administration, Quantitative Risk Assessment Committee, Washington, DC.
- Fee, D.C., B.M. Hughes and T.O. Tiernan. 1975. Analytical methods for Herbicide Orange, Vol. II: Determination of origin of USAF stocks. Wright-Patterson Air Force Base, Aerospace Research Laboratories, Dayton, Ohio. 75-00110, Vol. II.
- Fenton, S.E., J.T. Hamm, L.S. Birnbaum and G.L. Youngblood. 2002. Persistent abnormalities in the rat mammary gland following gestational and lactational exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Toxicol. Sci.* 67(1):63-74.

Fernandez, P. and S. Safe. 1992. Growth inhibitory and antimutagenic activity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in T47D human breast cancer cells. *Toxicol. Lett.* 61(2-3):185-197.

Fernandez-Salguero, P., T. Pineau, D.M. Hilbert, T. McPhail, S.S. Lee, S. Kimura, D.W. Nebert, S. Rudikoff, J.M. Ward and F.J. Gonzalez. 1995. Immune system impairment and hepatic fibrosis in mice lacking the dioxin-binding Ah receptor. *Science.* 268(5211):722-726.

Fernandez-Salguero, P.M., D.M. Hilbert, S. Rudikoff, J.M. Ward and F.J. Gonzalez. 1996. Aryl-hydrocarbon receptor-deficient mice are resistant to 2,3,7,8-tetrachlorodibenzo-p-dioxin-induced toxicity. *Toxicol. Appl. Pharmacol.* 140(1):173-179.

Fernandez-Salguero, P.M., J.M. Ward, J.P. Sundberg and F.J. Gonzalez. 1997. Lesions of aryl-hydrocarbon receptor-deficient mice. *Vet. Pathol.* 34(6):605-614.

Fett, M.J., J.R. Nairn, D.M. Cobbin and M.A. Adena. 1987. Mortality among Australian conscripts of the Vietnam conflict era. II. Causes of death. *Am. J. Epidemiol.* 125(5):878-884.

Filippini, G., B. Bordo, P. Crenna, N. Massetto, M. Musicco and R. Boeri. 1981. Relationship between clinical and electrophysiological findings and indicators of heavy exposure to 2,3,7,8-tetrachlorodibenzo-dioxin. *Scand. J. Work Environ. Health.* 7(4):257-262.

Fine, J.S., T.A. Gasiewicz and A.E. Silverstone. 1989. Lymphocyte stem cell alterations following perinatal exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Mol. Pharmacol.* 35(1):18-25.

Fine, J.S., T.A. Gasiewicz, N.C. Fiore and A.E. Silverstone. 1990. Prothymocyte activity is reduced by perinatal 2,3,7,8-tetrachlorodibenzo-p-dioxin exposure. *J. Pharmacol. Exp. Ther.* 255(1):128-132.

Fingerhut, M.A., W.E. Halperin, P.A. Honchar, A.B. Smith, D.H. Groth and W.O. Russell. 1984. An evaluation of reports of dioxin exposure and soft tissue sarcoma pathology among chemical workers in the United States. *Scand. J. Work Environ. Health.* 10(5):299-303.

Fingerhut, M.A., M.H. Sweeney, D.G. Patterson, L.A. Piacitell, J.A. Morris, D.A. Marlow, R.W. Hornung, L.W. Cameron, L.B. Connally, L.L. Needham and W.E. Halperin. 1989. Levels of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the serum of U.S. chemical workers exposed to dioxin contaminated products: interim results. *Chemosphere.* 19(1-6):835-840.

Fingerhut, M.A., W.E. Halperin, D.A. Marlow, L. Piacitelli, P.A. Honchar, M.H. Sweeney, A.L. Greife and P.A. Dill. 1991a. Mortality among U.S. workers employed in the production of chemicals contaminated with 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD). National Institute for Occupational Safety and Health, Cincinnati, OH. NTIS PB 91-125971.

Fingerhut, M.A., W.E. Halperin, D.A. Marlow, L.A. Piacitelli, P.A. Honchar, M.H. Sweeney, A.L. Greife, P.A. Dill, K. Steenland and A.J. Suruda. 1991b. Cancer mortality in workers exposed to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. *N. Engl. J. Med.* 324(4):212-218.

Fingerhut, M.A., K. Steenland, M.H. Sweeney, W.E. Halperin, L.A. Piacitelli and D.A. Marlow. 1992. Old and new reflections on dioxin. *Epidemiology.* 3(1):69-72.

Finley, B., C. Kirman and P. Scott. 1999. Derivation of probabilistic distributions for the WHO mammalian toxic equivalency factors. *Organohalogen Comp.* 42:225-227.

Finley, B.L., K.T. Connor and P.K. Scott. 2003. The use of toxic equivalency factor distributions in probabilistic risk assessments for dioxins, furans, and PCBs. *J. Toxicol. Environ. Health A.* 66(6):533-550.

Firestone, D. 1973. Etiology of chick edema disease. *Environ. Health Perspect.* 5:59-66.

Fitchett, J.E. and E.D. Hay. 1989. Medial edge epithelium transforms to mesenchyme after embryonic palatal shelves fuse. *Dev. Biol.* 131(2):455-474.

Flaws, J.A., R.J. Sommer, E.K. Silbergeld, R.E. Peterson and A.N. Hirshfield. 1997. In utero and lactational exposure to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD) induces genital dysmorphogenesis in the female rat. *Toxicol. Appl. Pharmacol.* 147(2):351-362.

Fleiss, J.L. 1981. *Statistical Methods for Rates and Proportions.* John Wiley & Sons, New York, NY.

Flesch-Janys, D. 1996. Erratum. *Am. J. Epidemiol.* 144(7):716.

Flesch-Janys, D. 1997. Letters to the editor: the first author replies. *Am. J. Epidemiol.* 146(4):362-363.

Flesch-Janys, D., J. Berger et al. 1992. Quantification of exposure to dioxins and furans in a cohort of workers of a herbicide producing plant in Hamburg FRG. *Chemosphere.* 25:1021-1027.

Flesch-Janys, D., J. Berger, P. Gurn, A. Manz, S. Nagel, H. Waltsgott and J.H. Dwyer. 1995. Exposure to polychlorinated dioxins and furans (PCDD/F) and mortality in a cohort of workers from a herbicide-producing plant in Hamburg, Federal Republic of Germany. *Am. J. Epidemiol.* 142(11):1165-1175.



Flesch-Janys, D., H. Becher, P. Gurn, D. Jung, J. Konietzko, A. Manz and O. Papke. 1996. Elimination of polychlorinated dibenzo-p-dioxins and dibenzofurans in occupationally exposed persons. *J. Toxicol. Environ. Health.* 47(4):363-378.

Flesch-Janys, D., H. Becher, J. Berger et al. 1998a. Aspects of dose-response relationships with respect to mortality for neoplastic and cardio-vascular diseases and with respect to the exposure to polychlorinated dibenzo dioxins and furans (PCDD/F) in an occupationally exposed cohort. *Arbeitsmed. Sozialmed. Praventivmed.* 24:54-59.

Flesch-Janys, D., K. Steindorf, P. Gurn and H. Becher. 1998b. Estimation of the cumulated exposure to polychlorinated dibenzo-p-dioxins/furans and standardized mortality ratio analysis of cancer mortality by dose in an occupationally exposed cohort. *Environ. Health Perspect.* 106 Suppl 2:655-662.

Flesch-Janys, D., H. Becher, J. Berger, A. Manz, I. Morgenstern, S. Nagel and K. Steindorf. 1999. Epidemiological investigation of breast cancer incidence in a cohort of female workers with high exposure to PCDD/F and HCH. *Organohalogen Comp.* 44:379-382.

Flodstrom, S. and U.G. Ahlborg. 1991a. Promotion of hepatocarcinogenesis in rats by PCDDs and PCDFs. *Banbury Report 35: Biological Basis for Risk Assessment Dioxins and Related Compounds.* Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. pp. 405-414.

Flodstrom, S. and U.G. Ahlborg. 1991b. Relative tumor promoting activity of some polychlorinated dibenzo-p-dioxin-, dibenzofuran-, and biphyll congeners in female rats. *Chemosphere.* 25(2):169-172.

Flodstrom, S., L. Busk, T. Kronevi and U.G. Ahlborg. 1991. Modulation of 2,3,7,8-tetrachlorodibenzo-p-dioxin and phenobarbital-induced promotion of hepatocarcinogenesis in rats by the type of diet and vitamin A deficiency. *Fundam. Appl. Toxicol.* 16(2):375-391.

Forsberg, G., K. Abrahamsson, P. Sodersten and P. Eneroth. 1985. Effects of restricted maternal contact in neonatal rats on sexual behaviour in the adult. *J. Endocrinol.* 104(3):427-431.

Foster, W.G., M.P. Ruka, P. Gareau, R.A. Foster, E.G. Janzen and J.Z. Yang. 1997. Morphologic characteristics of endometriosis in the mouse model: application to toxicology. *Can. J. Physiol Pharmacol.* 75(10-11):1188-1196.

Fox, A.J. and P.F. Collier. 1976. Low mortality rates in industrial cohort studies due to selection for work and survival in the industry. *Br. J. Prev. Soc. Med.* 30(4):225-230.

Fox, T.R., L.L. Best, S.M. Goldsworthy, J.J. Mills and T.L. Goldsworthy. 1993. Gene expression and cell proliferation in rat liver after 2,3,7,8-tetrachlorodibenzo-p-dioxin exposure. *Cancer Res.* 53(10 Suppl):2265-2271.

- Fraker, P.J. 1980. The antibody-mediated and delayed type hypersensitivity response of mice exposed to polybrominated biphenyls. *Toxicol. Appl. Pharmacol.* 53(1):1-7.
- Frank, G.C., L.S. Webber, R.P. Farris and G.S. Berenson. 1986. Dietary databook: quantifying dietary intakes of infants, children, and adolescents, the Bogalusa heart study, 1973-1983. Nutrition Core and Planning and Analysis Core Component of National Research and Demonstration Center-Arteriosclerosis (NRDC-A), Louisiana State University Medical Center, New Orleans, LA.
- Frazier, D.E., Jr., A.E. Silverstone and T.A. Gasiewicz. 1994. 2,3,7,8-Tetrachlorodibenzo-p-dioxin-induced thymic atrophy and lymphocyte stem cell alterations by mechanisms independent of the estrogen receptor. *Biochem. Pharmacol.* 47(11):2039-2048.
- Fries, G.F. and G.S. Marrow. 1975. Retention and excretion of 2,3,7,8-tetrachlorodibenzo-p-dioxin by rats. *J. Agric. Food Chem.* 23(2):265-269.
- Fujii-Kuriyama, Y., M. Ema, J. Mimura, N. Matsushita and K. Sogawa. 1995. Polymorphic forms of the Ah receptor and induction of the CYP1A1 gene. *Pharmacogenetics.* 5 Spec No:S149-S153.
- Funatsu, I., F. Yamashi, T. Yosikane, T. Funatsu, Y. Ito and S. Tsugawa. 1971. A chlorobiphenyl induced fetopathy. *Fukuoka Igaku Zasshi.* 62:139-149.
- Fürst, P., H.A. Meemken and W. Groebel. 1986. Determination of polychlorinated dibenzodioxins and dibenzofurans in human milk. *Chemosphere.* 15(9-12):1977-1980.
- Fürst, P., C. Kruger, H.A. Meemken and W. Groebel. 1989. PCDD and PCDF levels in human milk—dependence on the period of lactation. *Chemosphere.* 18(1-6):439-444.
- Fürst, P., C. Fürst and K. Wilmers. 1991. Body burden with PCDD and PCDF from food, M. Gallo, R. Scheuplein and K. van der Heijden, Eds. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. pp. 133-142.
- Fürst, P., C. Fürst and K. Wilmers. 1994. Human milk as a bioindicator for body burden of PCDDs, PCDFs, organochlorine pesticides, and PCBs. *Environ. Health Perspect.* 102(Suppl. 1):187-193.
- Gaido, K.W., S.C. Maness, L.S. Leonard and W.F. Greenlee. 1992. 2,3,7,8-Tetrachlorodibenzo-p-dioxin-dependent regulation of transforming growth factors-alpha and -beta 2 expression in a human keratinocyte cell line involves both transcriptional and post-transcriptional control. *J. Biol. Chem.* 267(34):24591-24595.

Gallo, M.A., E.J. Hesse, G.J. Macdonald and T.H. Umbreit. 1986. Interactive effects of estradiol and 2,3,7,8-tetrachlorodibenzo-p-dioxin on hepatic cytochrome P-450 and mouse uterus. *Toxicol. Lett.* 32(1-2):123-132.

Gallo, M.A., M.S. Rahman, J.L. Zatz and R.J. Meeker. 1992. In vitro dermal uptake of 2,3,7,8-TCDD in hairless mouse and human skin from laboratory-contaminated soils. *Toxicologist.* 12:80.

Gao, X., D.S. Son, P.F. Terranova and K.K. Rozman. 1999. Toxic equivalency factors of polychlorinated dibenzo-p-dioxins in an ovulation model: validation of the toxic equivalency concept for one aspect of endocrine disruption. *Toxicol. Appl. Pharmacol.* 157(2):107-116.

Gasiewicz, T.A. 1983. Receptors for 2,3,7,8-tetrachlorodibenzo-*p*-dioxin: their inter- and intra-species distribution and relationship to the toxicity of this compound. In: Thirteenth Annual Conference on Environmental Toxicology. Air Force Aerospace Medical Research Laboratory, Ohio. pp. 250-269.

Gasiewicz, T.A. 1997. Dioxins and the Ah receptor: probes to uncover processes in neuroendocrine development. *Neurotoxicology.* 18(2):393-413.

Gasiewicz, T.A. and R.A. Neal. 1979. 2,3,7,8-Tetrachlorodibenzo-p-dioxin tissue distribution, excretion, and effects on clinical chemical parameters in guinea pigs. *Toxicol. Appl. Pharmacol.* 51(2):329-339.

Gasiewicz, T.A. and G. Rucci. 1984. Cytosolic receptor for 2,3,7,8-tetrachlorodibenzo-p-dioxin. Evidence for a homologous nature among various mammalian species. *Mol. Pharmacol.* 26(1):90-98.

Gasiewicz, T.A., M.A. Holscher and R.A. Neal. 1980. The effect of total parenteral nutrition on the toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the rat. *Toxicol. Appl. Pharmacol.* 54(3):469-488.

Gasiewicz, T.A., J.R. Olson, L.E. Geiger and R.A. Neal. 1983a. Absorption, distribution and metabolism of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in experimental animals. In: Human and Environmental Risks of Chlorinated Dioxins and Related Compounds, R.E. Tucker, A.L. Young and A.P. Gray, Eds. Plenum Press, New York, NY. pp. 495-525.

Gasiewicz, T.A., L.E. Geiger, G. Rucci and R.A. Neal. 1983b. Distribution, excretion, and metabolism of 2,3,7,8-tetrachlorodibenzo-p-dioxin in C57BL/6J, DBA/2J, and B6D2F1/J mice. *Drug Metab Dispos.* 11(5):397-403.

Gasiewicz, T.A., G. Rucci, E.C. Henry and R.B. Baggs. 1986. Changes in hamster hepatic cytochrome P-450, ethoxycoumarin O-deethylase, and reduced NAD(P):menadione oxidoreductase following treatment with 2,3,7,8-tetrachlorodibenzo-p-dioxin. Partial dissociation of temporal and dose-response relationships from elicited toxicity. *Biochem. Pharmacol.* 35(16):2737-2742.

Gaylor, D.W. and Q. Zheng. 1996. Risk assessment of nongenotoxic carcinogens based upon cell proliferation/death rates in rodents. *Risk Anal.* 16(2):221-225.

Gehrs, B.C. and R.J. Smialowicz. 1999. Persistent suppression of delayed-type hypersensitivity in adult F344 rats after perinatal exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicology.* 134(1):79-88.

Gehrs, B.C., M.M. Riddle, W.C. Williams and R.J. Smialowicz. 1997. Alterations in the developing immune system of the F344 rat after perinatal exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin: II. Effects on the pup and the adult. *Toxicology.* 122(3):229-240.

Gentry, P.R., T.R. Covington and H.J. Clewell, III. 2003. Evaluation of the potential impact of pharmacokinetic differences on tissue dosimetry in offspring during pregnancy and lactation. *Regul. Toxicol. Pharmacol.* 38(1):1-16.

Georgii, S., G. Bachour, I. Elmadfa and H. Brunn. 1995. PCB congeners in human milk in Germany from 1984/85 and 1990/91. *Bull. Environ. Contam Toxicol.* 54(4):541-545.

Gerhard, I. and B. Runnebaum. 1992. [The limits of hormone substitution in pollutant exposure and fertility disorders]. *Zentralbl Gynakol.* 114(12):593-602.

Gerlowski, L.E. and R.K. Jain. 1983. Physiologically based pharmacokinetic modeling: principles and applications. *J. Pharm. Sci.* 72(10):1103-1127.

Geusau, A., E. Tschachler, M. Meixner, S. Sandermann, O. Papke, C. Wolf, E. Valic, G. Stingl and M. McLachlan. 1999. Olestra increases faecal excretion of 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Lancet.* 354(9186):1266-1267.

Geusau, A., S. Schmaldienst, K. Derfler, O. Papke and K. Abraham. 2002. Severe 2,3,7,8-tetrachlorodibenzo- p-dioxin (TCDD) intoxication: kinetics and trials to enhance elimination in two patients. *Arch. Toxicol.* 76(5-6):316-325.

Geyer, H.J., I. Scheunert, J.G. Filser and F. Korte. 1986. Bioconcentration potential (BCP) of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (2,3,7,8-TCDD) in terrestrial organisms including humans. *Chemosphere.* 15(9-12):1495-1502.

Geyer, H.J., I. Scheunert, K. Rapp, A. Kettrup, F. Korte, H. Greim and K. Rozman. 1990. Correlation between acute toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and total body fat content in mammals. *Toxicology.* 65(1-2):97-107.

Geyer, H.J., K.W. Schramm, I. Scheunert, K. Schughart, J. Buters, W. Wurst, H. Greim, R. Kluge, C.E. Steinberg, A. Kettrup, B. Madhukar, J.R. Olson and M.A. Gallo. 1997. Considerations on genetic and environmental factors that contribute to resistance or sensitivity of mammals including humans to toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and related compounds. Part 1: Genetic factors affecting the toxicity of TCDD. *Ecotoxicol. Environ. Saf.* 36(3):213-230.

- Ghafoorunissa. 1980. Undernutrition and fertility of male rats. *J. Reprod. Fertil.* 59(2):317-320.
- Ghezzi, I., P. Cannatelli, G. Assennato, F. Merlo, P. Mocarelli, P. Brambilla and F. Sicurello. 1982. Potential 2,3,7,8-tetrachlorodibenzo-p-dioxin exposure of Seveso decontamination workers: a controlled prospective study. *Scand. J. Work Environ. Health.* 8 Suppl 1:176-179.
- Giavini, E., M. Prati and C. Vismara. 1982a. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin administered to pregnant rats during the preimplantation period. *Environ. Res.* 29(1):185-189.
- Giavini, E., M. Prati and C. Vismara. 1982b. Rabbit teratology study with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Environ. Res.* 27(1):74-78.
- Giavini, E., M. Prati and C. Vismara. 1983. Embryotoxic effects of 2,3,7,8 tetrachlorodibenzo-p-dioxin administered to female rats before mating. *Environ. Res.* 31(1):105-110.
- Gierthy, J.F. and D. Crane. 1985a. Development of in vitro bioassays for chlorinated dioxins and dibenzofurans. In: *Chlorinated Dioxins and Dibenzofurans in the Total Environment II*, L.H. Keith, C. Rappe and G. Choudhury, Eds. Butterworth Publishers, Boston, MA.
- Gierthy, J.F. and D. Crane. 1985b. In vitro bioassay for dioxinlike activity based on alterations in epithelial cell proliferation and morphology. *Fundam. Appl. Toxicol.* 5(4):754-759.
- Gierthy, J.F. and D.W. Lincoln. 1988. Inhibition of postconfluent focus production in cultures of MCF-7 human breast cancer cells by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Breast Cancer Res. Tr.* 12(2):227-233.
- Gierthy, J.F., D. Crane and G.D. Frenkel. 1984. Application of an in vitro keratinization assay to extracts of soot from a fire in a polychlorinated biphenyl-containing transformer. *Fundam. Appl. Toxicol.* 4(6):1036-1041.
- Gierthy, J.F., D.W. Lincoln, M.B. Gillespie, J.I. Seeger, H.L. Martinez, H.W. Dickerman and S.A. Kumar. 1987. Suppression of estrogen-regulated extracellular tissue plasminogen activator activity of MCF-7 cells by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Cancer Res.* 47(23):6198-6203.
- Gierthy, J.F., D.W. Lincoln, S.J. Kampcik, H.W. Dickerman, H.L. Bradlow, T. Niwa and G.E. Swaneck. 1988. Enhancement of 2- and 16 alpha-estradiol hydroxylation in MCF-7 human breast cancer cells by 2,3,7,8-tetrachlorodibenzo-P-dioxin. *Biochem. Biophys. Res. Co.* 157(2):515-520.

- Gierthy, J.F., J.A. Bennett, L.M. Bradley and D.S. Cutler. 1993. Correlation of in vitro and in vivo growth suppression of MCF-7 human breast cancer by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Cancer Res.* 53(13):3149-3153.
- Giesy, J.P. and K. Kannan. 1998. Dioxin-like and non-dioxin-like toxic effects of polychlorinated biphenyls (PCBs): implications for risk assessment. *Crit Rev. Toxicol.* 28(6):511-569.
- Gilbertson, M. 1989. Effects on fish and wildlife populations. In: *Halogenated Biphenyls, Terphenyls, Naphthalenes, Dibenzodioxins and Related Products*, 2nd ed., R. Kimbrough and A.A. Jensen, Eds. Elsevier Publishers, Amsterdam. pp. 103-127.
- Gillner, M., J. Bergman, C. Cambillau, B. Fernstrom and J.A. Gustafsson. 1985. Interactions of indoles with specific binding sites for 2,3,7,8-tetrachlorodibenzo-p-dioxin in rat liver. *Mol. Pharmacol.* 28(4):357-363.
- Gillner, M., E.B. Brittebo, I. Brandt, P. Soderkvist, L.E. Appelgren and J.A. Gustafsson. 1987. Uptake and specific binding of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the olfactory mucosa of mice and rats. *Cancer Res.* 47(15):4150-4159.
- Gillner, M., J. Bergman, C. Cambillau, M. Alexandersson, B. Fernstrom and J.A. Gustafsson. 1993. Interactions of indolo[3,2-b]carbazoles and related polycyclic aromatic hydrocarbons with specific binding sites for 2,3,7,8-tetrachlorodibenzo-p-dioxin in rat liver. *Mol. Pharmacol.* 44(2):336-345.
- Giri, A.K. 1986. Mutagenic and genotoxic effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin: a review. *Mutat. Res.* 168(3):241-248.
- Gladen, B.C., W.J. Rogan, N.B. Ragan and F.W. Spierto. 1988. Urinary porphyrins in children exposed transplacentally to polyhalogenated aromatics in Taiwan. *Arch. Environ. Health.* 43(1):54-58.
- Glass, A.R., D.C. Herbert and J. Anderson. 1986. Fertility onset, spermatogenesis, and pubertal development in male rats: effect of graded underfeeding. *Pediatr. Res.* 20(11):1161-1167.
- Gogan, F., I.A. Beattie, M. Hery, E. Laplante and D. Kordon. 1980. Effect of neonatal administration of steroids or gonadectomy upon oestradiol-induced luteinizing hormone release in rats of both sexes. *J. Endocrinol.* 85(1):69-74.
- Gogan, F., A. Slama, B. Bizzini-Koutznetzova, F. Dray and C. Kordon. 1981. Importance of perinatal testosterone in sexual differentiation in the male rat. *J. Endocrinol.* 91(1):75-79.
- Goldey, E.S. and K.M. Crofton. 1998. Thyroxine replacement attenuates hypothyroxinemia, hearing loss, and motor deficits following developmental exposure to Aroclor 1254 in rats. *Toxicol. Sci.* 45(1):94-105.

- Goldey, E.S., L.S. Kehn, C. Lau, G.L. Rehnberg and K.M. Crofton. 1995a. Developmental exposure to polychlorinated biphenyls (Aroclor 1254) reduces circulating thyroid hormone concentrations and causes hearing deficits in rats. *Toxicol. Appl. Pharmacol.* 135(1):77-88.
- Goldey, E.S., L.S. Kehn, G.L. Rehnberg and K.M. Crofton. 1995b. Effects of developmental hypothyroidism on auditory and motor function in the rat. *Toxicol. Appl. Pharmacol.* 135(1):67-76.
- Goldman, P.J. 1972. Critically acute chloracne caused by trichlorophenol decomposition products. *Arbeitsmed. Sozialmed. Praventivmed.* 7:12-18.
- Goldstein, J.A. and P. Linko. 1984. Differential induction of two 2,3,7,8-tetrachlorodibenzo-p-dioxin-inducible forms of cytochrome P-450 in extrahepatic versus hepatic tissues. *Mol. Pharmacol.* 25(1):185-191.
- Goldstein, J.A. and P. Linko. 1989. Mechanism of action and structure-activity relationships for the chlorinated dibenzo-*p*-dioxins and related compounds. In: *Halogenated Biphenyls, Terphenyls, Naphthalenes, Dibenzodioxins, and Related Products*, 2nd ed., R.D. Kimbrough and A.A. Jensen, Eds. Elsevier, New York, NY. pp. 239-293.
- Goldstein, J.A., P. Hickman and D.L. Jue. 1974. Experimental hepatic porphyria induced by polychlorinated biphenyls. *Toxicol. Appl. Pharmacol.* 27(2):437-448.
- Goldstein, J.A., P. Hickman, H. Bergman and J.G. Vos. 1973. Hepatic porphyria induced by 2,3,7,8-tetrachlorodibenzo-*p*-dioxin in the mouse. *Res. Commun. Chem. Pathol. Pharmacol.* 6(3):919-928.
- Goldstein, J.A., J.D. McKinney, G.W. Lucier, P. Hickman, H. Bergman and J.A. Moore. 1976. Toxicological assessment of hexachlorobiphenyl isomers and 2,3,7,8-tetrachlorodibenzofuran in chicks. II. Effects on drug metabolism and porphyrin accumulation. *Toxicol. Appl. Pharmacol.* 36(1):81-92.
- Goldstein, J.A., P. Linko and H. Bergman. 1982. Induction of porphyria in the rat by chronic versus acute exposure to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. *Biochem. Pharmacol.* 31(8):1607-1613.
- Goldstein, J.A., F.H. Lin, S.J. Stohs, M. Graham, G. Clarke, L. Birnbaum and G.W. Lucier. 1990. The effects of TCDD on receptors for epidermal growth factor, glucocorticoid, and estrogen in Ah-responsive and-nonresponsive congenic mice and the effects of TCDD on estradiol metabolism in a liver tumor promotion model in female rats. In: *Mouse Liver Carcinogenesis: Mechanisms and Species Comparisons*, D.E. Stevenson, J.A. Popp, J.M. Ward, R.M. McClain, T.J. Slaga and H.C. Pitot, Eds. John Wiley & Sons, New York, NY. pp. 187-202.
- Gonzalez, F.J., P. Fernandez-Salguero, S.S. Lee, T. Pineau and J.M. Ward. 1995. Xenobiotic receptor knockout mice. *Toxicol. Lett.* 82-83:117-121.

- Goodman, D.G. and R.M. Sauer. 1992. Hepatotoxicity and carcinogenicity in female Sprague-Dawley rats treated with 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD): a pathology working group reevaluation. *Regul. Toxicol. Pharmacol.* 15(3):245-252.
- Gordon, C.J. and D.B. Miller. 1998. Thermoregulation in rats exposed perinatally to dioxin: core temperature stability to altered ambient temperature, behavioral thermoregulation, and febrile response to lipopolysaccharide. *J. Toxicol. Environ. Health A.* 54(8):647-662.
- Gordon, C.J., L.E. Gray, Jr., N.A. Monteiro-Riviere and D.B. Miller. 1995. Temperature regulation and metabolism in rats exposed perinatally to dioxin: permanent change in regulated body temperature? *Toxicol. Appl. Pharmacol.* 133(1):172-176.
- Gordon, C.J., Y. Yang and L.E. Gray, Jr. 1996. Autonomic and behavioral thermoregulation in golden hamsters exposed perinatally to dioxin. *Toxicol. Appl. Pharmacol.* 137(1):120-125.
- Gorski, J.R. and K. Rozman. 1987. Dose-response and time course of hypothyroxinemia and hypoinsulinemia and characterization of insulin hypersensitivity in 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)-treated rats. *Toxicology.* 44(3):297-307.
- Gorski, J.R., L.W. Weber and K. Rozman. 1990. Reduced gluconeogenesis in 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)-treated rats. *Arch. Toxicol.* 64(1):66-71.
- Gorski, R.A., J.H. Gordon, J.E. Shryne and A.M. Southam. 1978. Evidence for a morphological sex difference within the medial preoptic area of the rat brain. *Brain Res.* 148(2):333-346.
- Gorski, T., L. Konopka and M. Brodzki. 1984. Persistence of some polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans of pentachlorophenol in human adipose tissue. *Rocz. Panstw. Zakl. Hig.* 35(4):297-301.
- Gottlicher, M., P. Cikryt and F.J. Wiebel. 1990. Inhibition of growth by 2,3,7,8-tetrachlorodibenzo-p-dioxin in 5L rat hepatoma cells is associated with the presence of Ah receptor. *Carcinogenesis.* 11(12):2205-2210.
- Goy, R.W., F.B. Bercovitch and M.C. McBrair. 1988. Behavioral masculinization is independent of genital masculinization in prenatally androgenized female rhesus macaques. *Horm. Behav.* 22(4):552-571.
- Gradin, K., J. McGuire, R.H. Wenger, I. Kvietikova, M.L. Fhitelaw, R. Toftgard, L. Tora, M. Gassmann and L. Poellinger. 1996. Functional interference between hypoxia and dioxin signal transduction pathways: competition for recruitment of the Arnt transcription factor. *Mol. Cell Biol.* 16(10):5221-5231.
- Graham, M., F.D. Hileman, R.G. Orth, J.M. Wendling and J.D. Wilson. 1986. Chlorocarbons in adipose tissue from a Missouri population. *Chemosphere.* 15(9-12):1595-1600.



Graham, M.J., G.W. Lucier, P. Linko, R.R. Maronpot and J.A. Goldstein. 1988. Increases in cytochrome P-450 mediated 17 beta-estradiol 2-hydroxylase activity in rat liver microsomes after both acute administration and subchronic administration of 2,3,7,8-tetrachlorodibenzo-p-dioxin in a two-stage hepatocarcinogenesis model. *Carcinogenesis*. 9(11):1935-1941.

Grassman, J.A., S.A. Masten, N.J. Walker and G.W. Lucier. 1998. Animal models of human response to dioxins. *Environ. Health Perspect.* 106 Suppl 2:761-775.

Gray, L.E., Jr. and J.S. Ostby. 1995. In utero 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) alters reproductive morphology and function in female rat offspring. *Toxicol. Appl. Pharmacol.* 133(2):285-294.

Gray, L.E., J.S. Ostby, W.R. Kelce, R. Marshall and J.J. Diliberto. 1993. Perinatal TCDD exposure alters sex differentiation in both female and male LE hooded rats. In: *Dioxin '93, 13th International Symposium on Chlorinated Dioxins and Related Compounds, Vienna.* pp. 337-339.

Gray, L.E., Jr., J. Ostby, C. Wolf et al. 1995a. Functional developmental toxicity of low doses of 2,3,7,8-tetrachlorodibenzo-p-dioxin and a dioxin-like PCB (169) in Long Evans rats and Syrian hamsters: reproductive, behavioral and thermoregulatory alterations. *Organohalogen Comp.* 25:33-38.

Gray, L.E., Jr., W.R. Kelce, E. Monosson, J.S. Ostby and L.S. Birnbaum. 1995b. Exposure to TCDD during development permanently alters reproductive function in male Long Evans rats and hamsters: reduced ejaculated and epididymal sperm numbers and sex accessory gland weights in offspring with normal androgenic status. *Toxicol. Appl. Pharmacol.* 131(1):108-118.

Gray, L.E., C. Wolf, P. Mann and J.S. Ostby. 1997a. In utero exposure to low doses of 2,3,7,8-tetrachlorodibenzo-p-dioxin alters reproductive development of female Long Evans hooded rat offspring. *Toxicol. Appl. Pharmacol.* 146(2):237-244.

Gray, L.E., J.S. Ostby and W.R. Kelce. 1997b. A dose-response analysis of the reproductive effects of a single gestational dose of 2,3,7,8-tetrachlorodibenzo-p-dioxin in male Long Evans Hooded rat offspring. *Toxicol. Appl. Pharmacol.* 146(1):11-20.

Gray, L.E., Jr., C. Wolf, C. Lambricht, P. Mann, M. Price, R.L. Cooper and J. Ostby. 1999. Administration of potentially antiandrogenic pesticides (procymidone, linuron, iprodione, chlozolate, p,p'-DDE, and ketoconazole) and toxic substances (dibutyl- and diethylhexyl phthalate, PCB 169, and ethane dimethane sulphonate) during sexual differentiation produces diverse profiles of reproductive malformations in the male rat. *Toxicol. Ind. Health.* 15(1-2):94-118.

Greene, R.M. and R.M. Pratt. 1976. Developmental aspects of secondary palate formation. *J. Embryol. Exp. Morphol.* 36(2):225-245.

- Greenlee, W.F., K.M. Dold, R.D. Irons and R. Osborne. 1985. Evidence for direct action of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on thymic epithelium. *Toxicol. Appl. Pharmacol.* 79(1):112-120.
- Greenlee, W.F., M.E. Andersen and G.W. Lucier. 1991. A perspective on biologically-based approaches to dioxin risk assessment. *Risk Anal.* 11(4):565-568.
- Greenwald, P., B. Kovasznay, D.N. Collins and G. Therriault. 1984. Sarcomas of soft tissues after Vietnam service. *J. Natl. Cancer Inst.* 73(5):1107-1109.
- Greig, J.B. and F. De Matteis. 1973. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on drug metabolism and hepatic microsomes of rats and mice. *Environ. Health Perspect.* 5:211-219.
- Greig, J.B., G. Jones, W.H. Butler and J.M. Barnes. 1973. Toxic effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Food Cosmet. Toxicol.* 11(4):585-595.
- Gross, M.L., J.O. Lay, Jr., P.A. Lyon, D. Lippstreu, N. Kangas, R.L. Harless, S.E. Taylor and A.E. Dupuy, Jr. 1984. 2,3,7,8-Tetrachlorodibenzo-p-dioxin levels in adipose tissue of Vietnam veterans. *Environ. Res.* 33(1):261-268.
- Grubbs, W.D., M.B. Lustik, A.S. Brockman, S.C. Henderson, F.R. Burnett, R.G. Land, D.J. Osborn, V.K. Rocconi, M.E. Schieber, D.E. Williams, W.H. Wolfe, J.E. Michalek, J.C. Miner and G.L. Henriksen. 1995a. An epidemiologic investigation of health effects in Air Force personnel following exposure to herbicides. Vol III: 1992 followup examination results. National Technical Information Service, Springfield, VA. NTIS AD A-304-306-AD A-304-316.
- Grubbs, W.D., M.B. Lustik, A.S. Brockman, S.C. Henderson, F.R. Burnett, L.G. Land, D.J. Osborne, V.K. Rocconi, M.E. Schrieber, D.E. Williams, W.H. Wolfe, J.E. Michalek, J.C. Miner, G.L. Henriksen and J.A. Swaby. 1995b. Air Force health study: an epidemiologic investigation of health effects in Air Force personnel following exposure to herbicides. Epidemiology Research Division, Armstrong Laboratory, Human Systems Division (AFSC), Brooks Air Force Base, Texas. SAIC Project No.: 01-0813-02-3005.
- Grubbs, W.D., W.H. Wolfe, J.E. Michalek, D.E. Williams, M.B. Lustik and A.S. Brockman. 1995c. Air Force health study: an epidemiologic investigation of health effects in Air Force personnel following exposure to herbicides 1992 followup examination. Armstrong Laboratory, Epidemiologic Research Division, Brooks Air Force Base, TX. AL-TR-920107.
- Gu, Y.Z., J.B. Hogenesch and C.A. Bradfield. 2000. The PAS superfamily: sensors of environmental and developmental signals. *Annu. Rev. Pharmacol. Toxicol.* 40:519-561.
- Guengerich, F.P. 1988. Roles of cytochrome P-450 enzymes in chemical carcinogenesis and cancer chemotherapy. *Cancer Res.* 48(11):2946-2954.

- Guo, Y.L., C.J. Lin, W.J. Yao, J.J. Ryan and C.C. Hsu. 1994a. Musculoskeletal changes in children prenatally exposed to polychlorinated biphenyls and related compounds (Yu-Cheng children). *J. Toxicol. Environ. Health.* 41(1):83-93.
- Guo, Y.L., T.J. Lai, S.H. Ju, Y.C. Chen and C.C. Hsu. 1994b. Sexual developments and biological findings in Yu-Cheng children. *Organohalogen Comp.* 14:235-238.
- Guo, Y.L., Y.C. Chen, M.L. Yu and C.C. Hsu. 1994c. Early development of Yu-Cheng children born seven to twelve years after the Taiwan PCB outbreak. *Chemosphere.* 29(9-11):2395-2404.
- Guo, Y.L., G.H. Lambert and C.C. Hsu. 1995a. Growth abnormalities in the population exposed in utero and early postnatally to polychlorinated biphenyls and dibenzofurans. *Environ. Health Perspect.* 103 Suppl 6:117-122.
- Guo, Y.L., T.J. Lai, S.J. Chen and C.C. Hsu. 1995b. Gender-related decrease in Raven's progressive matrices scores in children prenatally exposed to polychlorinated biphenyls and related contaminants. *Bull. Environ. Contam Toxicol.* 55(1):8-13.
- Gupta, B.N., J.G. Vos, J.A. Moore, J.G. Zinkl and B.C. Bullock. 1973. Pathologic effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin in laboratory animals. *Environ. Health Perspect.* 5:125-140.
- Gurn, P., H. Beck, D. Flesch-Janys, D. Jung, J. Konietzko, A. Manz, W. Mathar and O. Papke. 1995. Partitioning of PCDD/Fs between blood and adipose tissue in 9 former chemical workers. *Organohalogen Comp.* 26:233-238.
- Guzelian, P.S. 1985. Clinical evaluation of liver structure and function in humans exposed to halogenated hydrocarbons. *Environ. Health Perspect.* 60:159-164.
- Haag-Gronlund, M., L. Warngard, S. Flodstrom, G. Scheu, T. Kronevi, U.G. Ahlborg and R. Fransson-Steen. 1997. Promotion of altered hepatic foci by 2,3',4,4',5-pentachlorobiphenyl in Sprague-Dawley female rats. *Fundam. Appl. Toxicol.* 35(1):120-130.
- Haake, J.M., S. Safe, K. Mayura and T.D. Phillips. 1987. Aroclor 1254 as an antagonist of the teratogenicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Lett.* 38(3):299-306.
- Hagenmaier, H., T. Wiesmuller, G. Golor, R. Krowke, H. Helge and D. Neubert. 1990. Transfer of various polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDDs and PCDFs) via placenta and through milk in a marmoset monkey. *Arch. Toxicol.* 64(8):601-615.
- Hahn, M.E. 1998. The aryl hydrocarbon receptor: a comparative perspective. *Comp. Biochem. Physiol. C.* 121(1-3):23-53.

- Hahn, M.E. and S.I. Karchner. 1995. Evolutionary conservation of the vertebrate Ah (dioxin) receptor: amplification and sequencing of the PAS domain of a teleost Ah receptor cDNA. *Biochem. J.* 310 ( Pt 2):383-387.
- Hahn, M.E., T.A. Gasiewicz, P. Linko and J.A. Goldstein. 1988. The role of the Ah locus in hexachlorobenzene-induced porphyria. *Studies in congeneric C57BL/6J mice. Biochem. J.* 254(1):245-254.
- Hajdu, S.I. 1981. Soft tissue sarcomas: classification and natural history. *CA Cancer J. Clin.* 31(5):271-280.
- Hakansson, H. and A. Hanberg. 1989. The distribution of [<sup>14</sup>C]-2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and its effect on the vitamin A content in parenchymal and stellate cells of rat liver. *J. Nutr.* 119(4):573-580.
- Hakansson, H., H. Hanberg and U.G. Ahlborg. 1989a. The distribution of <sup>14</sup>C 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) between parenchymal and non-parenchymal rat hepatic cells and its effect on the vitamin A content of these cells. *Chemosphere.* 18(1-6):307-312.
- Hakansson, H., L. Johansson, E. Manzoor and U.G. Ahlborg. 1989.b 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)-induced alterations in the vitamin A homeostasis and in the 7-ethoxyresorufin O-deethylase (EROD)-activity in SD rats and Hartley guinea pigs. *Chemosphere.* 18(1-6):299-305.
- Hakansson, H., L. Johansson, U.G. Ahlborg, R.W. Moore and R.E. Peterson. 1989c. Hepatic vitamin A storage in relation to paired feed restriction and TCDD-treatment. *Chemosphere.* 19(1-6):919-920.
- Hakansson, H., U.G. Ahlborg, L. Johansson and H. Poiger. 1990. Vitamin A storage in rats subchronically exposed to PCDDs/PCDFs. *Chemosphere.* 20(7-9):1147-1150.
- Hakansson, H., L. Johansson, E. Manzoor and U.G. Ahlborg. 1991. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on the vitamin A status of Hartley guinea pigs, Sprague-Dawley rats, C57Bl/6 mice, DBA/2 mice, and Golden Syrian hamsters. *J. Nutr. Sci. Vitaminol. (Tokyo).* 37(2):117-138.
- Hakansson, H., L. Johansson, E. Manzoor and U.G. Ahlborg. 1994. Effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin on the hepatic 7-ethoxyresorufin O-deethylase activity in four rodent species. *Eur. J. Pharmacol.* 270(4):279-284.
- Hall, P.F. 1988. Testicular steroid synthesis: organization and regulation. In: *The Physiology of Reproduction*, E. Knobil, J.D. Neil et al., Eds. Raven Press, New York, NY. pp. 975-998.

- Halperin, W., R. Vogt, M.H. Sweeney, G. Shopp, M. Fingerhut and M. Petersen. 1998. Immunological markers among workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Occup. Environ. Med.* 55(11):742-749.
- Halperin, W., W. Kalow, M.H. Sweeney, B.K. Tang, M. Fingerhut, B. Timpkins and K. Wille. 1995. Induction of P-450 in workers exposed to dioxin. *Occup. Environ. Med.* 52(2):86-91.
- Hamm, J.T., B.R. Sparrow, D. Wolf and L.S. Birnbaum. 2000. In utero and lactational exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin alters postnatal development of seminal vesicle epithelium. *Toxicol. Sci.* 54(2):424-430.
- Hamm, J.T., C.Y. Chen and L.S. Birnbaum. 2003. A mixture of dioxins, furans, and non-ortho PCBs based upon consensus toxic equivalency factors produces dioxin-like reproductive effects. *Toxicol. Sci.* 74(1):182-191.
- Hankinson, O. 1995. The aryl hydrocarbon receptor complex. *Annu. Rev. Pharmacol. Toxicol.* 35:307-340.
- Hanneman, W.H., M.E. Legare, E. Tiffany-Castiglioni and S.H. Safe. 1996. The need for cellular, biochemical, and mechanistic studies. *Neurotoxicol. Teratol.* 18(3):247-250.
- Hansen, E.S., H. Hasle and F. Lander. 1992. A cohort study on cancer incidence among Danish gardeners. *Am. J. Ind. Med.* 21(5):651-660.
- Hanson, C.D. and R.J. Smialowicz. 1994. Evaluation of the effect of low-level 2,3,7,8-tetrachlorodibenzo-p-dioxin exposure on cell mediated immunity. *Toxicology.* 88(1-3):213-224.
- Hany, J., H. Lilienthal, A. Roth-Harer, G. Ostendorp, B. Heinzow and G. Winneke. 1999. Behavioral effects following single and combined maternal exposure to PCB 77 (3,4,3',4'-tetrachlorobiphenyl) and PCB 47 (2,4,2',4'-tetrachlorobiphenyl) in rats. *Neurotoxicol. Teratol.* 21(2):147-156.
- Haraguchi, K., H. Kuroki and Y. Masuda. 1986. Capillary gas chromatographic analysis of methylsulphone metabolites of polychlorinated biphenyls retained in human tissues. *J. Chromatogr.* 361:239-252.
- Haraguchi, K., H. Kuroki and Y. Masuda. 1989. Polychlorinated biphenyl methylsulfone congeners in human tissues: identification of methylsulfonyl dichlorobiphenyls. *Chemosphere.* 18(1-6):477-484.
- Hardell, L. 1977. STSs and exposure to phenoxyacetic acids--a clinical observation. *Lakartidningen.* 74:2753.

- Hardell, L. 1981a. Epidemiological studies on soft-tissue sarcoma and malignant lymphoma and their relation to phenoxy acid or chlorophenol exposure, Umeå University Medical Dissertations.
- Hardell, L. 1981b. Relation of soft-tissue sarcoma, malignant lymphoma and colon cancer to phenoxy acids, chlorophenols and other agents. *Scand. J. Work Environ. Health.* 7(2):119-130.
- Hardell, L. 1993. Letter to David Bayliss. Memorandum to D.Bayliss.
- Hardell, L. 1995. Correspondence with D. Bayliss. Memorandum to D.Bayliss.
- Hardell, L. and M. Eriksson. 1988. The association between soft tissue sarcomas and exposure to phenoxyacetic acids. A new case-referent study. *Cancer.* 62(3):652-656.
- Hardell, L. and A. Sandstrom. 1979. Case-control study: soft-tissue sarcomas and exposure to phenoxyacetic acids or chlorophenols. *Br. J. Cancer.* 39(6):711-717.
- Hardell, L., M. Eriksson, P. Lenner and E. Lundgren. 1981. Malignant lymphoma and exposure to chemicals, especially organic solvents, chlorophenols and phenoxy acids: a case-control study. *Br. J. Cancer.* 43(2):169-176.
- Hardell, L., M. Eriksson, O. Axelson and M. Fredrikson. 1991. Letter to the editor: Dioxin and mortality from cancer. *N. Engl. J. Med.* 324:1810-1811.
- Hardell, L., M. Fredrikson, M. Eriksson, M. Hansson and C. Rappe. 1995. Adipose tissue concentrations of dioxins and dibenzofurans in patients with malignant lymphoproliferative diseases and in patients without a malignant disease. *Eur. J. Cancer Prev.* 4(3):225-229.
- Hardy, D.F. and J.F. DeBold. 1972. Effects of coital stimulation upon behavior of the female rat. *J. Comp Physiol Psychol.* 78(3):400-408.
- Harper, N., K. Connor, M. Steinberg and S. Safe. 1994. An enzyme-linked immunosorbent assay (ELISA) specific for antibodies to TNP-LPS detects alterations in serum immunoglobulins and isotype switching in C57BL/6 and DBA/2 mice exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin and related compounds. *Toxicology.* 92(1-3):155-167.
- Harper, N., K. Connor, M. Steinberg and S. Safe. 1995. Immunosuppressive activity of polychlorinated biphenyl mixtures and congeners: nonadditive (antagonistic) interactions. *Fundam. Appl. Toxicol.* 27(1):131-139.

- Harper, P.A., C.L. Golas and A.B. Okey. 1991. Ah receptor in mice genetically "nonresponsive" for cytochrome P4501A1 induction: cytosolic Ah receptor, transformation to the nuclear binding state, and induction of aryl hydrocarbon hydroxylase by halogenated and nonhalogenated aromatic hydrocarbons in embryonic tissues and cells. *Mol. Pharmacol.* 40(5):818-826.
- Harper, P.A., J.V. Giannone, A.B. Okey and M.S. Denison. 1992. In vitro transformation of the human Ah receptor and its binding to a dioxin response element. *Mol. Pharmacol.* 42(4):603-612.
- Harrad, S.J. and K.C. Jones. 1992. A source inventory and budget for chlorinated dioxins and furans in the United Kingdom environment. *Sci. Total Environ.* 126(1-2):89-107.
- Harris, M.W., J.A. Moore, J.G. Vos and B.N. Gupta. 1973. General biological effects of TCDD in laboratory animals. *Environ. Health Perspect.* 5:101-109.
- Harris, M., J. Piskorska-Pliszczyńska, T. Zacharewski, M. Romkes and S. Safe. 1989. Structure-dependent induction of aryl hydrocarbon hydroxylase in human breast cancer cell lines and characterization of the Ah receptor. *Cancer Res.* 49(16):4531-4535.
- Harris, M., T. Zacharewski and S. Safe. 1990a. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin and related compounds on the occupied nuclear estrogen receptor in MCF-7 human breast cancer cells. *Cancer Res.* 50(12):3579-3584.
- Harris, M., T. Zacharewski, J. Piskorska-Pliszczyńska, R. Rosengren and S. Safe. 1990b. Structure-dependent induction of aryl hydrocarbon hydroxylase activity in C57BL/6 mice by 2,3,7,8-tetrachlorodibenzo-p-dioxin and related congeners: mechanistic studies. *Toxicol. Appl. Pharmacol.* 105(2):243-253.
- Harris, M., T. Zacharewski and S. Safe. 1993. Comparative potencies of Aroclors 1232, 1242, 1248, 1254, and 1260 in male Wistar rats--assessment of the toxic equivalency factor (TEF) approach for polychlorinated biphenyls (PCBs). *Fundam. Appl. Toxicol.* 20(4):456-463.
- Hart, B.L. 1972. Manipulation of neonatal androgen: effects on sexual responses and penile development in male rats. *Physiol Behav.* 8(5):841-845.
- Harvey, M., M.J. McArthur, C.A. Montgomery, Jr., J.S. Butel, A. Bradley and L.A. Donehower. 1993. Spontaneous and carcinogen-induced tumorigenesis in p53-deficient mice. *Nat. Genet.* 5(3):225-229.
- Haseman, J.K. and F.M. Johnson. 1996. Analysis of National Toxicology Program rodent bioassay data for anticarcinogenic effects. *Mutat. Res.* 350(1):131-141.
- Haseman, J.K., J. Huff and G.A. Boorman. 1984. Use of historical control data in carcinogenicity studies in rodents. *Toxicol. Pathol.* 12(2):126-135.

Hashiguchi, I., Y. Toriya, H. Anan, K. Maeda, A. Akamine, M. Aono, H. Fukuyama and H. Okumura. 1995. [An epidemiologic examination on the prevalence of the periodontal diseases and oral pigmentation in Yusho patients]. *Fukuoka Igaku Zasshi*. 86(5):256-260.

Hassoun, E., R. d'Argy, L. Dencker and G. Sundstrom. 1984a. Teratological studies on the TCDD congener 3,3',4,4'-tetrachloroazoxybenzene in sensitive and nonsensitive mouse strains: evidence for direct effect on embryonic tissues. *Arch. Toxicol.* 55(1):20-26.

Hassoun, E., R. d'Argy, L. Dencker, L.G. Lundin and P. Borwell. 1984b. Teratogenicity of 2,3,7,8-tetrachlorodibenzofuran in BXD recombinant inbred strains. *Toxicol. Lett.* 23(1):37-42.

Hassoun, E.A., D. Bagchi and S.J. Stohs. 1995. Evidence of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)-induced tissue damage in fetal and placental tissues and changes in amniotic fluid lipid metabolites of pregnant CF1 mice. *Toxicol. Lett.* 76(3):245-250.

Hassoun, E.A., A.C. Walter, N.Z. Alsharif and S.J. Stohs. 1997. Modulation of TCDD-induced fetotoxicity and oxidative stress in embryonic and placental tissues of C57BL/6J mice by vitamin E succinate and ellagic acid. *Toxicology*. 124(1):27-37.

Hassoun, E.A., S.C. Wilt, M.J. DeVito, A. van Birgelen, N.Z. Alsharif, L.S. Birnbaum and S.J. Stohs. 1998. Induction of oxidative stress in brain tissues of mice after subchronic exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Sci.* 42(1):23-27.

Hatch, M. 1984. Herbicide exposure and reproduction -- and overview. In: *Herbicides and War: The Long-Term Ecological and Human Consequences*, A.H. Westing, Ed. Taylor and Francis, Philadelphia, PA.

Hatch, M. 1984. Reproductive effects of the dioxins. In: *Public Health Risks of the Dioxins*, W.W. Lowrance, Ed. William Kaufmann, Los Altos, CA. pp. 255-275.

Hatch, M.C. and Z.A. Stein. 1986. Agent Orange and risks to reproduction: the limits of epidemiology. *Teratog. Carcinog. Mutagen.* 6(3):185-202.

Hayashi, K. and N. Sakamoto. 1986. *Dynamic Analysis of Enzyme Systems*. Japan Scientific Societies Press, Tokyo.

Hayes, C.L., D.C. Spink, B.C. Spink, J.Q. Cao, N.J. Walker and T.R. Sutter. 1996. 17 beta-estradiol hydroxylation catalyzed by human cytochrome P450 1B1. *Proc. Natl. Acad. Sci. U. S. A.* 93(18):9776-9781.

Hayes, K.C. 1971. On the pathophysiology of vitamin A deficiency. *Nutr. Rev.* 29(1):3-6.



- Hays, S.M., L.L. Aylward, N.J. Karch and D.J. Paustenbach. 1997. The relative susceptibility of animals and humans to the carcinogenic hazard posed by exposure to 2,3,7,8-TCDD: an analysis using standard and internal measures of dose. *Chemosphere*. 34(5-7):1507-1522.
- Hebert, C.D. and L.S. Birnbaum. 1987. The influence of aging on intestinal absorption of TCDD in rats. *Toxicol. Lett.* 37(1):47-55.
- Hebert, C.D., M.W. Harris, M.R. Elwell and L.S. Birnbaum. 1990a. Relative toxicity and tumor-promoting ability of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD), 2,3,4,7,8-pentachlorodibenzofuran (PCDF), and 1,2,3,4,7,8-hexachlorodibenzofuran (HCDF) in hairless mice. *Toxicol. Appl. Pharmacol.* 102(2):362-377.
- Hebert, C.D., Q.L. Cao and L.S. Birnbaum. 1990b. Inhibition of high-density growth arrest in human squamous carcinoma cells by 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Carcinogenesis*. 11(8):1335-1342.
- Hebert, C.D., Q.L. Cao and L.S. Birnbaum. 1990c. Role of transforming growth factor beta in the proliferative effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin on human squamous carcinoma cells. *Cancer Res.* 50(22):7190-7197.
- Heilmann, L.J., Y.Y. Sheen, S.W. Bigelow and D.W. Nebert. 1988. Trout P450IA1: cDNA and deduced protein sequence, expression in liver, and evolutionary significance. *DNA*. 7(6):379-387.
- Heimler, I., A.L. Trewin, C.L. Chaffin, R.G. Rawlins and R.J. Hutz. 1998. Modulation of ovarian follicle maturation and effects on apoptotic cell death in Holtzman rats exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in utero and lactationally. *Reprod. Toxicol.* 12(1):69-73.
- Helder, T. 1980. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on early life stages of the pike (*Esox lucius* L.). *Sci. Total Environ.* 14(3):255-264.
- Helder, T. 1981. Effects of 2,3,7,8-tetrachlorodibenzo-dioxin (TCDD) on early life stages of rainbow trout (*Salmo gairdneri*, Richardson). *Toxicology*. 19(2):101-112.
- Helferich, W.G. and M.S. Denison. 1991. Ultraviolet photoproducts of tryptophan can act as dioxin agonists. *Mol. Pharmacol.* 40(5):674-678.
- Hemming, H., S. Flodstrom, L. Warngard, A. Bergman, T. Kronevi, I. Nordgren and U.G. Ahlborg. 1993. Relative tumour promoting activity of three polychlorinated biphenyls in rat liver. *Eur. J. Pharmacol.* 248(2):163-174.
- Hemming, H., Y. Bager, S. Flodstrom, I. Nordgren, T. Kronevi, U.G. Ahlborg and L. Warngard. 1995. Liver tumour promoting activity of 3,4,5,3',4'-pentachlorobiphenyl and its interaction with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Eur. J. Pharmacol.* 292(3-4):241-249.

- Henck, J.M., M.A. New, R.J. Kociba and K.S. Rao. 1981. 2,3,7,8-tetrachlorodibenzo-p-dioxin: acute oral toxicity in hamsters. *Toxicol. Appl. Pharmacol.* 59(2):405-407.
- Henderson, L.O. and D.G. Patterson, Jr. 1988. Distribution of 2,3,7,8-tetrachlorodibenzo-p-dioxin in human whole blood and its association with, and extractability from, lipoproteins. *Bull. Environ. Contam Toxicol.* 40(4):604-611.
- Hendrich, S., H.P. Glauert and H.C. Pitot. 1986. The phenotypic stability of altered hepatic foci: effects of withdrawal and subsequent readministration of phenobarbital. *Carcinogenesis.* 7(12):2041-2045.
- Hendrich, S., H.A. Campbell and H.C. Pitot. 1987. Quantitative stereological evaluation of four histochemical markers of altered foci in multistage hepatocarcinogenesis in the rat. *Carcinogenesis.* 8(9):1245-1250.
- Henneberger, P.K., B.G. Ferris, Jr. and R.R. Monson. 1989. Mortality among pulp and paper workers in Berlin, New Hampshire. *Br. J. Ind. Med.* 46(9):658-664.
- Henriksen, G.L., J.E. Michalek, J.A. Swaby and A.J. Rahe. 1996. Serum dioxin, testosterone, and gonadotropins in veterans of Operation Ranch Hand. *Epidemiology.* 7(4):352-357.
- Henriksen, G.L., N.S. Ketchum, J.E. Michalek and J.A. Swaby. 1997. Serum dioxin and diabetes mellitus in veterans of Operation Ranch Hand. *Epidemiology.* 8(3):252-258.
- Henry, E.C. and T.A. Gasiewicz. 1987. Changes in thyroid hormones and thyroxine glucuronidation in hamsters compared with rats following treatment with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 89(2):165-174.
- Henry, E.C. and T.A. Gasiewicz. 2003. Agonist but not antagonist ligands induce conformational change in the mouse aryl hydrocarbon receptor as detected by partial proteolysis. *Mol. Pharmacol.* 63(2):392-400.
- Hermansky, S.J., T.L. Holcslaw, W.J. Murray, R.S. Markin and S.J. Stohs. 1988. Biochemical and functional effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on the heart of female rats. *Toxicol. Appl. Pharmacol.* 95(2):175-184.
- Herr, D.W., E.S. Goldey and K.M. Crofton. 1996. Developmental exposure to Aroclor 1254 produces low-frequency alterations in adult rat brainstem auditory evoked responses. *Fundam. Appl. Toxicol.* 33(1):120-128.
- Hertig, A.T., J. Rock, E.C. Dams and M.C. Menkin. 1959. Thirty-four fertilized human ova, good, bad and indifferent, recovered from 210 women of known fertility; a study of biologic wastage in early human pregnancy. *Pediatrics.* 23(1 Part 2):202-211.

Hertzman, C., K. Teschke, A. Ostry, R. Hershler, H. mich-Ward, S. Kelly, J.J. Spinelli, R.P. Gallagher, M. McBride and S.A. Marion. 1997. Mortality and cancer incidence among sawmill workers exposed to chlorophenate wood preservatives. *Am. J. Public Health.* 87(1):71-79.

Hill, A.B. 1965. The environment and disease: association or causation? *Proc. R. Soc. Med.* 58:295-300.

Hill, R.N., L.S. Erdreich, O.E. Paynter, P.A. Roberts, S.L. Rosenthal and C.F. Wilkinson. 1989. Thyroid follicular cell carcinogenesis. *Fundam. Appl. Toxicol.* 12(4):629-697.

Hill, R.N., T.M. Crisp, P.M. Hurley, S.L. Rosenthal and D.V. Singh. 1998. Risk assessment of thyroid follicular cell tumors. *Environ. Health Perspect.* 106(8):447-457.

Hines, M. 1982. Prenatal gonadal hormones and sex differences in human behavior. *Psychol. Bull.* 92(1):56-80.

Hinsdill, R.D., D.L. Couch and R.S. Speirs. 1980. Immunosuppression in mice induced by dioxin (TCDD) in feed. *J. Environ. Pathol. Toxicol.* 4(2-3):401-425.

Hirota, Y., T. Hirohata, K. Kataoka, S. Shinohara and H. Tokiwa. 1993. [Laboratory findings in the medical examination of chronic "Yusho" (PCB poisoning) patients: with special reference to blood PCB and serum triglyceride]. *Fukuoka Igaku Zasshi.* 84(5):287-293.

Hirota, Y., T. Hirohata, K. Kataoka and S. Shinohara. 1995. Blood polychlorinated biphenyls and manifestation of symptoms in chronic "Yusho" patients. *Fukuoka Igaku Zasshi.* 86(5):247-255.

Hoar, S.K., A. Blair, F.F. Holmes, C.D. Boysen, R.J. Robel, R. Hoover and J.F. Fraumeni, Jr. 1986. Agricultural herbicide use and risk of lymphoma and soft-tissue sarcoma. *JAMA.* 256(9):1141-1147.

Hochstein, J.R., R.J. Aulerich and S.J. Bursian. 1988a. Acute toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin to mink. *Arch. Environ. Contam. Toxicol.* 17(1):33-37.

Hochstein, J.R., S.J. Bursian and R.J. Aulerich. 1998b. Effects of dietary exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin in adult female mink (*Mustela vison*). *Arch. Environ. Contam. Toxicol.* 35(2):348-353.

Hoel, D.G. 1980. Incorporation of background in dose-response models. *Fed. Proc.* 39(1):73-75.

Hoel, D.G. 1987. Radiation risk estimation models. *Environ. Health Perspect.* 75:105-107.

- Hoel, D.G. and C.J. Portier. 1994. Nonlinearity of dose-response functions for carcinogenicity. *Environ. Health Perspect.* 102 Suppl 1:109-113.
- Hoffer, A., C.Y. Chang and A. Puga. 1996. Dioxin induces transcription of fos and jun genes by Ah receptor-dependent and -independent pathways. *Toxicol. Appl. Pharmacol.* 141(1):238-247.
- Hoffman, R.E., P.A. Stehr-Green, K.B. Webb, R.G. Evans, A.P. Knutsen, W.F. Schramm, J.L. Staake, B.B. Gibson and K.K. Steinberg. 1986. Health effects of long-term exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *JAMA.* 255(15):2031-2038.
- Hoffman, R.E. and P.A. Stehr-Green. 1989. Localized contamination with 2,3,7,8-tetrachloro-dibenzo-*p*-dioxin: the Missouri episode. In: *Halogenated Biphenyls, Terphenyls, Naphthalenes, Dibenzodioxins and Related Products*, 2nd ed., R. Kimbrough and A.A. Jensen, Eds. Elsevier Science Publishers, Amsterdam. pp. 471-484.
- Hojo, R., S. Stern, G. Zareba, V.P. Markowski, C. Cox, J.T. Kost and B. Weiss. 2002. Sexually dimorphic behavioral responses to prenatal dioxin exposure. *Environ. Health Perspect.* 110(3):247-254.
- Holcomb, M. and S. Safe. 1994. Inhibition of 7,12-dimethylbenzanthracene-induced rat mammary tumor growth by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Cancer Lett.* 82(1):43-47.
- Holene, E., I. Nafstad, J.U. Skaare, A. Bernhoft, P. Engen and T. Sagvolden. 1995. Behavioral effects of pre- and postnatal exposure to individual polychlorinated biphenyl congeners in rats. *Environ. Toxicol. Chem.* 14(6):967-976.
- Holene, E., I. Nafstad, J.U. Skaare and T. Sagvolden. 1998. Behavioural hyperactivity in rats following postnatal exposure to sub-toxic doses of polychlorinated biphenyl congeners 153 and 126. *Behav. Brain Res.* 94(1):213-224.
- Holladay, S.D., P. Lindstrom, B.L. Blaylock, C.E. Comment, D.R. Germolec, J.J. Heindell and M.I. Luster. 1991. Perinatal thymocyte antigen expression and postnatal immune development altered by gestational exposure to tetrachlorodibenzo-p-dioxin (TCDD). *Teratology.* 44(4):385-393.
- Holsapple, M.P. 1995. Immunotoxicity of halogenated aromatic hydrocarbons. In: *Experimental Immunotoxicology*, R.J. Smialowicz and M.P. Hosapple, Eds. CRC Press, Boca Raton, FL. pp. 265-305.
- Holsapple, M.P., J.A. McCay and D.W. Barnes. 1986a. Immunosuppression without liver induction by subchronic exposure to 2,7-dichlorodibenzo-p-dioxin in adult female B6C3F1 mice. *Toxicol. Appl. Pharmacol.* 83(3):445-455.

- Holsapple, M.P., R.K. Dooley, P.J. McNerney and J.A. McCay. 1986b. Direct suppression of antibody responses by chlorinated dibenzodioxins in cultured spleen cells from (C57BL/6 x C3H)F1 and DBA/2 mice. *Immunopharmacology*. 12(3):175-186.
- Holsapple, M.P., D.L. Morris, S.C. Wood and N.K. Snyder. 1991a. 2,3,7,8-tetrachlorodibenzo-p-dioxin-induced changes in immunocompetence: possible mechanisms. *Annu. Rev. Pharmacol. Toxicol.* 31:73-100.
- Holsapple, M.P., N.K. Snyder, S.C. Wood and D.L. Morris. 1991b. A review of 2,3,7,8-tetrachlorodibenzo-p-dioxin-induced changes in immunocompetence: 1991 update. *Toxicology*. 69(3):219-255.
- Holson, R.R. and B. Pearce. 1992. Principles and pitfalls in the analysis of prenatal treatment effects in multiparous species. *Neurotoxicol. Teratol.* 14(3):221-228.
- Homburger, E., G. Reggiani, J. Sambeth and H.K. Wipf. 1979. The Seveso accident: its nature, extent and consequences. *Ann. Occup. Hyg.* 22(4):327-367.
- Hong, C.S., J. Xiao, A.C. Casey, B. Bush, E.F. Fitzgerald and S.A. Hwang. 1994. Mono-ortho- and non-ortho-substituted polychlorinated biphenyls in human milk from Mohawk and control women: effects of maternal factors and previous lactation. *Arch. Environ. Contam. Toxicol.* 27(3):431-437.
- Hong, R., K. Taylor and R. Abonour. 1989. Immune abnormalities associated with the chronic TCDD exposure in Rhesus Monkey. *Chemosphere*. 18(1-6):313-320.
- Hooiveld, M. and D.J. Heederik. 1996. Preliminary results of the second follow-up of a Dutch cohort of workers occupationally exposed to phenoxy herbicides, chlorophenols and contaminants. *Organohalogen Comp.* 30:185-189.
- Hooiveld, M., D.J. Heederik, M. Kogevinas, P. Boffetta, L.L. Needham, D.G. Patterson, Jr. and H.B. Bueno-de-Mesquita. 1998. Second follow-up of a Dutch cohort occupationally exposed to phenoxy herbicides, chlorophenols, and contaminants. *Am. J. Epidemiol.* 147(9):891-901.
- Hook, G.E., J.K. Haseman and G.W. Lucier. 1975. Induction and suppression of hepatic and extrahepatic microsomal foreign-compound-metabolizing enzyme systems by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Chem. Biol. Interact.* 10(3):199-214.
- Hooper, K., T. Chuvakova and Y.-Y. Cheng. 1999. Sex ratio of infants in a TCDD-contaminated region in southern Kazakhstan. *Organohalogen Comp.* 44:389-392.
- Hori, S., H. Obana, T. Kashimoto, T. Otake, H. Nishimura, N. Ikegami, N. Kunita and H. Uda. 1982. Effect of polychlorinated biphenyls and polychlorinated quaterphenyls in *Cynomolgus* monkey (*Macaca fascicularis*). *Toxicology*. 24(2):123-139.

Hornung, M.W., E.W. Zabel and R.E. Peterson. 1996. Toxic equivalency factors of polybrominated dibenzo-p-dioxin, dibenzofuran, biphenyl, and polyhalogenated diphenyl ether congeners based on rainbow trout early life stage mortality. *Toxicol. Appl. Pharmacol.* 140(2):227-234.

Hornung, M.W., J.M. Spitsbergen and R.E. Peterson. 1999. 2,3,7,8-Tetrachlorodibenzo-p-dioxin alters cardiovascular and craniofacial development and function in sac fry of rainbow trout (*Oncorhynchus mykiss*). *Toxicol. Sci.* 47(1):40-51.

House, R.V., L.D. Lauer, M.J. Murray, P.T. Thomas, J.P. Ehrlich, G.R. Burleson and J.H. Dean. 1990. Examination of immune parameters and host resistance mechanisms in B6C3F1 mice following adult exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *J. Toxicol. Environ. Health.* 31(3):203-215.

Hryhorczuk, D.O., W.H. Wallace, V. Persky, S. Furner, J.R. Webster, Jr., D. Oleske, B. Haselhorst, R. Ellefson and C. Zugeran. 1998. A morbidity study of former pentachlorophenol-production workers. *Environ. Health Perspect.* 106(7):401-408.

Hsu, C.C., H.F. Hu, T.J. Lai, H.C. Ko and Y.C. Chen. 1993. Behavioral development of Yu-Cheng children as compared to their matched controls. *Organohalogen Comp.* 14:239-242.

Hsu, C.C., M.L.M. Yu, Y.C.J. Chen, Y.L. Guo and W.J. Rogan. 1994. The Yu-cheng rice oil poisoning incident. In: *Dioxins and Health*, A. Schechter, Ed. Plenum Press, New York, NY. pp. 661-684.

Hsu, S.T., C.I. Ma, S.K. Hsu, S.S. Wu, N.H. Hsu, C.C. Yeh and S.B. Wu. 1985. Discovery and epidemiology of PCB poisoning in Taiwan: a four-year followup. *Environ. Health Perspect.* 59:5-10.

Hudson, L.G., R. Shaikh, W.A. Toscano, Jr. and W.F. Greenlee. 1983. Induction of 7-ethoxycoumarin o-deethylase activity in cultured human epithelial cells by 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD): evidence for TCDD receptor. *Biochem. Biophys. Res. Co.* 115(2):611-617.

Hudson, L.G., W.A. Toscano, Jr. and W.F. Greenlee. 1985. Regulation of epidermal growth factor binding in a human keratinocyte cell line by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 77(2):251-259.

Hudson, L.G., W.A. Toscano, Jr. and W.F. Greenlee. 1986. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) modulates epidermal growth factor (EGF) binding to basal cells from a human keratinocyte cell line. *Toxicol. Appl. Pharmacol.* 82(3):481-492.

Huetter, R. and M. Philippi. 1982. Studies on microbial metabolism of TCDD under laboratory conditions. *Pergamon Ser. Environ. Sci.* 5:87-93.

- Huff, J.E. 1992. 2,3,7,8-TCDD: a potent and complete carcinogen in experimental animals. *Chemosphere*. 25:173-176.
- Huff, J.E., A.G. Salmon, N.K. Hooper and L. Zeise. 1991. Long-term carcinogenesis studies on 2,3,7,8-tetrachlorodibenzo-p-dioxin and hexachlorodibenzo-p-dioxins. *Cell Biol. Toxicol.* 7(1):67-94.
- Huisman, M., C. Koopman-Esseboom, C.I. Lanting, C.G. van der Paauw, L.G. Tuinstra, V. Fidler, N. Weisglas-Kuperus, P.J. Sauer, E.R. Boersma and B.C. Touwen. 1995a. Neurological condition in 18-month-old children perinatally exposed to polychlorinated biphenyls and dioxins. *Early Hum. Dev.* 43(2):165-176.
- Huisman, M., C. Koopman-Esseboom, V. Fidler, M. Hadders-Algra, C.G. van der Paauw, L.G. Tuinstra, N. Weisglas-Kuperus, P.J. Sauer, B.C. Touwen and E.R. Boersma. 1995b. Perinatal exposure to polychlorinated biphenyls and dioxins and its effect on neonatal neurological development. *Early Hum. Dev.* 41(2):111-127.
- Hulme, E.C., C.P. Berrie and N.J.M. Birdsall. 1981. Interactions of muscarinic receptors with guanine nucleotides and adenylate cyclase. In: *Drug Receptors and Their Effectors*, N.J.M. Birdsall, Biological Council Co-ordinating Committee for Symposia on Drug Action and Biochemical Society (Great Britain), Eds. Macmillan, London. 182 pp.
- Huong, L.D., N.T.N. Phuong, T.T. Thuy and N.T.K. Hoan. 1989. An estimate of the incidence of birth defects, hydatidiform mole and fetal death *in utero* between 1952 and 1985 at the obstetrical and gynecological hospital of Ho Chi Minh City, Republic of Vietnam. *Chemosphere*. 18(1-6):805-810.
- Hurley, P.M. 1998. Mode of carcinogenic action of pesticides inducing thyroid follicular cell tumors in rodents. *Environ. Health Perspect.* 106(8):437-445.
- Hurst, C., M.J. DeVito, J.J. Diliberto et al. 1995. Additive interactions of mixtures containing polychlorinated dibenzo-p-dioxins (PCDD), dibenzofurans (PCDF) and biphenyls (PCB). *Toxicologist*. 15:337.
- Hurst, C.H., B.D. Abbott, M.J. DeVito and L.S. Birnbaum. 1998. 2,3,7,8-Tetrachlorodibenzo-p-dioxin in pregnant Long Evans rats: disposition to maternal and embryo/fetal tissues. *Toxicol. Sci.* 45(2):129-136.
- Hurst, C.B., B. Abbott and L. Birnbaum. 1999. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) disrupts early morphogenetic events that form the lower reproductive tract in female rat fetuses. *Organohalogen Comp.*
- Hurst, C.H., M.J. DeVito and L.S. Birnbaum. 2000. Tissue disposition of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in maternal and developing long-evans rats following subchronic exposure. *Toxicol. Sci.* 57(2):275-283.

- Hurst, C.H., M.J. DeVito, R.W. Setzer and L.S. Birnbaum. 2000. Acute administration of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in pregnant Long Evans rats: association of measured tissue concentrations with developmental effects. *Toxicol. Sci.* 53(2):411-420.
- Hushka, L.J., J.S. Williams and W.F. Greenlee. 1998. Characterization of 2,3,7,8-tetrachlorodibenzofuran-dependent suppression and AH receptor pathway gene expression in the developing mouse mammary gland. *Toxicol. Appl. Pharmacol.* 152(1):200-210.
- Huuskonen, H., M. Unkila, R. Pohjanvirta and J. Tuomisto. 1994. Developmental toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in the most TCDD-resistant and -susceptible rat strains. *Toxicol. Appl. Pharmacol.* 124(2):174-180.
- IARC (International Agency for Research on Cancer). 1982a. Cancer Incidence in Five Continents, Vol.IV. IARC/WHO, Lyon, France.
- IARC (International Agency for Research on Cancer). 1982b. Tetrachlorodibenzo-para-dioxin (TCDD). In: Chemicals, Industrial Processes, and Industries Associated With Cancer in Humans. IARC/WHO, Lyon, France. pp. 238-243.
- IARC (International Agency for Research on Cancer). 1992. Mechanisms of Carcinogenesis in Risk Identification, H. Vaino, P.N. Magee, D.B. McGregor and A.J. McMichael, Eds. IARC/WHO, Lyon, France.
- IARC (International Agency for Research on Cancer). 1997a. Monographs on the evaluation of carcinogenic risks to humans. Polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans. Vol. 69. World Health Organization, Lyon, France.
- IARC (International Agency for Research on Cancer). 1997b. Polychlorinated dibenzo-para-dioxins and polychlorinated dibenzofurans. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. IARC/WHO, Lyon, France.
- Ideo, G., G. Bellati, A. Bellobuono and L. Bissanti. 1985. Urinary D-glucaric acid excretion in the Seveso area, polluted by tetrachloro-dibenzo-p-dioxin (TCDD): five years of experience. *Environ. Health Perspect.* 60:151-157.
- Ignar-Trowbridge, D.M., K.G. Nelson, M.C. Bidwell, S.W. Curtis, T.F. Washburn, J.A. McLachlan and K.S. Korach. 1992. Coupling of dual signaling pathways: epidermal growth factor action involves the estrogen receptor. *Proc. Natl. Acad. Sci. U. S. A.* 89(10):4658-4662.
- Ikezuki, Y., O. Tsutsumi, Y. Takai et al. 1999. Breast-fed infants possibly exposed to dioxins in milk, compared to formula-fed infants, have unexpectedly lower incidence of endometriosis in later adult life. *Organohalogen Comp.* 44:393-395.



Institute of Medicine. 2008. Veterans and Agent Orange: herbicide/dioxin exposure and type 2 diabetes. Committee to Review the Evidence Regarding the Link Between Exposure to Agent Orange and Diabetes, Division of Health Promotion and Disease Prevention, National Academy Press, Washington, DC.

Ioannou, Y.M., L.S. Birnbaum and H.B. Matthews. 1983. Toxicity and distribution of 2,3,7,8-tetrachlorodibenzofuran in male guinea pigs. *J. Toxicol. Environ. Health.* 12(4-6):541-553.

Israel, D.I. and J.P. Whitlock, Jr. 1983. Induction of mRNA specific for cytochrome P1-450 in wild type and variant mouse hepatoma cells. *J. Biol. Chem.* 258(17):10390-10394.

Ito, N., M. Tatematsu, K. Nakanishi, R. Hasegawa, T. Takano, K. Imaida and T. Ogiso. 1980. The effects of various chemicals on the development of hyperplastic liver nodules in hepatectomized rats treated with N-nitrosodiethylamine or N-2-fluorenylacetamide. *Gann.* 71(6):832-842.

Ito, N., M. Tatematsu, R. Hasegawa and H. Tsuda. 1989. Medium-term bioassay system for detection of carcinogens and modifiers of hepatocarcinogenesis utilizing the GST-P positive liver cell focus as an endpoint marker. *Toxicol. Pathol.* 17(4 Pt 1):630-641.

Jackson, J.A., J.J. Diliberto and L.S. Birnbaum. 1993. Estimation of octanol-water partition coefficients and correlation with dermal absorption for several polyhalogenated aromatic hydrocarbons. *Fundam. Appl. Toxicol.* 21(3):334-344.

Jackson, J.A., L.S. Birnbaum and J.J. Diliberto. 1998. Effects of age, sex, and pharmacologic agents on the biliary elimination of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in F344 rats. *Drug Metab Dispos.* 26(7):714-719.

Jacobson, J.L. and S.W. Jacobson. 1996. Intellectual impairment in children exposed to polychlorinated biphenyls *in utero*. *N. Engl. J. Med.* 335(11):783-789.

Jain, S., E. Maltepe, M.M. Lu, C. Simon and C.A. Bradfield. 1998. Expression of ARNT, ARNT2, HIF1 alpha, HIF2 alpha and Ah receptor mRNAs in the developing mouse. *Mech. Dev.* 73(1):117-123.

Jaiswal, A.K., D.W. Nebert and H.W. Eisen. 1985. Comparison of aryl hydrocarbon hydroxylase and acetanilide 4-hydroxylase induction by polycyclic aromatic compounds in human and mouse cell lines. *Biochem. Pharmacol.* 34(15):2721-2731.

James, W.H. 1987. The human sex ratio. Part 1: A review of the literature. *Hum. Biol.* 59(5):721-752.

James, W.H. 1997a. Re: "Total serum testosterone and gonadotropins in workers exposed to dioxin" [letter; comment]. *Am. J. Epidemiol.* 145:569.

- James, W.H. 1997b. Reproductive effects of male dioxin exposure. The use of offspring sex ratios to detect reproductive effects of male exposure to dioxins [letter; comment by Toppari J, Skakkebaek, NE.]. *Environ. Health Perspect.* 105:162-163.
- James, W.H. 1997c. The sex ratio of offspring sired by men exposed to wood preservatives contaminated by dioxin [letter; comment]. *Scand. J. Work Environ. Health.* 23:69.
- James, W.H. 1998. Re: the use of offspring sex ratios in the search for endocrine disruptors [letter; comment]. *Environ. Health Perspect.* 106:A472-A473.
- Janz, D.M. and G.D. Bellward. 1997. Effects of acute 2,3,7,8-tetrachlorodibenzo-p-dioxin exposure on plasma thyroid and sex steroid hormone concentrations and estrogen receptor levels in adult blue herons. *Environ. Toxicol. Chem.* 16(5):985-989.
- Jappinen, P., T. Hakulinen, E. Pukkala, S. Tola and K. Kurppa. 1987. Cancer incidence of workers in the Finnish pulp and paper industry. *Scand. J. Work Environ. Health.* 13(3):197-202.
- Jean-Faucher, C., M. Berger, M. de Turckheim, G. Veysiere and C. Jean. 1982a. Effect of preweaning undernutrition on testicular development in male mice. *Int. J. Androl.* 5(6):627-635.
- Jean-Faucher, C., M. Berger, M. de Turckheim, G. Veysiere and C. Jean. 1982b. The effect of preweaning undernutrition upon the sexual development of male mice. *Biol. Neonate.* 41(1-2):45-51.
- Jelinek, D.F. and P.E. Lipsky. 1987. Regulation of human B lymphocyte activation, proliferation, and differentiation. *Adv. Immunol.* 40:1-59.
- Jennings, A.M., G. Wild, J.D. Ward and A.M. Ward. 1988. Immunological abnormalities 17 years after accidental exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Br. J. Ind. Med.* 45(10):701-704.
- Jensen, A.A. 1987. Polychlorobiphenyls (PCBs), polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) in human milk, blood and adipose tissue. *Sci. Total Environ.* 64(3):259-293.
- Jensen, E. and P.M. Bolger. 2000. Exposure assessment of dioxins/furans consumed in dairy foods and fish. *Food Addit. Contam.* 18(5):395-403.
- Jensen, E., R. Canady and P.M. Bolger. 2000. Exposure assessment for dioxins and furans in seafood and dairy foods in the United States, 1998-99. *Organohalogen Comp.* 47:318-321.
- Jirasek, L., J. Kalensky and K. Kubeck. 1973. Acne chlorina and porphyria cutanea tarda during the manufacturing of herbicides. *Cesk. Dermatol.* 48:306-317.

Jirasek, L., K. Kalensky, K. Kubeck, J. Pazderova and E. Lukas. 1974. Acne chlorina, porphyria cutanea and other manifestation of. *Cesk. Dermatol.* 49:145-157.

Jirtle, R.L. and S.A. Meyer. 1991. Liver tumor promotion: effect of phenobarbital on EGF and protein kinase C signal transduction and transforming growth factor-beta 1 expression. *Dig. Dis. Sci.* 36(5):659-668.

Jirtle, R.L., S.A. Meyer and J.S. Brockenbrough. 1991. Liver tumor promoter phenobarbital: a biphasic modulator of hepatocyte proliferation. *Prog. Clin. Biol. Res.* 369:209-216.

Johnson, C.W., W.C. Williams, C.B. Copeland, M.J. DeVito and R.J. Smialowicz. 2000. Sensitivity of the SRBC PFC assay versus ELISA for detection of immunosuppression by TCDD and TCDD-like congeners. *Toxicology.* 156(1):1-11.

Johnson, E.S. 1990. Association between soft tissue sarcomas, malignant lymphomas, and phenoxy herbicides/chlorophenols: evidence from occupational cohort studies. *Fundam. Appl. Toxicol.* 14(2):219-234.

Johnson, E., C. Shorter, L. Bestervelt, D. Patterson, L. Needham, W. Piper, G. Lucier and C. Nolan. 2001. Serum hormone levels in humans with low serum concentrations of 2,3,7,8-TCDD. *Toxicol. Ind. Health.* 17(4):105-112.

Johnson, K.L., A.M. Cummings and L.S. Birnbaum. 1997. Promotion of endometriosis in mice by polychlorinated dibenzo-p-dioxins, dibenzofurans, and biphenyls. *Environ. Health Perspect.* 105(7):750-755.

Johnson, L., R. Dickerson, S.H. Safe, C.L. Nyberg, R.P. Lewis and T.H. Welsh, Jr. 1992. Reduced Leydig cell volume and function in adult rats exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin without a significant effect on spermatogenesis. *Toxicology.* 76(2):103-118.

Johnson, L., C.E. Wilker, S.H. Safe, B. Scott, D.D. Dean and P.H. White. 1994. 2,3,7,8-Tetrachlorodibenzo-p-dioxin reduces the number, size, and organelle content of Leydig cells in adult rat testes. *Toxicology.* 89(1):49-65.

Johnson, R., J. Tietge and S. Botts. 1992a. Carcinogenicity of 2,3,7,8-TCDD to Medaca. *Toxicologist.* 12:138.

Johnson, R.D., J.E. Tietge and S. Botts. 1992b. Carcinogenicity of 2,3,7,8-TCDD to Medaka. *Toxicologist.* 12(1):138.

Jones, E.L. and H. Krizek. 1962. A technique for testing acnegenic potency in rabbits, applied to the potent acnegen, 2,3,7,8-tetrachlorodibenzo-p-dioxin. *J. Invest. Dermatol.* 39:511-517.

Jones, G. and J.B. Greig. 1975. Pathological changes in the liver of mice given 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Experientia.* 31:1315-1317.

- Jones, K.C. 1988. Determination of polychlorinated biphenyls in human foodstuffs and tissues: suggestions for a selective congener analytical approach. *Sci. Total Environ.* 68:141-159.
- Jones, K.G. and G.D. Sweeney. 1980. Dependence of the porphyrogenic effect of 2,3,7,8-tetrachlorodibenzo(p)dioxin upon inheritance of aryl hydrocarbon hydroxylase responsiveness. *Toxicol. Appl. Pharmacol.* 53(1):42-49.
- Jones, K.G., F.M. Cole and G.D. Sweeney. 1981. The role of iron in the toxicity of 2,3,7,8-tetrachlorodibenzo-(p)-dioxin (TCDD). *Toxicol. Appl. Pharmacol.* 61(1):74-88.
- Jones, M.K., W.P. Weisenburger, I.G. Sipes and D.H. Russell. 1987. Circadian alterations in prolactin, corticosterone, and thyroid hormone levels and down-regulation of prolactin receptor activity by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 87(2):337-350.
- Jones, R.E. and M. Chelsky. 1986. Further discussion concerning porphyria cutanea tarda and TCDD exposure. *Arch. Environ. Health.* 41:100-103.
- Jung, D., P.A. Berg, L. Edler, W. Ehrental, D. Fenner, D. Flesch-Janys, C. Huber, R. Klein, C. Koitka, G. Lucier, A. Manz, A. Muttray, L. Needham, O. Papke, M. Pietsch, C. Portier, D. Patterson, W. Prellwitz, D.M. Rose, A. Thews and J. Konietzko. 1998. Immunologic findings in workers formerly exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin and its congeners. *Environ. Health Perspect.* 106 Suppl 2:689-695.
- Jurek, M.A., R.H. Powers, L.G. Gilbert and S.D. Aust. 1990. The effect of TCDD on acyl CoA:retinol acyltransferase activity and vitamin A accumulation in the kidney of male Sprague-Dawley rats. *J. Biochem. Toxicol.* 5(3):155-160.
- Jusko, W.J. 1995. Pharmacokinetics and receptor-mediated pharmacodynamics of corticosteroids. *Toxicology.* 102(1-2):189-196.
- Kadlubar, F.F., M.A. Butler, K.R. Kaderlik, H.C. Chou and N.P. Lang. 1992. Polymorphisms for aromatic amine metabolism in humans: relevance for human carcinogenesis. *Environ. Health Perspect.* 98:69-74.
- Kahn, P.C., M. Gochfeld, M. Nygren, M. Hansson, C. Rappe, H. Velez, T. Ghent-Guenther and W.P. Wilson. 1988. Dioxins and dibenzofurans in blood and adipose tissue of Agent Orange-exposed Vietnam veterans and matched controls. *JAMA.* 259(11):1661-1667.
- Kainu, T., J.A. Gustafsson and M. Pelto-Huikko. 1995. The dioxin receptor and its nuclear translocator (Arnt) in the rat brain. *Neuroreport.* 6(18):2557-2560.
- Kamath, A.B., H. Xu, P.S. Nagarkatti and M. Nagarkatti. 1997. Evidence for the induction of apoptosis in thymocytes by 2,3,7,8-tetrachlorodibenzo-p-dioxin in vivo. *Toxicol. Appl. Pharmacol.* 142(2):367-377.

- Kamath, A.B., I. Camacho, P.S. Nagarkatti and M. Nagarkatti. 1999. Role of Fas-Fas ligand interactions in 2,3,7,8-tetrachlorodibenzo- p-dioxin (TCDD)-induced immunotoxicity: increased resistance of thymocytes from Fas-deficient (lpr) and Fas ligand-defective (gld) mice to TCDD-induced toxicity. *Toxicol. Appl. Pharmacol.* 160(2):141-155.
- Kang, H.K., L. Weatherbee, P.P. Breslin, Y. Lee and B.M. Shepard. 1986. Soft tissue sarcomas and military service in Vietnam: a case comparison group analysis of hospital patients. *J. Occup. Med.* 28(12):1215-1218.
- Kang, H., F.M. Enzinger, P. Breslin, M. Feil, Y. Lee and B. Shepard. 1987. Soft tissue sarcoma and military service in Vietnam: a case-control study. *J. Natl. Cancer Inst.* 79(4):693-699.
- Kang, H.K., K.K. Watanabe, J. Breen, J. Remmers, M.G. Conomos, J. Stanley and M. Flicker. 1991. Dioxins and dibenzofurans in adipose tissue of US Vietnam veterans and controls. *Am. J. Public Health.* 81(3):344-349.
- Kannan, N., S. Tanabe and R. Tatsukawa. 1988. Potentially hazardous residues of non-ortho chlorine substituted coplanar PCBs in human adipose tissue. *Arch. Environ. Health.* 43(1):11-14.
- Karenlampi, S.O., C. Legraverend, J.M. Gudas, N. Carramanzana and O. Hankinson. 1988. A third genetic locus affecting the Ah (dioxin) receptor. *J. Biol. Chem.* 263(21):10111-10117.
- Karras, J.G. and M.P. Holsapple. 1994a. Inhibition of calcium-dependent B cell activation by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 125(2):264-270.
- Karras, J.G. and M.P. Holsapple. 1994b. Mechanisms of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)-induced disruption of B-lymphocyte signaling in the mouse: a current perspective. *Exp. Clin. Immunogenet.* 11(2-3):110-118.
- Karras, J.G., D.H. Conrad and M.P. Holsapple. 1995. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on interleukin-4-mediated mechanisms of immunity. *Toxicol. Lett.* 75(1-3):225-233.
- Karras, J.G., D.L. Morris, R.A. Matulka, C.M. Kramer and M.P. Holsapple. 1996. 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) elevates basal B-cell intracellular calcium concentration and suppresses surface Ig- but not CD40-induced antibody secretion. *Toxicol. Appl. Pharmacol.* 137(2):275-284.
- Kashani, M., G. Steiner, A. Haitel, K. Schaufler, T. Thalhammer, G. Amann, G. Kramer, M. Marberger and A. Scholler. 1998. Expression of the aryl hydrocarbon receptor (AhR) and the aryl hydrocarbon receptor nuclear translocator (ARNT) in fetal, benign hyperplastic, and malignant prostate. *Prostate.* 37(2):98-108.

- Kashimoto, T., H. Miyata, S. Fukushima, N. Kunita, G. Ohi and T.C. Tung. 1985. PCBs, PCQs and PCDFs in blood of yusho and yu-cheng patients. *Environ. Health Perspect.* 59:73-78.
- Katz, L.B., H.M. Theobald, R.C. Bookstaff and R.E. Peterson. 1984. Characterization of the enhanced paw edema response to carrageenan and dextran in 2,3,7,8-tetrachlorodibenzo-p-dioxin-treated rats. *J. Pharmacol. Exp. Ther.* 230(3):670-677.
- Kawajiri, K., K. Nakachi, K. Imai, J. Watanabe and S. Hayashi. 1993. Germ line polymorphisms of p53 and CYP1A1 genes involved in human lung cancer. *Carcinogenesis.* 14(6):1085-1089.
- Kayajanian, G. 1997. Dioxin is a promoter blocker, a promoter, and a net anticarcinogen. *Regul. Toxicol. Pharmacol.* 26(1 Pt 1):134-137.
- Kayajanian, G.M. 1999. Dioxin is a systemic promoter blocker, II. *Ecotoxicol. Environ. Saf.* 42(2):103-109.
- Kedderis, L.B., J.J. Diliberto and L.S. Birnbaum. 1991a. Disposition and excretion of intravenous 2,3,7,8-tetrabromodi-benzo-p-dioxin (TBDD) in rats. *Toxicol. Appl. Pharmacol.* 108(3):397-406.
- Kedderis, L.B., J.J. Diliberto, P. Linko, J.A. Goldstein and L.S. Birnbaum. 1991b. Disposition of 2,3,7,8-tetrabromodibenzo-p-dioxin and 2,3,7,8-tetrachlorodibenzo-p-dioxin in the rat: biliary excretion and induction of cytochromes CYP1A1 and CYP1A2. *Toxicol. Appl. Pharmacol.* 111(1):163-172.
- Kedderis, L.B., J.J. Mills, M.E. Andersen and L.S. Birnbaum. 1993a. A physiologically based pharmacokinetic model for 2,3,7,8-tetrabromodibenzo-p-dioxin (TBDD) in the rat: tissue distribution and CYP1A induction. *Toxicol. Appl. Pharmacol.* 121(1):87-98.
- Kedderis, L.B., M.E. Andersen and L.S. Birnbaum. 1993b. Effect of dose, time, and pretreatment on the biliary excretion and tissue distribution of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the rat. *Fundam. Appl. Toxicol.* 21(4):405-411.
- Keesey, R.E. and T.L. Powley. 1975. Hypothalamic regulation of body weight. *Am. Sci.* 63:558-565.
- Keesey, R.E. and T.L. Powley. 1986. The regulation of body weight. *Annu. Rev. Psychol.* 37:109-133.
- Kelley, S.K., C.B. Nilsson, M.H. Green, J.B. Green and H. Hakansson. 1998. Use of model-based compartmental analysis to study effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on vitamin A kinetics in rats. *Toxicol. Sci.* 44(1):1-13.

- Kelling, C.K., B.J. Christian, S.L. Inhorn and R.E. Peterson. 1985. Hypophagia-induced weight loss in mice, rats, and guinea pigs treated with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Fundam. Appl. Toxicol.* 5(4):700-712.
- Kelling, C.K., L.A. Menahan and R.E. Peterson. 1987. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin treatment on mechanical function of the rat heart. *Toxicol. Appl. Pharmacol.* 91(3):497-501.
- Kellokumpu-Lehtinen, P. and L.J. Pelliniemi. 1984. Sex ratio of human conceptuses. *Obstet. Gynecol.* 64(2):220-222.
- Kerkvliet, N.I. 1984. Halogenated aromatic hydrocarbons (HAH) as immunotoxicants. *Prog. Clin. Biol. Res.* 161:369-387.
- Kerkvliet, N.I. 1994. Immunotoxicology of dioxins and related chemicals. In: *Dioxin and Health*, A. Schecter, Ed. Plenum Press, New York, NY. pp. 199-221.
- Kerkvliet, N.I. and L. Baecher-Steppan. 1988a. Suppression of allograft immunity by 3,4,5,3',4',5'-hexachlorobiphenyl. I. Effects of exposure on tumor rejection and cytotoxic T cell activity in vivo. *Immunopharmacology.* 16(1):1-12.
- Kerkvliet, N.I. and L. Baecher-Steppan. 1988b. Suppression of allograft immunity by 3,4,5,3',4',5'-hexachlorobiphenyl. II. Effects of exposure on mixed lymphocyte reactivity and induction of suppressor cell activity in vitro. *Immunopharmacology.* 16(1):13-23.
- Kerkvliet, N.I. and J.A. Brauner. 1987. Mechanisms of 1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin (HpCDD)-induced humoral immune suppression: evidence of primary defect in T-cell regulation. *Toxicol. Appl. Pharmacol.* 87(1):18-31.
- Kerkvliet, N.I. and J.A. Brauner. 1990. Flow cytometric analysis of lymphocyte subpopulations in the spleen and thymus of mice exposed to an acute immunosuppressive dose of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Environ. Res.* 52(2):146-154.
- Kerkvliet, N.I. and G.R. Burleson. 1994. Immunotoxicity of TCDD and related halogenated aromatic hydrocarbons. In: *Immunotoxicology and Immunopharmacology*, J.H. Dean, M.I. Luster, A.E. Munson and I. Kimber, Eds. Raven Press, New York, NY. pp. 97-121.
- Kerkvliet, N.I. and J.A. Oughton. 1993. Acute inflammatory response to sheep red blood cell challenge in mice treated with 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD): phenotypic and functional analysis of peritoneal exudate cells. *Toxicol. Appl. Pharmacol.* 119(2):248-257.
- Kerkvliet, N.I., J.A. Brauner and J.P. Matlock. 1985. Humoral immunotoxicity of polychlorinated diphenyl ethers, phenoxyphenols, dioxins and furans present as contaminants of technical grade pentachlorophenol. *Toxicology.* 36(4):307-324.

- Kerkvliet, N.I., L. Baecher-Steppan, B.B. Smith, J.A. Youngberg, M.C. Henderson and D.R. Buhler. 1990a. Role of the Ah locus in suppression of cytotoxic T lymphocyte activity by halogenated aromatic hydrocarbons (PCBs and TCDD): structure-activity relationships and effects in C57Bl/6 mice congenic at the Ah locus. *Fundam. Appl. Toxicol.* 14(3):532-541.
- Kerkvliet, N.I., L.B. Steppan, J.A. Brauner, J.A. Deyo, M.C. Henderson, R.S. Tomar and D.R. Buhler. 1990b. Influence of the Ah locus on the humoral immunotoxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin: evidence for Ah-receptor-dependent and Ah-receptor-independent mechanisms of immunosuppression. *Toxicol. Appl. Pharmacol.* 105(1):26-36.
- Kerkvliet, N.I., L. Baecher-Steppan, D.M. Shepherd, J.A. Oughton, B.A. Vorderstrasse and G.K. DeKrey. 1996. Inhibition of TC-1 cytokine production, effector cytotoxic T lymphocyte development and alloantibody production by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *J. Immunol.* 157(6):2310-2319.
- Ketchum, N.S. and F.Z. Akhtar. 1996. The Air Force Health Study: an epidemiologic investigation of health effects in Air Force personnel following exposure to herbicides, mortality update. Armstrong Laboratory, Brooks Air Force Base, Texas. Interim Technical Report AL/AO-TR-1996-0068.
- Ketchum, N.S., J.E. Michalek and J.E. Burton. 1999. Serum dioxin and cancer in veterans of Operation Ranch Hand. *Am. J. Epidemiol.* 149(7):630-639.
- Keys, B., M. Hlavinka, G. Mason and S. Safe. 1985. Modulation of rat hepatic microsomal testosterone hydroxylases by 2,3,7,8-tetrachlorodibenzo-p-dioxin and related toxic isostereomers. *Can. J. Physiol Pharmacol.* 63(12):1537-1542.
- Khera, K.S. 1992. Extraembryonic tissue changes induced by 2,3,7,8-tetrachlorodibenzo-p-dioxin and 2,3,4,7,8-pentachlorodibenzofuran with a note on direction of maternal blood flow in the labyrinth of C57BL/6N mice. *Teratology.* 45(6):611-627.
- Khera, K.S. and J.A. Ruddick. 1973. Polychlorodibenzo-p-dioxins: perinatal effects and the dominant lethal test in Wistar rats. In: *Chlorodioxins: Origin and Fate*, 120, E.H. Blair, Ed. American Chemical Society, Washington, DC. pp. 70-84.
- Kim, A.H., M.C. Kohn, C.J. Portier and N.J. Walker. 2002. Impact of physiologically based pharmacokinetic modeling on benchmark dose calculations for TCDD-induced biochemical responses. *Regul. Toxicol. Pharmacol.* 36(3):287-296.
- Kim, M.Y. and N. Dubin. 1996. Study design and sample size considerations for half-life studies. *Arch. Environ. Contam. Toxicol.* 30(3):423-429.
- Kimbrough, R.D., C.D. Carter, J.A. Liddle and R.E. Cline. 1977. Epidemiology and pathology of a tetrachlorodibenzodioxin poisoning episode. *Arch. Environ. Health.* 32(2):77-86.



- Kimmel, G.L. 1988. Appendix C: Reproductive and developmental toxicity of 2,3,7,8-TCDD. External Review Draft. A Cancer Risk-Specific Dose Estimate for 2,3,7,8-TCDD. Appendices A-F. U.S. Environmental Protection Agency, Office of Research and Development, Office of Health and Environmental Assessment, Washington, DC. EPA/600/6-88/007Ab.
- Kimmig, J. and K.H. Schulz. 1957a. [Occupational acne (so-called chloracne) due to chlorinated aromatic cyclic ethers.]. *Dermatologica*. 115(4):540-546.
- Kimmig, J. and K.H. Schulz. 1957b. Chlorinated aromatic cyclic ethers as the cause of so-called chloracne. *Naturwissenschaften*. 44:337-338.
- King, F.G., R.L. Dedrick, J.M. Collins, H.B. Matthews and L.S. Birnbaum. 1983. Physiological model for the pharmacokinetics of 2,3,7,8-tetrachlorodibenzofuran in several species. *Toxicol. Appl. Pharmacol.* 67(3):390-400.
- Kissel, J.C. and G.M. Robarge. 1988. Assessing the elimination of 2,3,7,8-TCDD from humans with a physiologically based pharmacokinetic model. *Chemosphere*. 17(10):2017-2027.
- Kitchin, K.T. and J.S. Woods. 1979. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) effects on hepatic microsomal cytochrome P-448-mediated enzyme activities. *Toxicol. Appl. Pharmacol.* 47(3):537-546.
- Kiukkonen, A., M. Viluksela, C. Sahlberg, S. Alaluusua, J.T. Tuomisto and P.-L. Lukinmaa. 2003. Response of the incisor tooth to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin in a dioxin-resistant and a dioxin-sensitive rat strain. *Toxicol. Sci.* 69(2):482-489.
- Kleeman, M. and J.A. Gustafsson. 1996. Interactions of procarcinogenic heterocyclic amines and indolocarbazoles with the dioxin receptor. *Biol. Chem.* 377(11):741-762.
- Kleeman, J.M., J.R. Olson, S.M. Chen and R.E. Peterson. 1986a. 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin metabolism and disposition in yellow perch. *Toxicol. Appl. Pharmacol.* 83(3):402-411.
- Kleeman, J.M., J.R. Olson, S.M. Chen and R.E. Peterson. 1986b. Metabolism and disposition of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin in rainbow trout. *Toxicol. Appl. Pharmacol.* 83(3):391-401.
- Kleeman, J.M., J.R. Olson and R.E. Peterson. 1988. Species differences in 2,3,7,8-tetrachlorodibenzo-*p*-dioxin toxicity and biotransformation in fish. *Fundam. Appl. Toxicol.* 10(2):206-213.
- Kleeman, J.M., R.W. Moore and R.E. Peterson. 1990. Inhibition of testicular steroidogenesis in 2,3,7,8-tetrachlorodibenzo-*p*-dioxin-treated rats: evidence that the key lesion occurs prior to or during pregnenolone formation. *Toxicol. Appl. Pharmacol.* 106(1):112-125.

Kleman, M.I., L. Poellinger and J.A. Gustafsson. 1994. Regulation of human dioxin receptor function by indolocarbazoles, receptor ligands of dietary origin. *J. Biol. Chem.* 269(7):5137-5144.

Kline, J., Z. Stein and M. Susser. 1989. *Conception to Birth: Epidemiology of Prenatal Development.* Oxford University Press, New York, NY.

Knutson, J.C. and A. Poland. 1980a. 2,3,7,8-Tetrachlorodibenzo-p-dioxin: failure to demonstrate toxicity in twenty-three cultured cell types. *Toxicol. Appl. Pharmacol.* 54(3):377-383.

Knutson, J.C. and A. Poland. 1980b. Keratinization of mouse teratoma cell line XB produced by 2,3,7,8-tetrachlorodibenzo-p-dioxin: an in vitro model of toxicity. *Cell.* 22(1 Pt 1):27-36.

Ko, Y.C., C.E. Chang, S.S. Liu and H.T. Hu. 1981a. [Epidemiological study of PCB poisoning (author's transl)]. *Taiwan Yi Xue Hui Za Zhi.* 80(4):406-417.

Ko, Y.C., L.T. Jao, C.T. Cheng, S.T. Hsu, H.C. Hsiao and H.T. Hu. 1981b. [The blood level of PCB in the poisoned patients (author's transl)]. *Taiwan Yi Xue Hui Za Zhi.* 80(8):774-779.

Kociba, R.J. 1984. Evaluation of the carcinogenic and mutagenic potential of 2,3,7,8-TCDD and other chlorinated dioxins. *Banbury Report 18: Biological Mechanisms of Dioxin Action.* Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. pp. 73-84.

Kociba, R.J., P.A. Keeler, C.N. Park and P.J. Gehring. 1976. 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD): results of a 13-week oral toxicity study in rats. *Toxicol. Appl. Pharmacol.* 35(3):553-574.

Kociba, R.J., D.G. Keyes, J.E. Beyer and R.M. Carreon. 1978a. Toxicologic studies of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in rats. *Toxicol. Occup. Med.* 4:281-287.

Kociba, R.J., D.G. Keyes, J.E. Beyer, R.M. Carreon, C.E. Wade, D.A. Dittenber, R.P. Kalnins, L.E. Frauson, C.N. Park, S.D. Barnard, R.A. Hummel and C.G. Humiston. 1978b. Results of a two-year chronic toxicity and oncogenicity study of 2,3,7,8-tetrachlorodibenzo-p-dioxin in rats. *Toxicol. Appl. Pharmacol.* 46(2):279-303.

Kociba, R.J., D.G. Keyes, J.E. Beyer, R.M. Carreon and P.J. Gehring. 1979. Long-term toxicologic studies of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in laboratory animals. *Ann. N. Y. Acad. Sci.* 320:397-404.

Koda, H. and Y. Masuda. 1975. [Relation between PCB level in the blood and clinical symptoms of yusho patients (author's transl)]. *Fukuoka Igaku Zasshi.* 66(10):624-628.

Kodavanti, P.R., T.R. Ward, J.D. McKinney and H.A. Tilson. 1996. Inhibition of microsomal and mitochondrial Ca<sup>2+</sup>-sequestration in rat cerebellum by polychlorinated biphenyl mixtures and congeners. Structure-activity relationships. *Arch. Toxicol.* 70(3-4):150-157.

Koga, N., M. Beppu, C. Ishida and H. Yoshimura. 1989. Further studies on metabolism in vivo of 3,4,3',4'-tetrachlorobiphenyl in rats: identification of minor metabolites in rat faeces. *Xenobiotica.* 19(11):1307-1318.

Kogan, M.D. and R.W. Clapp. 1988. Soft tissue sarcoma mortality among Vietnam veterans in Massachusetts, 1972 to 1983. *Int. J. Epidemiol.* 17(1):39-43.

Kogevinas, M., H. Becher, T. Benn, P.A. Bertazzi, P. Boffetta, H.B. Bueno-de-Mesquita, D. Coggon, D. Colin, D. Flesch-Janys, M. Fingerhut, L. Green, T. Kauppinen, M. Littorin, E. Lynge, J.D. Mathews, M. Neuberger, N. Pearce and R. Saracci. 1997. Cancer mortality in workers exposed to phenoxy herbicides, chlorophenols, and dioxins. An expanded and updated international cohort study. *Am. J. Epidemiol.* 145(12):1061-1075.

Kogevinas, M., R. Saracci, R. Winkelmann, E.S. Johnson, P.A. Bertazzi, B.H. Bueno de Mesquita, T. Kauppinen, M. Littorin, E. Lynge and M. Neuberger. 1993. Cancer incidence and mortality in women occupationally exposed to chlorophenoxy herbicides, chlorophenols, and dioxins. *Cancer Cause Control.* 4(6):547-553.

Kogevinas, M., T. Kauppinen, R. Winkelmann, H. Becher, P.A. Bertazzi, H.B. Bueno-de-Mesquita, D. Coggon, L. Green, E. Johnson and M. Littorin. 1995. Soft tissue sarcoma and non-Hodgkin's lymphoma in workers exposed to phenoxy herbicides, chlorophenols, and dioxins: two nested case-control studies. *Epidemiology.* 6(4):396-402.

Kohn, M.C. 1995. Biochemical mechanisms and cancer risk assessment models for dioxin. *Toxicology.* 102(1-2):133-138.

Kohn, M.C., G.W. Lucier, G.C. Clark, C. Sewall, A.M. Tritscher and C.J. Portier. 1993. A mechanistic model of effects of dioxin on gene expression in the rat liver. *Toxicol. Appl. Pharmacol.* 120(1):138-154.

Kohn, M.C., C.H. Sewall and G.W. Lucier. 1994. A dosimetric model of effects of repeated exposure to TCDD on the hepatic EGF receptor of female rats. *Toxicologist.* 14:195.

Kohn, M.C., C.H. Sewall, G.W. Lucier and C.J. Portier. 1996. A mechanistic model of effects of dioxin on thyroid hormones in the rat. *Toxicol. Appl. Pharmacol.* 136(1):29-48.

Koninckx, P.R., P. Braet, S.H. Kennedy and D.H. Barlow. 1994. Dioxin pollution and endometriosis in Belgium. *Hum. Reprod.* 9(6):1001-1002.

- Koopman-Esseboom, C., D.C. Morse, N. Weisglas-Kuperus, I.J. Lutkeschipholt, C.G. van der Paauw, L.G. Tuinstra, A. Brouwer and P.J. Sauer. 1994a. Effects of dioxins and polychlorinated biphenyls on thyroid hormone status of pregnant women and their infants. *Pediatr. Res.* 36(4):468-473.
- Koopman-Esseboom, C., M. Huisman, N. Weisglas-Kuperus et al. 1994b. PCB and dioxin levels in plasma and human milk of 418 Dutch women and their infants. Predictive value of PCB congener levels in maternal plasma for fetal and infant's exposure to PCBs and dioxins. *Chemosphere.* 28(9):1721-1732.
- Koopman-Esseboom, C., M. Huisman, N. Weisglas-Kuperus, E.R. Boersma, M.A. De Ridder, C.G. van der Paauw, L.G. Tuinstra and P.J. Sauer. 1994c. Dioxin and PCB levels in blood and human milk in relation to living areas in The Netherlands. *Chemosphere.* 29(9-11):2327-2338.
- Koopman-Esseboom, C., N. Weisglas-Kuperus, M.A.J. de Ridder, C.G. vander Paauw, L.G.M.T. Tuinstra, and P.J.J. Sauer. 1995. Effects of PCB/dioxin exposure and feeding type on the infant's visual recognition memory, Erasmus Universiteit Rotterdam.
- Koopman-Esseboom, C., N. Weisglas-Kuperus, M.A. De Ridder, C.G. van der Paauw, L.G. Tuinstra and P.J. Sauer. 1996. Effects of polychlorinated biphenyl/dioxin exposure and feeding type on infants' mental and psychomotor development. *Pediatrics.* 97(5):700-706.
- Koopman-Esseboom, C., M. Huisman, B.C. Touwen, E.R. Boersma, A. Brouwer, P.J. Sauer and N. Weisglas-Kuperus. 1997. Newborn infants diagnosed as neurologically abnormal with relation to PCB and dioxin exposure and their thyroid-hormone status. *Dev. Med. Child Neurol.* 39(11):785.
- Korkalainen, M., J. Tuomisto and R. Pohjanvirta. 2001. The AH receptor of the most dioxin-sensitive species, guinea pig, is highly homologous to the human AH receptor. *Biochem. Biophys. Res. Co.* 285(5):1121-1129.
- Korte, M., R. Stahlmann and D. Neubert. 1990. Induction of hepatic monooxygenases in female rats and offspring in correlation with TCDD tissue concentrations after single treatment during pregnancy. *Chemosphere.* 20(7-9):1193-1198.
- Kouri, R.E., T.H. Rude, R. Joglekar, P.M. Dansette, D.M. Jerina, S.A. Atlas, I.S. Owens and D.W. Nebert. 1978. 2,3,7,8-tetrachlorodibenzo-p-dioxin as cocarcinogen causing 3-methylcholanthrene-initiated subcutaneous tumors in mice genetically "nonresponsive" at Ah locus. *Cancer Res.* 38(9):2777-2783.
- Kozak, K.R., B. Abbott and O. Hankinson. 1997. ARNT-deficient mice and placental differentiation. *Dev. Biol.* 191(2):297-305.

- Kramer, C.M., K.W. Johnson, R.K. Dooley and M.P. Holsapple. 1987. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) enhances antibody production and protein kinase activity in murine B cells. *Biochem. Biophys. Res. Co.* 145(1):25-33.
- Kremer, J., E. Gleichmann and C. Esser. 1994. Thymic stroma exposed to arylhydrocarbon receptor-binding xenobiotics fails to support proliferation of early thymocytes but induces differentiation. *J. Immunol.* 153(6):2778-2786.
- Kremer, J., Z.W. Lai and C. Esser. 1995. Evidence for the promotion of positive selection of thymocytes by Ah receptor agonist 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Eur. J. Pharmacol.* 293(4):413-427.
- Kreuzer, P.E., G.A. Csanady, C. Baur, W. Kessler, O. Papke, H. Greim and J.G. Filser. 1997. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) and congeners in infants. A toxicokinetic model of human lifetime body burden by TCDD with special emphasis on its uptake by nutrition. *Arch. Toxicol.* 71(6):383-400.
- Krowke, R. 1986. Studies on distribution and embryotoxicity of different PCDD and PCDF in mice and marmosets. *Chemosphere.* 15(9-12):2011-2022.
- Krowke, R., I. Chahoud, I. Baumann-Wilschke and D. Neubert. 1989. Pharmacokinetics and biological activity of 2,3,7,8-tetrachlorodibenzo-p-dioxin. 2. Pharmacokinetics in rats using a loading-dose/maintenance-dose regime with high doses. *Arch. Toxicol.* 63(5):356-360.
- Kruger, N., B. Neubert, H. Helge and D. Neubert. 1990. Induction of caffeine-dermethyations by 2,3,7,8-TCDD in marmoset monkeys measured with a <sup>14</sup>CO<sub>2</sub>-breath test. *Chemosphere.* 20(7-9):1173-1176.
- Kubiak, T.J., H.J. Harris, L.M. Smith, T.R. Schwartz, D.L. Stalling, J.A. Trick, L. Sileo, D.E. Docherty and T.C. Erdman. 1989. Microcontaminants and reproductive impairment of the Forster's tern on Green Bay, Lake Michigan--1983. *Arch. Environ. Contam. Toxicol.* 18(5):706-727.
- Kuehl, D.W., P.M. Cook and A.R. Batterman. 1986. Update and depuration studies of PCDDs and PCDFs in fresh water fish. *Chemosphere.* 15(9-12):2023-2026.
- Kunstadter, P. 1982. A Study of Herbicides and Birth Defects in the Republic of Vietnam. An Analysis of Hospital Records. National Academy Press, Honolulu, HI.
- Kuratsune, M. 1972. An abstract of results of laboratory examinations of patients with Yusho and of animal experiments. *Environ. Health Perspect.* 1:129-136.
- Kuratsune, M. 1989. Yusho, with reference to Yu-Cheng. In: Halogenated Biophenyls, Terphenyls, Naphthalenes, Dibenzodioxins and Related Products, 2nd ed., R.D. Kimbrough and A.A. Jensen, Eds. Elsevier Science Publishers, New York, NY. pp. 381-400.

Kuratsune, M., T. Yoshimura, J. Matsuzaka and A. Yamaguchi. 1972. Epidemiologic study on Yusho, a Poisoning Caused by Ingestion of Rice Oil Contaminated with a Commercial Brand of Polychlorinated Biphenyls. *Environ. Health Perspect.* 1:119-128.

Kuratsune, M., Y. Masuda and J. Nagayama. 1975. Some of the recent findings concerning Yusho: proceedings of National Conference on Polychlorinated Biphenyls. In: National Conference on Polychlorinated Biphenyls, November 19, 75 A.D.

Kuratsune, M., M. Ikeda, Y. Nakamura and T. Hirohata. 1988. A cohort study on mortality of Yusho patients: A preliminary report. In: Unusual Occurrences as Clues to Cancer Etiology, R.W. Miller, S. Wantanebe and J.F. Fraumeni, Eds. Japan Sci. Soc Press: Tokyo/Taylor and Francis, Ltd. pp. 61-68.

Kuriowa, Y., Y. Murai and T. Santa. 1969. Neurological and nerve conduction velocity studies of 23 patients with chlorobiphenyls poisoning. *Fukuoka Igaku Zasshi.* 60:462-463.

Kuroki, H., K. Haraguchi and Y. Masuda. 1990. Metabolism of polychlorinated dibenzofurans (PCDFs) in rats. *Chemosphere.* 20(7-9):1059-1064.

Kutz, F.W., D. Barnes, E.W. Bretthauer, D.P. Bottimore and H. Griem. 1990. The international toxicity equivalency factor (I-TEF) method for estimating risks associated with exposures to complex mixtures of dioxins and related compounds. *Toxicol. Environ. Chem.* 26(1-4):99-109.

Lahvis, G.P. and C.A. Bradfield. 1998. Ahr null alleles: distinctive or different? *Biochem. Pharmacol.* 56(7):781-787.

Lai, T.J., Y.C. Chen, W.J. Chou, Y.L. Guo, H.C. Ko and C.C. Hsu. 1993. Cognitive development in Yu-Cheng children. In: Dioxin '93, 13th International Symposium on Chlorinated Dioxins and Related Compounds, Vienna, Austria.

Lai, T.J., Y.L. Guo, M.L. Yu, H.C. Ko and C.C. Hsu. 1994. Cognitive development in Yucheng children. *Chemosphere.* 29(9-11):2405-2411.

Lai, Z.W., P. Griem, E. Gleichmann and C. Esser. 1995. CD8 thymocytes derived from 3,3',4,4'-tetrachlorobiphenyl-exposed fetal thymi possess killing activity. *Toxicol. Appl. Pharmacol.* 133(2):223-232.

Lai, Z.W., T. Pineau and C. Esser. 1996. Identification of dioxin-responsive elements (DREs) in the 5' regions of putative dioxin-inducible genes. *Chem. Biol. Interact.* 100(2):97-112.

LaKind, J.S., C.M. Berlin, C.N. Park, D.Q. Naiman and N.J. Gudka. 2000. Methodology for characterizing distributions of incremental body burdens of 2,3,7,8-TCDD and DDE from breast milk in North American nursing infants. *J. Toxicol. Environ. Health A.* 59(8):605-639.

- Lakshman, M.R., B.S. Campbell, S.J. Chirtel and N. Ekarohita. 1988. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on de novo fatty acid and cholesterol synthesis in the rat. *Lipids*. 23(9):904-906.
- Lakshman, M.R., S.J. Chirtel, L.L. Chambers and P.J. Coutlakis. 1989. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on lipid synthesis and lipogenic enzymes in the rat. *J. Pharmacol. Exp. Ther.* 248(1):62-66.
- Lakshman, M.R., P. Ghosh and S.J. Chirtel. 1991. Mechanism of action of 2,3,7,8-tetrachlorodibenzo-p-dioxin on intermediary metabolism in the rat. *J. Pharmacol. Exp. Ther.* 258(1):317-319.
- Lakshmanan, M.R., B.S. Campbell, S.J. Chirtel, N. Ekarohita and M. Ezekiel. 1986. Studies on the mechanism of absorption and distribution of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the rat. *J. Pharmacol. Exp. Ther.* 239(3):673-677.
- Lamb, J.C., J.A. Moore and T.A. Marks. 1980. Evaluation of 2,4-D, 2,4,5-T, and 2,3,7,8-TCDD toxicity in C57BL/6 mice: reproduction and fertility in treated mice and congenital malformations in their offspring. National Toxicology Program. NTP 80-44.
- Lambert, G.H. and D.W. Nebert. 1977. Genetically mediated induction of drug-metabolizing enzymes associated with congenital defects in the mouse. *Teratology*. 16(2):147-153.
- Lambrecht, R.W., P.R. Sinclair, W.J. Bement and J.F. Sinclair. 1988. Uroporphyrin accumulation in cultured chick embryo hepatocytes: comparison of 2,3,7,8-tetrachlorodibenzo-p-dioxin and 3,4,3',4'-tetrachlorobiphenyl. *Toxicol. Appl. Pharmacol.* 96(3):507-516.
- Lampi, P., T. Hakulinen, T. Luostarinen, E. Pukkala and L. Teppo. 1992. Cancer incidence following chlorophenol exposure in a community in southern Finland. *Arch. Environ. Health*. 47(3):167-175.
- Lan, S.J., Y.Y. Yen, Y.C. Ko and E.R. Chen. 1989. Growth and development of permanent teeth germ of transplacental Yu-Cheng babies in Taiwan. *Bull. Environ. Contam Toxicol.* 42(6):931-934.
- Landi, M.T., P.A. Bertazzi and D. Consonni. 1996. TCDD blood levels, population characteristics, and individual accident experience. *Organohalogen Comp.* 30:290-293.
- Landi, M.T., L.L. Needham, G. Lucier, P. Mocarelli, P.A. Bertazzi and N. Caporaso. 1997. Concentrations of dioxin 20 years after Seveso. *Lancet*. 349(9068):1811.

Landi, M.T., D. Consonni, D.G. Patterson, Jr., L.L. Needham, Lucier G., P. Brambilla, M.A. Cazzaniga, P. Mocarelli, A.C. Pesatori, P.A. Bertazzi and N.E. Caporaso. 1998. 2,3,7,8-Tetrachlorodibenzo-p-dioxin plasma levels in Seveso 20 years after the accident. *Environ. Health Perspect.* 106(5):273-277.

Landrigan, P.J., K.R. Wilcox, Jr., J. Silva, Jr., H.E. Humphrey, C. Kauffman and C.W. Heath, Jr. 1979. Cohort study of Michigan residents exposed to polybrominated biphenyls: epidemiologic and immunologic findings. *Ann. N. Y. Acad. Sci.* 320:284-294.

Lang, D.S., S. Becker, G.C. Clark, R.B. Devlin and H.S. Koren. 1994. Lack of direct immunosuppressive effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on human peripheral blood lymphocyte subsets in vitro. *Arch. Toxicol.* 68(5):296-302.

Lans, M.C., E. Klasson-Wehler, M. Willemsen, E. Meussen, S. Safe and A. Brouwer. 1993. Structure-dependent, competitive interaction of hydroxy-polychlorobiphenyls, -dibenzo-p-dioxins and -dibenzofurans with human transthyretin. *Chem. Biol. Interact.* 88(1):7-21.

Lathrop, G.D., W.H. Wolfe, R.A. Albanese and P.M. Moynahan. An epidemiologic investigation of health effects in Air Force personnel following exposure to herbicides. Baseline morbidity study results. (unpublished)

Lathrop, G.D., W.H. Wolfe, S.G. Machado, J.E. Michalek and T.G. Karrison. An epidemiologic investigation of health effects in Air Force personnel following exposure to herbicides. First follow-up examination results, January 1985-September 1987. (unpublished)

Law, K.L., B.T. Hwang and I.S. Shaio. 1981. PCB poisoning in newborn twins. *Clin. Med. (Taipei) Chinese.* 7:88-91.

Lawrence, B.P., M. Leid and N.I. Kerkvliet. 1996. Distribution and behavior of the Ah receptor in murine T lymphocytes. *Toxicol. Appl. Pharmacol.* 138(2):275-284.

Lawrence, C.E., A.A. Reilly, P. Quickenton, P. Greenwald, W.F. Page and A.J. Kuntz. 1985. Mortality patterns of New York State Vietnam Veterans. *Am. J. Public Health.* 75(3):277-279.

Lebel, G., S. Dodin, P. Ayotte, S. Marcoux, L.A. Ferron and E. Dewailly. 1998. Organochlorine exposure and the risk of endometriosis. *Fertil. Steril.* 69(2):221-228.

Lee, I.P. and R.L. Dixon. 1978. Factors influencing reproduction and genetic toxic effects on male gonads. *Environ. Health Perspect.* 24:117-127.

Leece, B., M.A. Denomme, R. Towner, S.M. Li and S. Safe. 1985. Polychlorinated biphenyls: correlation between in vivo and in vitro quantitative structure-activity relationships (QSARs). *J. Toxicol. Environ. Health.* 16(3-4):379-388.



- Leibowitz, S.F., J.T. Alexander, W.K. Cheung and G.F. Weiss. 1993. Effects of serotonin and the serotonin blocker metergoline on meal patterns and macronutrient selection. *Pharmacol. Biochem. Behav.* 45(1):185-194.
- Leonards, P.E.G., T.H. de Vries, W. Minnard, S. Stuijzand, P.D. Voogt, W.P. Cofino, N.M. Van Straalen and B. Van Hattum. 1995. Assessment of experimental data on PCB-induced reproduction inhibition in mink, based on an isomer- and congener-specific approach using 2,3,7,8-tetrachloro-dibenzo-p-dioxin toxic equivalency. *Environ. Toxicol. Chem.* 14(4):639-652.
- Leung, H.W., R.H. Ku, D.J. Paustenbach and M.E. Andersen. 1988. A physiologically based pharmacokinetic model for 2,3,7,8-tetrachlorodibenzo-p-dioxin in C57BL/6J and DBA/2J mice. *Toxicol. Lett.* 42(1):15-28.
- Leung, H.W., A. Poland, D.J. Paustenbach, F.J. Murray and M.E. Andersen. 1990a. Pharmacokinetics of [125I]-2-iodo-3,7,8-trichlorodibenzo-p-dioxin in mice: analysis with a physiological modeling approach. *Toxicol. Appl. Pharmacol.* 103(3):411-419.
- Leung, H.W., D.J. Paustenbach, F.J. Murray and M.E. Andersen. 1990b. A physiological pharmacokinetic description of the tissue distribution and enzyme-inducing properties of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the rat. *Toxicol. Appl. Pharmacol.* 103(3):399-410.
- Leung, H.W., J.M. Wendling, R. Orth, F. Hileman and D.J. Paustenbach. 1990c. Relative distribution of 2,3,7,8-tetrachlorodibenzo-p-dioxin in human hepatic and adipose tissues. *Toxicol. Lett.* 50(2-3):275-282.
- Levy, S. 1991. A difference in hypothalamic structure between heterosexual and homosexual men. *Science.* 253(5023):1034-1037.
- Levin, W., A. Wood, R. Chang, D. Ryan, P. Thomas, H. Yagi, D. Thakker, K. Vyas, C. Boyd, S.Y. Chu, A. Conney and D. Jerina. 1982. Oxidative metabolism of polycyclic aromatic hydrocarbons to ultimate carcinogens. *Drug Metab. Rev.* 13(4):555-580.
- Li, J.J. and S.A. Li. 1990. Estrogen carcinogenesis in hamster tissues: a critical review. *Endocr. Rev.* 11(4):524-531.
- Li, X. and K.K. Rozman. 1995. Subchronic effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and their reversibility in male Sprague-Dawley rats. *Toxicology.* 97(1-3):133-140.
- Li, X., D.C. Johnson and K.K. Rozman. 1995a. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on estrous cyclicity and ovulation in female Sprague-Dawley rats. *Toxicol. Lett.* 78(3):219-222.
- Li, X., D.C. Johnson and K.K. Rozman. 1995b. Reproductive effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in female rats: ovulation, hormonal regulation, and possible mechanism(s). *Toxicol. Appl. Pharmacol.* 133(2):321-327.

Liehr, J.G. and M.J. Ricci. 1996. 4-Hydroxylation of estrogens as marker of human mammary tumors. *Proc. Natl. Acad. Sci. U. S. A.* 93(8):3294-3296.

Liehr, J.G., W.F. Fang, D.A. Sirbasku and A. ri-Ulubelen. 1986. Carcinogenicity of catechol estrogens in Syrian hamsters. *J. Steroid Biochem.* 24(1):353-356.

Liem, A.K.D., S. Atuma, W. Becker, P.O. Darnerud, R. Hogerbrugge and G.A. Schreiber. 2000. Dietary intake of dioxin and dioxin-like PCBs by the general population of ten European countries. Results of EU-SCOOP Task 3.2.5. (Dioxins). *Organohalogen Comp.* 48:13-16.

Liem, H.H., U. Muller-Eberhard and E.F. Johnson. 1980. Differential induction by 2,3,7,8-tetrachlorodibenzo-p-dioxin of multiple forms of rabbit microsomal cytochrome P-450: evidence for tissue specificity. *Mol. Pharmacol.* 18(3):565-570.

Lilienthal, H. and G. Winneke. 1991. Sensitive periods for behavioral toxicity of polychlorinated biphenyls: determination by cross-fostering in rats. *Fundam. Appl. Toxicol.* 17(2):368-375.

Lilienthal, H., A. Weinand-Harer, H. Winterhoff and G. Winneke. 1997. Effects of maternal exposure to 3,3',4,4'-tetrachlorobiphenyl or propylthiouracil in rats trained to discriminate apomorphine from saline. *Toxicol. Appl. Pharmacol.* 146(1):162-169.

Limbird, L.E. and P. Taylor. 1998. Endocrine disruptors signal the need for receptor models and mechanisms to inform policy. *Cell.* 93(2):157-163.

Lin, F.H., G. Clark, L.S. Birnbaum, G.W. Lucier and J.A. Goldstein. 1991a. Influence of the Ah locus on the effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on the hepatic epidermal growth factor receptor. *Mol. Pharmacol.* 39(3):307-313.

Lin, F.H., S.J. Stohs, L.S. Birnbaum, G. Clark, G.W. Lucier and J.A. Goldstein. 1991b. The effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on the hepatic estrogen and glucocorticoid receptors in congenic strains of Ah responsive and Ah nonresponsive C57BL/6J mice. *Toxicol. Appl. Pharmacol.* 108(1):129-139.

Lin, T.M., K. Ko, S. Ohtani et al. 2000. Ah receptor (AhR) in mouse prostate growth and development: Physiological role and role in mediating TCDD effects. *Toxicol. Sci.* (In Press)

Lin, T.M., N.T. Rasmussen, R.W. Moore, R.M. Albrecht and R.E. Peterson. 2003. Region-specific inhibition of prostatic epithelial bud formation in the urogenital sinus of C57BL/6 mice exposed in utero to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Sci.* 76(1):171-181.

Lindenau, A., B. Fischer, P. Seiler and H.M. Beier. 1994. Effects of persistent chlorinated hydrocarbons on reproductive tissues in female rabbits. *Hum. Reprod.* 9(5):772-780.

- Lindros, K.O., T. Oinonen, I. Johansson and M. Ingelman-Sundberg. 1997. Selective centrilobular expression of the aryl hydrocarbon receptor in rat liver. *J. Pharmacol. Exp. Ther.* 280(1):506-511.
- Lipp, H.P., D. Schrenk, T. Wiesmuller, H. Hagenmaier and K.W. Bock. 1992. Assessment of biological activities of mixtures of polychlorinated dibenzo-p-dioxins (PCDDs) and their constituents in human HepG2 cells. *Arch. Toxicol.* 66(3):220-223.
- Liu, H., L. Biegel, T.R. Narasimhan, C. Rowlands and S. Safe. 1992. Inhibition of insulin-like growth factor-I responses in MCF-7 cells by 2,3,7,8-tetrachlorodibenzo-p-dioxin and related compounds. *Mol. Cell Endocrinol.* 87(1-3):19-28.
- Longnecker, M.P. and J.E. Michalek. 2000. Serum dioxin level in relation to diabetes mellitus among Air Force veterans with background levels of exposure. *Epidemiology.* 11(1):44-48.
- Loose, L.D., K.A. Pittman, K.F. Benitz, J.B. Silkworth, W. Mueller and F. Coulston. 1978. Environmental chemical-induced immune dysfunction. *Ecotoxicol. Environ. Saf.* 2(2):173-198.
- Lorber, M. 2002. A pharmacokinetic model for estimating exposure of Americans to dioxin-like compounds in the past, present, and future. *Sci. Total Environ.* 288(1-2):81-95.
- Lorber, M. and L. Phillips. 2002. Infant exposure to dioxin-like compounds in breast milk. *Environ. Health Perspect.* 110(6):A325-A332.
- Lorenzen, A. and A.B. Okey. 1990. Detection and characterization of [3H]2,3,7,8-tetrachlorodibenzo-p-dioxin binding to Ah receptor in a rainbow trout hepatoma cell line. *Toxicol. Appl. Pharmacol.* 106(1):53-62.
- Lorenzen, A. and A.B. Okey. 1991. Detection and characterization of Ah receptor in tissue and cells from human tonsils. *Toxicol. Appl. Pharmacol.* 107(2):203-214.
- Low, T.L. and A.L. Goldstein. 1984. Thymosins: structure, function and therapeutic applications. *Thymus.* 6(1-2):27-42.
- Lu, Y.C. and P.N. Wong. 1984. Dermatological, medical, and laboratory findings of patients in Taiwan and their treatments. *Am. J. Ind. Med.* 5(1-2):81-115.
- Lu, Y.C. and Y.C. Wu. 1985. Clinical findings and immunological abnormalities in Yu-Cheng patients. *Environ. Health Perspect.* 59:17-29.
- Lu, Y.F., M. Santostefano, B.D. Cunningham, M.D. Threadgill and S. Safe. 1995. Identification of 3'-methoxy-4'-nitroflavone as a pure aryl hydrocarbon (Ah) receptor antagonist and evidence for more than one form of the nuclear Ah receptor in MCF-7 human breast cancer cells. *Arch. Biochem. Biophys.* 316(1):470-477.

Lu, Y.F., M. Santostefano, B.D. Cunningham, M.D. Threadgill and S. Safe. 1996. Substituted flavones as aryl hydrocarbon (Ah) receptor agonists and antagonists. *Biochem. Pharmacol.* 51(8):1077-1087.

Lucier, G.W. 1991. Humans are a sensitive species to some of the biochemical effects of structural analogs of dioxin. *Environ. Toxicol. Chem.* 10(6):727-735.

Lucier, G.W. 1992. Receptor mediated carcinogenesis. In: *Mechanisms of Carcinogenesis in Risk Identification*, No 116 ed., H. Vaino, P.N. Magee, D.B. McGregor and A.J. McMichael, Eds. IARC/WHO, Lyon, France.

Lucier, G.W., O.S. McDaniel, G.E. Hook, B.A. Fowler, B.R. Sonawane and E. Faeder. 1973. TCDD-induced changes in rat liver microsomal enzymes. *Environ. Health Perspect.* 5:199-209.

Lucier G., O.S. McDaniel and G.E. Hook. 1974. Nature of the enhancement of uridine diphosphate glucuronyltransferase activity by 2,3,7,8-tetrachlorodibenzo-*p*-dioxin in rats. *Biochem. Pharmacol.* 24:325-334.

Lucier, G.W., B.R. Sonawane, O.S. McDaniel and G.E. Hook. 1975. Postnatal stimulation of hepatic microsomal enzymes following administration of TCDD to pregnant rats. *Chem. Biol. Interact.* 11(1):15-26.

Lucier, G.W., E.M. Lui and C.A. Lamartiniere. 1979. Metabolic activation/deactivation reactions during perinatal development. *Environ. Health Perspect.* 29:7-16.

Lucier, G.W., S.R. Slaughter, C. Thompson, C.A. Lamartiniere and W. Powell-Jones. 1981. Selective actions of growth hormone on rat liver estrogen binding proteins. *Biochem. Biophys. Res. Co.* 103(3):872-879.

Lucier, G.W., R.C. Rumbaugh, Z. McCoy, R. Hass, D. Harvan and P. Albro. 1986. Ingestion of soil contaminated with 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD) alters hepatic enzyme activities in rats. *Fundam. Appl. Toxicol.* 6(2):364-371.

Lucier, G.W., K.G. Nelson, R.B. Everson, T.K. Wong, R.M. Philpot, T. Tiernan, M. Taylor and G.I. Sunahara. 1987. Placental markers of human exposure to polychlorinated biphenyls and polychlorinated dibenzofurans. *Environ. Health Perspect.* 76:79-87.

Lucier, G.W., A. Tritscher, T. Goldsworthy, J. Foley, G. Clark, J. Goldstein and R. Maronpot. 1991. Ovarian hormones enhance 2,3,7,8-tetrachlorodibenzo-*p*-dioxin-mediated increases in cell proliferation and preneoplastic foci in a two-stage model for rat hepatocarcinogenesis. *Cancer Res.* 51(5):1391-1397.

Lucier G., G. Clark, A. Tritscher, J. Foley and R. Maronpot. 1992. Mechanisms of dioxin tumor promotion: implications for risk assessment. *Chemosphere.* 25(1-2):177-180.

- Lucier, G.W., C.J. Portier and M.A. Gallo. 1993. Receptor mechanisms and dose-response models for the effects of dioxins. *Environ. Health Perspect.* 101(1):36-44.
- Luebke, R.W., C.B. Copeland, J.J. Diliberto, P.I. Akubue, D.L. Andrews, M.M. Riddle, W.C. Williams and L.S. Birnbaum. 1994. Assessment of host resistance to *Trichinella spiralis* in mice following preinfection exposure to 2,3,7,8-TCDD. *Toxicol. Appl. Pharmacol.* 125(1):7-16.
- Luebke, R.W., C.B. Copeland and D.L. Andrews. 1995. Host resistance to *Trichinella spiralis* infection in rats exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Fundam. Appl. Toxicol.* 24(2):285-289.
- Luebke, R.W., C.B. Copeland and D.L. Andrews. 1999. Effects of aging on resistance to *Trichinella spiralis* infection in rodents exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicology.* 136(1):15-26.
- Lund, A.K., M.B. Goens, N.L. Kanagy and M.K. Walker. 2003. Cardiac hypertrophy in aryl hydrocarbon receptor null mice is correlated with elevated angiotensin II, endothelin-1, and mean arterial blood pressure. *Toxicol. Appl. Pharmacol.* 193(2):177-187.
- Lundberg, K., L. Dencker and K.O. Gronvik. 1990. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) treatment in vivo on thymocyte functions in mice after activation in vitro. *Int. J. Immunopharmacol.* 12(4):459-466.
- Lundgren, K., G.W. Collman, S. Wang-Wuu, T. Tiernan, M. Taylor, C.L. Thompson and G.W. Lucier. 1988. Cytogenetic and chemical detection of human exposure to polyhalogenated aromatic hydrocarbons. *Environ. Mol. Mutagen.* 11(1):1-11.
- Lundgren, K., M. Andries, C. Thompson and G.W. Lucier. 1986. Dioxin treatment of rats results in increased in vitro induction of sister chromatid exchanges by alpha-naphthoflavone: an animal model for human exposure to halogenated aromatics. *Toxicol. Appl. Pharmacol.* 85(2):189-195.
- Lundgren, K., M. Andries, C. Thompson and G.W. Lucier. 1987. alpha-Naphthoflavone metabolized by 2,3,7,8-tetrachlorodibenzo(p)dioxin-induced rat liver microsomes: a potent clastogen in Chinese hamster ovary cells. *Cancer Res.* 47(14):3662-3666.
- Lusska, A., L. Wu and J.P. Whitlock, Jr. 1992. Superinduction of CYP1A1 transcription by cycloheximide. Role of the DNA binding site for the liganded Ah receptor. *J. Biol. Chem.* 267(21):15146-15151.
- Lusska, A., E. Shen and J.P. Whitlock, Jr. 1993. Protein-DNA interactions at a dioxin-responsive enhancer. Analysis of six bona fide DNA-binding sites for the liganded Ah receptor. *J. Biol. Chem.* 268(9):6575-6580.

Luster, M.I., G.A. Boorman, J.H. Dean, M.W. Harris, R.W. Luebke, M.L. Padarathsingh and J.A. Moore. 1980a. Examination of bone marrow, immunologic parameters and host susceptibility following pre- and postnatal exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Int. J. Immunopharmacol.* 2(4):301-310.

Luster, M.I., G.A. Boorman, M.W. Harris and J.A. Moore. 1980b. Laboratory studies on polybrominated biphenyl-induced immune alterations following low-level chronic or pre/postnatal exposure. *Int. J. Immunopharmacol.* 2:69-80.

Luster, M.I., L.H. Hong, G.A. Boorman, G. Clark, H.T. Hayes, W.F. Greenlee, K. Dold and A.N. Tucker. 1985. Acute myelotoxic responses in mice exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Toxicol. Appl. Pharmacol.* 81(1):156-165.

Luster, M.I., D.R. Germolec, G. Clark, G. Wiegand and G.J. Rosenthal. 1988. Selective effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin and corticosteroid on in vitro lymphocyte maturation. *J. Immunol.* 140(3):928-935.

Lutz, R.J., R.L. Dedrick, D. Tuey, I.G. Sipes, M.W. Anderson and H.B. Matthews. 1984. Comparison of the pharmacokinetics of several polychlorinated biphenyls in mouse, rat, dog, and monkey by means of a physiological pharmacokinetic model. *Drug Metab Dispos.* 12(5):527-535.

Lynge, E. 1985. A follow-up study of cancer incidence among workers in manufacture of phenoxy herbicides in Denmark. *Br. J. Cancer.* 52(2):259-270.

Lynge, E. 1987. Background and design of a Danish cohort study of workers in phenoxy herbicide manufacture. *Am. J. Ind. Med.* 11(4):427-437.

Lynge, E. 1993. Cancer in phenoxy herbicide manufacturing workers in Denmark, 1947-87--an update. *Cancer Cause Control.* 4(3):261-272.

Lynge, E. 1998. Cancer incidence in Danish phenoxy herbicide workers, 1947-1993. *Environ. Health Perspect.* 106 Suppl 2:683-688.

Ma, Q., L. Dong and J.P. Whitlock, Jr. 1995. Transcriptional activation by the mouse Ah receptor. Interplay between multiple stimulatory and inhibitory functions. *J. Biol. Chem.* 270(21):12697-12703.

Ma, Q. and J.P. Whitlock, Jr. 1996. The aromatic hydrocarbon receptor modulates the Hepa 1c1c7 cell cycle and differentiated state independently of dioxin. *Mol. Cell Biol.* 16(5):2144-2150.

Ma, Q. and J.P. Whitlock, Jr. 1997. A novel cytoplasmic protein that interacts with the Ah receptor, contains tetratricopeptide repeat motifs, and augments the transcriptional response to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *J. Biol. Chem.* 272(14):8878-8884.

Mably, T.A., H.M. Theobald, G.B. Ingall and R.E. Peterson. 1990. Hypergastrinemia is associated with decreased gastric acid secretion in 2,3,7,8-tetrachlorodibenzo-p-dioxin-treated rats. *Toxicol. Appl. Pharmacol.* 106(3):518-528.

Mably, T.A., R.W. Moore, D.L. Bjerke and R.E. Peterson. 1991. The male reproductive system is highly sensitive to *in utero* and lactational 2,3,7,8-tetrachlorodibenzo-p-dioxin exposure. Banbury Report 35: Biological Basis for Risk Assessment of Dioxins and Related Compounds. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. pp. 69-78.

Ma, X., N.A. Mufti and J.G. Babish. 1992a. Protein tyrosine phosphorylation as an indicator of 2,3,7,8-tetrachloro-p-dioxin exposure *in vivo* and *in vitro*. *Biochem. Biophys. Res. Co.* 189(1):59-65.

Mably, T.A., R.W. Moore and R.E. Peterson. 1992b. *In utero* and lactational exposure of male rats to 2,3,7,8-tetrachlorodibenzo-p-dioxin. 1. Effects on androgenic status. *Toxicol. Appl. Pharmacol.* 114(1):97-107.

Mably, T.A., D.L. Bjerke, R.W. Moore, A. Gendron-Fitzpatrick and R.E. Peterson. 1992c. *In utero* and lactational exposure of male rats to 2,3,7,8-tetrachlorodibenzo-p-dioxin. 3. Effects on spermatogenesis and reproductive capability. *Toxicol. Appl. Pharmacol.* 114(1):118-126.

Mably, T.A., R.W. Moore, R.W. Goy and R.E. Peterson. 1992d. *In utero* and lactational exposure of male rats to 2,3,7,8-tetrachlorodibenzo-p-dioxin. 2. Effects on sexual behavior and the regulation of luteinizing hormone secretion in adulthood. *Toxicol. Appl. Pharmacol.* 114(1):108-117.

Mac, M.J., T. Schwartz and C.C. Edsall. 1988. Correlating PCB effects on fish reproduction using dioxin equivalents. In: Ninth Annual Society of Environmental Toxicology and Chemistry Meeting, Arlington, VA.

Mackie, D., J. Liu, Y.S. Loh and V. Thomas. 2003. No evidence of dioxin cancer threshold. *Environ. Health Perspect.* 111(9):1145-1147.

MacLusky, N.J. and F. Naftolin. 1981. Sexual differentiation of the central nervous system. *Science.* 211(4488):1294-1302.

MacLusky, N.J., T.J. Brown, S. Schantz, B.W. Seo and R.E. Peterson. 1998. Hormonal interactions in the effects of halogenated aromatic hydrocarbons on the developing brain. *Toxicol. Ind. Health.* 14(1-2):185-208.

Madhukar, B.V., D.W. Brewster and F. Matsumura. 1984. Effects of *in vivo*-administered 2,3,7,8-tetrachlorodibenzo-p-dioxin on receptor binding of epidermal growth factor in the hepatic plasma membrane of rat, guinea pig, mouse, and hamster. *Proc. Natl. Acad. Sci. U. S. A.* 81(23):7407-7411.

- Madhukar, B.V., K. Ebner, F. Matsumura, D.W. Bombick, D.W. Brewster and T. Kawamoto. 1988. 2,3,7,8-Tetrachlorodibenzo-p-dioxin causes an increase in protein kinases associated with epidermal growth factor receptor in the hepatic plasma membrane. *J. Biochem. Toxicol.* 3:261-277.
- Mahon, M.J. and T.A. Gasiewicz. 1995. Ah receptor phosphorylation: localization of phosphorylation sites to the C-terminal half of the protein. *Arch. Biochem. Biophys.* 318(1):166-174.
- Maltepe, E., J.V. Schmidt, D. Baunoch, C.A. Bradfield and M.C. Simon. 1997. Abnormal angiogenesis and responses to glucose and oxygen deprivation in mice lacking the protein ARNT. *Nature.* 386(6623):403-407.
- Manara, L., P. Coccia and T. Croci. 1982. Persistent tissue levels of TCDD in the mouse and their reduction as related to prevention of toxicity. *Drug Metab. Rev.* 13(3):423-446.
- Manchester, D.K., S.K. Gordon, C.L. Golas, E.A. Roberts and A.B. Okey. 1987. Ah receptor in human placenta: stabilization by molybdate and characterization of binding of 2,3,7,8-tetrachlorodibenzo-p-dioxin, 3-methylcholanthrene, and benzo(a)pyrene. *Cancer Res.* 47(18):4861-4868.
- Mann, P.C. 1997. Selected lesions of dioxin in laboratory rodents. *Toxicol. Pathol.* 25(1):72-79.
- Manson, M.M., E.A. Hudson, H.W. Ball, M.C. Barrett, H.L. Clark, D.J. Judah, R.D. Verschoyle and G.E. Neal. 1998. Chemoprevention of aflatoxin B1-induced carcinogenesis by indole-3-carbinol in rat liver--predicting the outcome using early biomarkers. *Carcinogenesis.* 19(10):1829-1836.
- Mantovani, A., A. Vecchi, W. Luini, M. Sironi, G.P. Candiani, F. Spreafico and S. Garattini. 1980. Effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin on macrophage and natural killer cell-mediated cytotoxicity in mice. *Biomedicine.* 32(4):200-204.
- Manz, A., J. Berger, J.H. Dwyer, D. Flesch-Janys, S. Nagel and H. Waltsgott. 1991. Cancer mortality among workers in chemical plant contaminated with dioxin. *Lancet.* 338(8773):959-964.
- Marinovich, M., C.R. Sirtori, C.L. Galli and R. Paoletti. 1983. The binding of 2,3,7,8-tetrachlorodibenzodioxin to plasma lipoproteins may delay toxicity in experimental hyperlipidemia. *Chem. Biol. Interact.* 45(3):393-399.
- Markowski, V.P., G. Zareba, S. Stern, C. Cox and B. Weiss. 2001. Altered operant responding for motor reinforcement and the determination of benchmark doses following perinatal exposure to low-level 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Environ. Health Perspect.* 109(6):621-627.



- Markowski, V.P., C. Cox, R. Preston and B. Weiss. 2002. Impaired cued delayed alternation behavior in adult rat offspring following exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin on gestation day 15. *Neurotoxicol. Teratol.* 24(2):209-218.
- Marks, G.S. 1985. Exposure to toxic agents: the heme biosynthetic pathway and hemoproteins as indicator. *Crit Rev. Toxicol.* 15(2):151-179.
- Marks, T.A. and R.E. Staples. 1980. Teratogenic evaluation of the symmetrical isomers of hexachlorobiphenyl (HCB) in the mouse. In: 20th Annual Meeting of the Teratology Society, Portsmouth, NH. 54A pp.
- Marks, T.A., G.L. Kimmel and R.E. Staples. 1981. Influence of symmetrical polychlorinated biphenyl isomers on embryo and fetal development in mice. I. Teratogenicity of 3, 3', 4, 4', 5, 5',-hexachlorobiphenyl. *Toxicol. Appl. Pharmacol.* 61(2):269-276.
- Marks, T.A., G.L. Kimmel and R.E. Staples. 1989. Influence of symmetrical polychlorinated biphenyl isomers on embryo and fetal development in mice. II. Comparison of 4,4'-dichlorobiphenyl, 3,3',4,4'-tetrachlorobiphenyl, 3,3',5,5'-tetrachlorobiphenyl, and 3,3',4,4'-tetramethylbiphenyl. *Fundam. Appl. Toxicol.* 13(4):681-693.
- Maronpot, R.R., C.A. Montgomery, Jr., G.A. Boorman and E.E. McConnell. 1986. National Toxicology Program nomenclature for hepatoproliferative lesions of rats. *Toxicol. Pathol.* 14(2):263-273.
- Maronpot, R.R., H.C. Pitot and C. Peraino. 1989. Use of rat liver altered focus models for testing chemicals that have completed two-year carcinogenicity studies. *Toxicol. Pathol.* 17(4 Pt 1):651-662.
- Maronpot, R.R., J.F. Foley, K. Takahashi, T. Goldsworthy, G. Clark, A. Tritscher, C. Portier and Lucier G. 1993. Dose response for TCDD promotion of hepatocarcinogenesis in rats initiated with DEN: histologic, biochemical, and cell proliferation endpoints. *Environ. Health Perspect.* 101(7):634-642.
- Marti, U., S.J. Burwen and A.L. Jones. 1989. Biological effects of epidermal growth factor, with emphasis on the gastrointestinal tract and liver: an update. *Hepatology.* 9(1):126-138.
- Martin, J.V. 1984. Lipid abnormalities in workers exposed to dioxin. *Br. J. Ind. Med.* 41(2):254-256.
- Martin, S.G., D.A. Thiel, J.W. Duncan and W.R. Lance. 1989. Evaluation of the effects of dioxin-contaminated sludges on eastern bluebirds and tree swallows. Report prepared by Nekoosa Papers, Inc, Port Edwards, WI.

- Marty, J., P. Lesca, A. Jaylet, C. Ardourel and J.L. Riviere. 1989. In vivo and in vitro metabolism of benzo(a)pyrene by the larva of the newt, *Pleurodeles waltl*. *Comp. Biochem. Physiol. C.* 93(2):213-219.
- Maruyama, W. and Y. Aoki. 2006. Estimated cancer risk of dioxins to humans using a bioassay and physiologically based pharmacokinetic model. *Toxicol. Appl. Pharmacol.* 214(2):188-198.
- Maruyama, W., K. Yoshida, T. Tanaka and J. Nakanishi. 2002. Possible range of dioxin concentration in human tissues: simulation with a physiologically based model. *J. Toxicol. Environ. Health A.* 65(24):2053-2073.
- Maruyama, W., K. Yoshida, T. Tanaka and J. Nakanishi. 2003. Simulation of dioxin accumulation in human tissues and analysis of reproductive risk. *Chemosphere.* 53(4):301-313.
- Mason, G. and S. Safe. 1986. Synthesis, biologic and toxic properties of 2,3,7,8-TCDD metabolites. *Chemosphere.* 15(9-12):2081-2083.
- Mason, G., K. Farrell, B. Keys, J. Piskorska-Pliszczynska, L. Safe and S. Safe. 1986. Polychlorinated dibenzo-p-dioxins: quantitative in vitro and in vivo structure-activity relationships. *Toxicology.* 41(1):21-31.
- Masten, S.A. and K.T. Shiverick. 1995. The Ah receptor recognizes DNA binding sites for the B cell transcription factor, BSAP: a possible mechanism for dioxin-mediated alteration of CD19 gene expression in human B lymphocytes. *Biochem. Biophys. Res. Co.* 212(1):27-34.
- Mastri, C. and Lucier G. 1983. Actions of hormonally active chemicals in the liver. In: *Endocrine Toxicology*, J.A. Thomas, Ed. Raven Press, New York, NY. pp. 335-355.
- Mastroiacovo, P., A. Spagnolo, E. Marni, L. Meazza, R. Bertollini, G. Segni and C. Borgna-Pignatti. 1988. Birth defects in the Seveso area after TCDD contamination. *JAMA.* 259(11):1668-1672.
- Masuda, Y. 1994. The Yusho rice oil poisoning incident. In: *Dioxins and Health*, A. Schecter, Ed. Plenum Press, New York, NY. pp. 633-659.
- Masuda, Y., H. Kuroki, K. Haraguchi and J. Nagayama. 1985. PCB and PCDF congeners in the blood and tissues of yusho and yu-cheng patients. *Environ. Health Perspect.* 59:53-58.
- Matsumura, F. 1994. How important is the protein phosphorylation pathway in the toxic expression of dioxin-type chemicals? *Biochem. Pharmacol.* 48(2):215-224.
- Matsumura, F. 2003. On the significance of the role of cellular stress response reactions in the toxic actions of dioxin. *Biochem. Pharmacol.* 66(4):527-540.

- Matsumura, F., E. Enan, D.Y. Dunlap, K.E. Pinkerton and J. Peake. 1997a. Altered in vivo toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in C-SRC deficient mice. *Biochem. Pharmacol.* 53(10):1397-1404.
- Matsumura, F., E. Enan, D.Y. Dunlap, Z. Wu and H. Osada. 1997b. Absence of selected signs of toxicity from TCDD-treated, c-src deficient mice. *Organohalogen Comp.* 34:292-295.
- Matthews, H.B. and R.L. Dedrick. 1984. Pharmacokinetics of PCBs. *Annu. Rev. Pharmacol. Toxicol.* 24:85-103.
- Matzke, G.R., R.F. Frye, J.J. Early, R.J. Straka and S.W. Carson. 2000. Evaluation of the influence of diabetes mellitus on antipyrine metabolism and CYP1A2 and CYP2D6 activity. *Pharmacotherapy.* 20(2):182-190.
- Max, S.R. and E.K. Silbergeld. 1987. Skeletal muscle glucocorticoid receptor and glutamine synthetase activity in the wasting syndrome in rats treated with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 87(3):523-527.
- May, G. 1973. Chloracne from the accidental production of tetrachlorodibenzodioxin. *Br. J. Ind. Med.* 30(3):276-283.
- May, G. 1982. Tetrachlorodibenzodioxin: a survey of subjects ten years after exposure. *Br. J. Ind. Med.* 39(2):128-135.
- Mayani, A., S. Barel, S. Soback and M. Almagor. 1997. Dioxin concentrations in women with endometriosis. *Hum. Reprod.* 12(2):373-375.
- Mayes, B.A., E.E. McConnell, B.H. Neal, M.J. Brunner, S.B. Hamilton, T.M. Sullivan, A.C. Peters, M.J. Ryan, J.D. Toft, A.W. Singer, J.F. Brown, Jr., R.G. Menton and J.A. Moore. 1998. Comparative carcinogenicity in Sprague-Dawley rats of the polychlorinated biphenyl mixtures Aroclors 1016, 1242, 1254, and 1260. *Toxicol. Sci.* 41(1):62-76.
- Mayura, K., C.B. Spainhour, L. Howie, S. Safe and T.D. Phillips. 1993. Teratogenicity and immunotoxicity of 3,3',4,4',5-pentachlorobiphenyl in C57BL/6 mice. *Toxicology.* 77(1-2):123-131.
- McConnell, E.E. 1980. Acute and chronic toxicity, carcinogenesis, reproduction, teratogenesis and mutagenesis in animals. In: *Halogenated Biphenyls, Perphenyls, Naphthalenes, Dibenzodioxins, and Related Products*, R.D. Kimbrough, Ed. Elsevier Science Publishers, Amsterdam. pp. 109-150.
- McConnell, E.E. and J.A. Moore. 1979. Toxicopathology characteristics of the halogenated aromatics. *Ann. N. Y. Acad. Sci.* 320:138-150.

- McConnell, E.E., J.A. Moore and D.W. Dalgard. 1978a. Toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin in rhesus monkeys (*Macaca mulatta*) following a single oral dose. *Toxicol. Appl. Pharmacol.* 43(1):175-187.
- McConnell, E.E., J.A. Moore, J.K. Haseman and M.W. Harris. 1978b. The comparative toxicity of chlorinated dibenzo-p-dioxins in mice and guinea pigs. *Toxicol. Appl. Pharmacol.* 44(2):335-356.
- McConnell, E.E., J.A. Moore, B.N. Gupta, A.H. Rakes, M.I. Luster, J.A. Goldstein, J.K. Haseman and C.E. Parker. 1980. The chronic toxicity of technical and analytical pentachlorophenol in cattle. I. Clinicopathology. *Toxicol. Appl. Pharmacol.* 52(3):468-490.
- McConnell, E.E., G.W. Lucier, R.C. Rumbaugh, P.W. Albro, D.J. Harvan, J.R. Hass and M.W. Harris. 1984. Dioxin in soil: bioavailability after ingestion by rats and guinea pigs. *Science.* 223(4640):1077-1079.
- McEwen, B.S. 1978. Sexual maturation and differentiation: the role of the gonadal steroids. *Prog. Brain Res.* 48:291-308.
- McEwen, B.S., I. Lieberburg, C. Chaptal and L.C. Krey. 1977. Aromatization: important for sexual differentiation of the neonatal rat brain. *Horm. Behav.* 9(3):249-263.
- McGrath, L.F., K.R. Cooper, P. Georgopoulos and M.A. Gallo. 1995. Alternative models for low dose-response analysis of biochemical and immunological endpoints for tetrachlorodibenzo-p-dioxin. *Regul. Toxicol. Pharmacol.* 21(3):382-396.
- McGregor, D.B., C. Partensky, J. Wilbourn and J.M. Rice. 1998. An IARC evaluation of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans as risk factors in human carcinogenesis. *Environ. Health Perspect.* 106 Suppl 2:755-760.
- McKinley, M.K., L.B. Kedderis and L.S. Birnbaum. 1993. The effect of pretreatment on the biliary excretion of 2,3,7,8-tetrachlorodibenzo-p-dioxin, 2,3,7,8-tetrachlorodibenzofuran, and 3,3',4,4'-tetrachlorobiphenyl in the rat. *Fundam. Appl. Toxicol.* 21(4):425-432.
- McKinney, J.D., K. Chae, S.J. Oatley and C.C. Blake. 1985. Molecular interactions of toxic chlorinated dibenzo-p-dioxins and dibenzofurans with thyroxine binding prealbumin. *J. Med. Chem.* 28(3):375-381.
- McLachlan, M.S. 1993. Digestive tract absorption of polychlorinated dibenzo-p-dioxins, dibenzofurans, and biphenyls in a nursing infant. *Toxicol. Appl. Pharmacol.* 123(1):68-72.
- McMichael, A.J. 1976. Standardized mortality ratios and the "healthy worker effect": Scratching beneath the surface. *J. Occup. Med.* 18(3):165-168.

- McNulty, W.P. 1977. Toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin for rhesus monkeys: brief report. *Bull. Environ. Contam Toxicol.* 18(1):108-109.
- McNulty, W.P. 1984. Fetotoxicity of 2, 3, 7, 8-tetrachlorodibenzo-p-dioxin for Rhesus macaques (*Macaca mulatta*). *Am. J. Primatol.* 6:41-47.
- McNulty, W.P. 1985. Toxicity and fetotoxicity of TCDD, TCDF and PCB isomers in rhesus macaques (*Macaca mulatta*). *Environ. Health Perspect.* 60:77-88.
- McNulty, W.P., K.A. Nielsen-Smith, J.O. Lay, Jr., D.L. Lippstreu, N.L. Kangas, P.A. Lyon and M.L. Gross. 1982. Persistence of TCDD in monkey adipose tissue. *Food Chem. Toxicol.* 20(6):985-986.
- Mebus, C.A., V.R. Reddy and W.N. Piper. 1987. Depression of rat testicular 17-hydroxylase and 17,20-lyase after administration of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Biochem. Pharmacol.* 36(5):727-731.
- Meistrich, M.L. 1992. A method for quantitative assessment of reproductive risks to the human male. *Fundam. Appl. Toxicol.* 18(4):479-490.
- Merlo, F. and R. Puntoni. 1986. Soft-tissue sarcomas, malignant lymphomas, and 2,3,7,8-TCDD exposure in Seveso. *Lancet.* 2(8521-22):1455.
- Merlo, F., R. Puntoni and L. Santi. 1986. The Seveso episode: the validity of epidemiological inquiries in relation with the definition of the population at risk. *Chemosphere.* 15(9-12):1777-1786.
- Mes, J., D.L. Arnold and F. Bryce. 1995. Postmortem tissue levels of polychlorinated biphenyls in female rhesus monkeys after more than six years of daily dosing with Aroclor 1254 and in their non-dosed offspring. *Arch. Environ. Contam. Toxicol.* 29(1):69-76.
- Metzler, M. 1984. Metabolism of stilbene estrogens and steroidal estrogens in relation to carcinogenicity. *Arch. Toxicol.* 55(2):104-109.
- Meyer, B.K. and G.H. Perdew. 1999. Characterization of the AhR-hsp90-XAP2 core complex and the role of the immunophilin-related protein XAP2 in AhR stabilization. *Biochemistry.* 38(28):8907-8917.
- Meyer, B.K., M.G. Pray-Grant, J.P. Vanden Heuvel and G.H. Perdew. 1998. Hepatitis B virus X-associated protein 2 is a subunit of the unliganded aryl hydrocarbon receptor core complex and exhibits transcriptional enhancer activity. *Mol. Cell Biol.* 18(2):978-988.
- Meyer, M.E., H. Gronemeyer, B. Turcotte, M.T. Bocquel, D. Tasset and P. Chambon. 1989. Steroid hormone receptors compete for factors that mediate their enhancer function. *Cell.* 57(3):433-442.

- Michalek, J.E. 1989. The value of epidemiology. *Appl. Ind. Hygiene. Special Issue*:68-72.
- Michalek, J.E. and R.C. Tripathi. 1999. Pharmacokinetics of TCDD in veterans of Operation Ranch Hand: 15-year follow-up. *J. Toxicol. Environ. Health A*. 57(6):369-378.
- Michalek, J.E., W.H. Wolfe and J.C. Miner. 1990. Health status of Air Force veterans occupationally exposed to herbicides in Vietnam. II. Mortality. *JAMA*. 264(14):1832-1836.
- Michalek, J.E., J.L. Pirkle, S.P. Caudill, R.C. Tripathi, D.G. Patterson, Jr. and L.L. Needham. 1996. Pharmacokinetics of TCDD in veterans of Operation Ranch Hand: 10-year follow-up. *J. Toxicol. Environ. Health*. 47(3):209-220.
- Michalek, J.E., A.J. Rahe and C.A. Boyle. 1998a. Paternal dioxin and the sex of children fathered by veterans of Operation Ranch Hand. *Epidemiology*. 9(4):474-475.
- Michalek, J.E., A.J. Rahe and C.A. Boyle. 1998b. Paternal dioxin, preterm birth, intrauterine growth retardation, and infant death. *Epidemiology*. 9(2):161-167.
- Michalek, J.E., A.J. Rahe, P.M. Kulkarni and R.C. Tripathi. 1998c. Levels of 2,3,7,8-tetrachlorodibenzo-p-dioxin in 1,302 unexposed Air Force Vietnam-era veterans. *J. Expo. Anal. Environ. Epidemiol*. 8(1):59-64.
- Michalek, J.E., N.S. Ketchum and F.Z. Akhtar. 1998d. Postservice mortality of US Air Force veterans occupationally exposed to herbicides in Vietnam: 15-year follow-up. *Am. J. Epidemiol*. 148(8):786-792.
- Michalek, J.E., F.Z. Akhtar and J.L. Kiel. 1999a. Serum dioxin, insulin, fasting glucose, and sex hormone-binding globulin in veterans of Operation Ranch Hand. *J. Clin. Endocrinol. Metab*. 84(5):1540-1543.
- Michalek, J.E., N.S. Ketchum and I.J. Check. 1999b. Serum dioxin and immunologic response in veterans of Operation Ranch Hand. *Am. J. Epidemiol*. 149(11):1038-1046.
- Michalek, J.E., J.L. Pirkle, L.L. Needham, D.G. Patterson, Jr., S.P. Caudill, R.C. Tripathi and P. Mocarelli. 2002. Pharmacokinetics of 2,3,7,8-tetrachlorodibenzo-p-dioxin in Seveso adults and veterans of operation Ranch Hand. *J. Expo. Anal. Environ. Epidemiol*. 12(1):44-53.
- Michalek, J.E., N.S. Ketchum and R.C. Tripathi. 2003. Diabetes mellitus and 2,3,7,8-tetrachlorodibenzo-p-dioxin elimination in veterans of Operation Ranch Hand. *J. Toxicol. Environ. Health A*. 66(3):211-221.

- Michnovicz, J.J. and H.L. Bradlow. 1990. Induction of estradiol metabolism by dietary indole-3-carbinol in humans. *J. Natl. Cancer Inst.* 82(11):947-949.
- Michnovicz, J.J. and H.L. Bradlow. 1991. Altered estrogen metabolism and excretion in humans following consumption of indole-3-carbinol. *Nutr. Cancer.* 16(1):59-66.
- mich-Ward, H., C. Hertzman, K. Teschke, R. Hershler, S.A. Marion, A. Ostry and S. Kelly. 1996. Reproductive effects of paternal exposure to chlorophenolate wood preservatives in the sawmill industry. *Scand. J. Work Environ. Health.* 22(4):267-273.
- Micka, J., A. Milatovich, A. Menon, G.A. Grabowski, A. Puga and D.W. Nebert. 1997. Human Ah receptor (AHR) gene: localization to 7p15 and suggestive correlation of polymorphism with CYP1A1 inducibility. *Pharmacogenetics.* 7(2):95-101.
- Milham, S., Jr. 1976. Neoplasia in the wood and pulp industry. *Ann. N. Y. Acad. Sci.* 271:294-300.
- Milham, S., Jr. and R.Y. Demers. 1984. Mortality among pulp and paper workers. *J. Occup. Med.* 26(11):844-846.
- Miller, A.G., D. Israel and J.P. Whitlock, Jr. 1983. Biochemical and genetic analysis of variant mouse hepatoma cells defective in the induction of benzo(a)pyrene-metabolizing enzyme activity. *J. Biol. Chem.* 258(6):3523-3527.
- Miller, C.P. and L.S. Birnbaum. 1986. Teratologic evaluation of hexabrominated naphthalenes in C57BL/6N mice. *Fundam. Appl. Toxicol.* 7(3):398-405.
- Miller, E.C., J.A. Miller, R.R. Brown and J.C. MacDonald. 1958. On the protective action of certain polycyclic aromatic hydrocarbons against carcinogenesis by aminoazo dyes and 2-acetylaminofluorene. *Cancer Res.* 18(4):469-477.
- Miller, L.V., J.D. Stokes and C. Silpipat. 1978. Diabetes mellitus and autonomic dysfunction after vacor rodenticide ingestion. *Diabetes Care.* 1(2):73-76.
- Miller, R.W. 1985. Congenital PCB poisoning: a reevaluation. *Environ. Health Perspect.* 60:211-214.
- Miller, R.W. and W.J. Blot. 1972. Small head size after in-utero exposure to atomic radiation. *Lancet.* 2(7781):784-787.
- Millis, C.D., R.A. Mills, S.D. Sleight and S.D. Aust. 1985. Toxicity of 3,4,5,3',4',5'-hexabrominated biphenyl and 3,4,3',4'-tetrabrominated biphenyl. *Toxicol. Appl. Pharmacol.* 78(1):88-95.
- Mills, R.A., C.D. Millis, G.A. Dannan, F.P. Guengerich and S.D. Aust. 1985. Studies on the structure-activity relationships for the metabolism of polybrominated biphenyls by rat liver microsomes. *Toxicol. Appl. Pharmacol.* 78(1):96-104.

- Mimura, J., K. Yamashita, K. Nakamura, M. Morita, T.N. Takagi, K. Nakao, M. Ema, K. Sogawa, M. Yasuda, M. Katsuki and Y. Fujii-Kuriyama. 1997. Loss of teratogenic response to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in mice lacking the Ah (dioxin) receptor. *Genes Cells*. 2(10):645-654.
- Mimura, J., M. Ema, K. Sogawa and Y. Fujii-Kuriyama. 1999. Identification of a novel mechanism of regulation of Ah (dioxin) receptor function. *Genes Dev*. 13(1):20-25.
- Missouri Division of Health. 1983. Missouri Dioxin Health Studies Progress Report. Missouri Division of Health, Centers for Disease Control, St. Joseph's Hospital of Kirkwood, St. Louis University Hospital.
- Mittler, J.C., N.H. Ertel, R.X. Peng, C.S. Yang and T. Kiernan. 1984. Changes in testosterone hydroxylase activity in rat testis following administration of 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Ann. N. Y. Acad. Sci*. 438:645-648.
- Mocarelli, P., A. Marocchi, P. Brambilla, P. Gerthoux, D.S. Young and N. Mantel. 1986. Clinical laboratory manifestations of exposure to dioxin in children. A six-year study of the effects of an environmental disaster near Seveso, Italy. *JAMA*. 256(19):2687-2695.
- Mocarelli, P., F. Pocchiari and N. Nelson. 1988. Preliminary report: 2,3,7,8-tetrachlorodibenzo-p-dioxin. Exposure to humans--Seveso, Italy. *MMWR Morb. Mortal. Wkly. Rep*. 37:733-736.
- Mocarelli, P., L.L. Needham, A. Marocchi, D.G. Patterson, Jr., P. Brambilla, P.M. Gerthoux, L. Meazza and V. Carreri. 1991. Serum concentrations of 2,3,7,8-tetrachlorodibenzo-p-dioxin and test results from selected residents of Seveso, Italy. *J. Toxicol. Environ. Health*. 32(4):357-366.
- Mocarelli, P., P. Brambilla, P.M. Gerthoux, D.G. Patterson, Jr. and L.L. Needham. 1996. Change in sex ratio with exposure to dioxin. *Lancet*. 348(9024):409.
- Mocarelli, P., P.M. Gerthoux, E. Ferrari, D.G. Patterson, Jr., S.M. Kieszak, P. Brambilla, N. Vincoli, S. Signorini, P. Tramacere, V. Carreri, E.J. Sampson, W.E. Turner and L.L. Needham. 2000. Paternal concentrations of dioxin and sex ratio of offspring. *Lancet*. 355(9218):1858-1863.
- Moolgavkar, S.H. and A.G. Knudson, Jr. 1981. Mutation and cancer: a model for human carcinogenesis. *J. Natl. Cancer Inst*. 66(6):1037-1052.
- Moolgavkar, S.H., E.G. Luebeck, A. Buchmann and K.W. Bock. 1996. Quantitative analysis of enzyme-altered liver foci in rats initiated with diethylnitrosamine and promoted with 2,3,7,8-tetrachlorodibenzo-p-dioxin or 1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol*. 138(1):31-42.



- Moore, J.A., B.N. Gupta, J.G. Zinkl and J.G. Vos. 1973. Postnatal effects of maternal exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Environ. Health Perspect.* 5:81-85.
- Moore, J.A., M.W. Harris and P.W. Albro. 1976. Tissue distribution of [<sup>14</sup>C] tetrachlorodibenzo-*p*-dioxin in pregnant and neonatal rats. *Toxicol. Appl. Pharmacol.* 37(2):146-147.
- Moore, J.A., E.E. McConnell, D.W. Dalgard and M.W. Harris. 1979. Comparative toxicity of three halogenated dibenzofurans in guinea pigs, mice, and rhesus monkeys. *Ann. N. Y. Acad. Sci.* 320:151-163.
- Moore, R.W. and R.E. Peterson. 1985. Enhanced catabolism and elimination of androgens do not cause the androgenic deficiency in 2,3,7,8-tetrachlorodibenzo-p-dioxin-treated rats. *Fed. Proc.* 44:518.
- Moore, R.W. and R.E. Peterson. 1988. Androgen catabolism and excretion in 2,3,7,8-tetrachlorodibenzo-p-dioxin-treated rats. *Biochem. Pharmacol.* 37(3):560-562.
- Moore, R.W., C.L. Potter, H.M. Theobald, J.A. Robinson and R.E. Peterson. 1985. Androgenic deficiency in male rats treated with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 79(1):99-111.
- Moore, R.W., J.A. Parsons, R.C. Bookstaff and R.E. Peterson. 1989. Plasma concentrations of pituitary hormones in 2,3,7,8-tetrachlorodibenzo-p-dioxin-treated male rats. *J. Biochem. Toxicol.* 4(3):165-172.
- Moore, R.W., C.R. Jefcoate and R.E. Peterson. 1991. 2,3,7,8-Tetrachlorodibenzo-p-dioxin inhibits steroidogenesis in the rat testis by inhibiting the mobilization of cholesterol to cytochrome P450<sub>sc</sub>. *Toxicol. Appl. Pharmacol.* 109(1):85-97.
- Moore, R.W., R.C. Bookstaff, T.A. Mably and R.E. Peterson. 1992a. Differential effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on responsiveness of male rats to androgens, 17 $\beta$ -estradiol, luteinizing hormone, gonadotropin releasing hormone, and progesterone. *Chemosphere.* 25(1-2):91-94.
- Moore, R.W., T.A. Mably and D.L. Bjerke. 1992b. In utero and lactational 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) exposure decreased androgenic responsiveness of male sex organs and permanently inhibits spermatogenesis and demasculinizes sexual behavior in rats. *Toxicologist.* 12(1):81.
- Morbidity and Mortality Weekly Report. 1988. Serum 2,3,7,8-tetrachlorodibenzo-p-dioxin levels in Air Force health study participants—preliminary report. *Morbidity and Mortality Weekly Report*, Vol. 37, Issue 20. Centers for Disease Control and Prevention, Atlanta, GA. pp. 309-311. 37(20).

- Morgan, J.E. and J.P. Whitlock, Jr. 1992. Transcription-dependent and transcription-independent nucleosome disruption induced by dioxin. *Proc. Natl. Acad. Sci. U. S. A.* 89(23):11622-11626.
- Morita, K., H. Hirakawa, T. Matsueda, T. Iida and H. Tokiwa. 1993. [Stimulating effect of dietary fiber on fecal excretion of polychlorinated dibenzofurans (PCDF) and polychlorinated dibenzo-p-dioxins (PCDD) in rats]. *Fukuoka Igaku Zasshi.* 84(5):273-281.
- Morita, K., T. Matsueda and T. Iida. 1995. [Effect of dietary fiber on fecal excretion and liver distribution of PCDF in rats]. *Fukuoka Igaku Zasshi.* 86(5):218-225.
- Morita, K., T. Matsueda, T. Iida and T. Hasegawa. 1999. *Chlorella* accelerates dioxin excretion in rats. *J. Nutr.* 129(9):1731-1736.
- Morris, D.L. and M.P. Holsapple. 1991. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on humoral immunity: II. B cell activation. *Immunopharmacology.* 21(3):171-181.
- Morris, D.L., S.D. Jordan and M.P. Holsapple. 1991. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on humoral immunity: I. Similarities to *Staphylococcus aureus* Cowan Strain I (SAC) in the in vitro T-dependent antibody response. *Immunopharmacology.* 21(3):159-169.
- Morris, D.L., N.K. Snyder, V. Gokani, R.E. Blair and M.P. Holsapple. 1992. Enhanced suppression of humoral immunity in DBA/2 mice following subchronic exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Toxicol. Appl. Pharmacol.* 112(1):128-132.
- Morris, D.L., H.G. Jeong, W.D. Stevens, Y.J. Chun, J.G. Karras and M.P. Holsapple. 1994. Serum modulation of the effects of TCDD on the in vitro antibody response and on enzyme induction in primary hepatocytes. *Immunopharmacology.* 27(2):93-105.
- Morrissey, R.E. and B.A. Schwetz. 1989. Reproductive and developmental toxicity in animals. In: *Halogenated Biphenyls, Terphenyls, Naphthalenes, Dibenzodioxins and Related Products*, 2nd ed., R. Kimbrough and A.A. Jensen, Eds. Elsevier, Amsterdam. pp. 195-225.
- Morrissey, R.E., M.W. Harris, J.J. Diliberto and L.S. Birnbaum. 1992. Limited PCB antagonism of TCDD-induced malformations in mice. *Toxicol. Lett.* 60(1):19-25.
- Morse, D.C., D. Groen, M. Veerman, C.J. van Amerongen, H.B. Koeter, A.E. Smits van Prooijje, T.J. Visser, J.H. Koeman and A. Brouwer. 1993. Interference of polychlorinated biphenyls in hepatic and brain thyroid hormone metabolism in fetal and neonatal rats. *Toxicol. Appl. Pharmacol.* 122(1):27-33.

- Morse, D.C., E.K. Wehler, W. Wesseling, J.H. Koeman and A. Brouwer. 1996. Alterations in rat brain thyroid hormone status following pre- and postnatal exposure to polychlorinated biphenyls (Aroclor 1254). *Toxicol. Appl. Pharmacol.* 136(2):269-279.
- Moser, G.A. and M.S. McLachlan. 1999. A non-absorbable dietary fat substitute enhances elimination of persistent lipophilic contaminants in humans. *Chemosphere.* 39(9):1513-1521.
- Moser, G.A. and M.S. McLachlan. 2001. The influence of dietary concentration on the absorption and excretion of persistent lipophilic organic pollutants in the human intestinal tract. *Chemosphere.* 45(2):201-211.
- Moses, M. and P.G. Prioleau. 1985. Cutaneous histologic findings in chemical workers with and without chloracne with past exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *J. Am. Acad. Dermatol.* 12:497-506.
- Moses, M., R. Lilis, K.D. Crow, J. Thornton, A. Fischbein, H.A. Anderson and I.J. Selikoff. 1984. Health status of workers with past exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin in the manufacture of 2,4,5-trichlorophenoxyacetic acid: comparison of findings with and without chloracne. *Am. J. Ind. Med.* 5(3):161-182.
- Mukerjee, D. 1998. Health impact of polychlorinated dibenzo-p-dioxins: a critical review. *J. Air Waste Manag. Assoc.* 48(2):157-165.
- Mukku, V.R. 1984. Regulation of epidermal growth factor receptor levels by thyroid hormone. *J. Biol. Chem.* 259(10):6543-6547.
- Mukku, V.R. and G.M. Stancel. 1985. Regulation of epidermal growth factor receptor by estrogen. *J. Biol. Chem.* 260(17):9820-9824.
- Murai, K., K. Okamura, H. Tsuji, E. Kajiwara, H. Watanabe, K. Akagi and M. Fujishima. 1987. Thyroid function in "Yusho" patients exposed to polychlorinated biphenyls (PCB). *Environ. Res.* 44(2):179-187.
- Murray, F.J., F.A. Smith, K.D. Nitschke, C.G. Humiston, R.J. Kociba and B.A. Schwetz. 1979. Three-generation reproduction study of rats given 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in the diet. *Toxicol. Appl. Pharmacol.* 50(2):241-252.
- Murre, C., G. Bain, M.A. van Dijk, I. Engel, B.A. Furnari, M.E. Massari, J.R. Matthews, M.W. Quong, R.R. Rivera and M.H. Stuiver. 1994. Structure and function of helix-loop-helix proteins. *Biochim. Biophys. Acta.* 1218(2):129-135.
- Murrell, J.A., C.J. Portier and R.W. Morris. 1998. Characterizing dose-response: I: Critical assessment of the benchmark dose concept. *Risk Anal.* 18(1):13-26.

- Muzi, G., J.R. Gorski and K. Rozman. 1989. Mode of metabolism is altered in 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)-treated rats. *Toxicol. Lett.* 47(1):77-86.
- Nadler, R.D. 1969. Differentiation of the capacity for male sexual behavior in the rat. *Horm. Behav.* 1:53-63.
- Nagao, T., G. Golor, H. Hagenmaier and D. Neubert. 1993. Teratogenic potency of 2,3,4,7,8-pentachlorodibenzofuran and of three mixtures of polychlorinated dibenzo-p-dioxins and dibenzofurans in mice. Problems with risk assessment using TCDD toxic-equivalency factors. *Arch. Toxicol.* 67(9):591-597.
- Nagarkatti, P.S., G.D. Sweeney, J. Gauldie and D.A. Clark. 1984. Sensitivity to suppression of cytotoxic T cell generation by 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) is dependent on the Ah genotype of the murine host. *Toxicol. Appl. Pharmacol.* 72(1):169-176.
- Nagayama, J., C. Kiyohara, Y. Masuda and M. Kuratsune. 1985. Genetically mediated induction of aryl hydrocarbon hydroxylase activity in human lymphoblastoid cells by polychlorinated dibenzofuran isomers and 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Arch. Toxicol.* 56(4):230-235.
- Nagayama, J., K. Okamura, T. Iida, H. Hirakawa, T. Matsueda, H. Tsuji, M. Hasegawa, K. Sato, H.Y. Ma, T. Yanagawa, H. Igarashi, J. Fukushima and T. Watanabe. 1998. Postnatal exposure to chlorinated dioxins and related chemicals on thyroid hormone status in Japanese breast-fed infants. *Chemosphere.* 37(9-12):1789-1793.
- Nagel, S., J. Berger, D. Flesch-Janys, A. Manz and I. Ollroge. 1994. Mortality and cancer mortality in a cohort of female workers of a herbicide producing plant exposed to polychlorinated dibenzo-p-dioxins and furans. *Informatick Biomet. Epidemiol. Med. Biol.* 25:32-38.
- Nakai, J.S. and N.J. Bunce. 1995. Characterization of the Ah receptor from human placental tissue. *J. Biochem. Toxicol.* 10(3):151-159.
- Nakanishi, Y., N. Shigematsu, Y. Kurita, K. Matsuba, H. Kanegae, S. Ishimaru and Y. Kawazoe. 1985. Respiratory involvement and immune status in yusho patients. *Environ. Health Perspect.* 59:31-36.
- Nakayama, J., Y. Hori, S. Toshitani and M. Asahi. 1993. [Dermatological findings in the annual examination of the patients with Yusho in 1991-1992]. *Fukuoka Igaku Zasshi.* 84(5):294-299.
- Nakayama, J., Y. Hori, S. Toshitani and M. Asahi. 1995. [Dermatological findings in the annual examination of the patients with Yusho in 1993-1994]. *Fukuoka Igaku Zasshi.* 86(5):277-281.

- Narasimhan, T.R., A. Craig, L. Arellano, N. Harper, L. Howie, M. Menache, L. Birnbaum and S. Safe. 1994. Relative sensitivities of 2,3,7,8-tetrachlorodibenzo-p-dioxin-induced Cyp1a-1 and Cyp1a-2 gene expression and immunotoxicity in female B6C3F1 mice. *Fundam. Appl. Toxicol.* 23(4):598-607.
- NAS/IOM (National Academy of Science/Institute of Medicine). 2003. *Dioxins and Dioxin-Like Compounds in the Food Supply: Strategies to Decrease Exposure*. The National Academy Press, Washington, DC.
- NAS/NRC (National Academy of Sciences/National Research Council). 1983. *Risk Assessment in the Federal Government: Managing the Process*. National Academy Press, Washington, DC.
- NAS/NRC (National Academy of Sciences/National Research Council). 1994. *Science and Judgment in Risk Assessment*. The National Academy of Sciences, Washington, DC.
- NAS/NRC (National Academy of Sciences/National Research Council). 1999. *Arsenic in Drinking Water*. The National Academy Press, Washington, DC.
- National Diabetes Data Group. 1979. Classification and diagnosis of diabetes mellitus and other categories of glucose intolerance. *Diabetes.* 28:1039-1057.
- Nau, H. and R. Bass. 1981. Transfer of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) to the mouse embryo and fetus. *Toxicology.* 20(4):299-308.
- Nau, H., R. Bass and D. Neubert. 1986. Transfer of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) via placenta and milk, and postnatal toxicity in the mouse. *Arch. Toxicol.* 59(1):36-40.
- Nauman, C.H. and J.L. Schaum. 1987. Human exposure estimation for 2,3,7,8-TCDD. *Chemosphere.* 16(8/9):1851-1856.
- NCHS (National Center for Health Statistics). 1999. *Health, United States, 1999 With Health and Aging Chartbook*. National Center for Health Statistics, Hyattsville, MD.
- NCI (National Cancer Institute). 1979a. Bioassay of dibenzo-*p*-dioxin for possible carcinogenicity (CAS No 262-12-4). NCI Technical Report Series. U.S. Department of Health, Education and Welfare, National Institutes of Health, Bethesda, MD. No. 122.
- NCI (National Cancer Institute). 1979b. Bioassay of dichlorodibenzo-*p*-dioxin for possible carcinogenicity (CAS No 33857-26-0). NCI Technical Report Series. National Institutes of Health, Bethesda, MD. No. 123.
- Neal, R.A., P.W. Beatty and T.A. Gasiewicz. 1979. Studies of the mechanisms of toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Ann. N. Y. Acad. Sci.* 320:204-213.

Neal, R.A., J.R. Olson, T.A. Gasiewicz and L.E. Geiger. 1982. The toxicokinetics of 2, 3, 7, 8-tetrachlorodibenzo-p-dioxin in mammalian systems. *Drug Metab. Rev.* 13(3):355-385.

Nebert, D.W. 1989. The Ah locus: genetic differences in toxicity, cancer, mutation, and birth defects. *Crit Rev. Toxicol.* 20(3):153-174.

Nebert, D.W. and J.E. Gielen. 1972. Genetic regulation of aryl hydrocarbon hydroxylase induction in the mouse. *Fed. Proc.* 31(4):1315-1325.

Nebert, D.W., D.D. Petersen and A.J. Fornace, Jr. 1990. Cellular responses to oxidative stress: the [Ah] gene battery as a paradigm. *Environ. Health Perspect.* 88(13):25.

Nebert, D.W., D.D. Petersen and A. Puga. 1991. Human AH locus polymorphism and cancer: inducibility of CYP1A1 and other genes by combustion products and dioxin. *Pharmacogenetics.* 1(2):68-78.

Nebert, D.W., A.L. Roe, M.Z. Dieter, W.A. Solis, Y. Yang and T.P. Dalton. 2000. Role of the aromatic hydrocarbon receptor and [Ah] gene battery in the oxidative stress response, cell cycle control, and apoptosis. *Biochem. Pharmacol.* 59(1):65-85.

Nebert, D.W., R.A. McKinnon and A. Puga. 1996. Human drug-metabolizing enzyme polymorphisms: effects on risk of toxicity and cancer. *DNA Cell Biol.* 15(4):273-280.

Needham, L.L., D.G. Patterson and V.N. Houk. 1991. Levels of TCDD in selected human populations and their relevance to human risk assessment. In: *Banbury Report 35: Biological Basis for Risk Assessment of Dioxins and Related Compounds*, M.A. Gallo, R. Scheuplein and K. van der Heijden, Eds. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. pp. 229-257.

Needham, L.L., P.M. Gerthoux, D.G. Patterson, Jr., P. Brambilla, J.L. Pirkle, P.L. Tramacere, W.E. Turner, C. Bertetta, E.J. Sampson and P. Mocarelli. 1994. Half-life of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin in serum of Seveso adults: interim report. *Organohalogen Comp.* 21:81-85.

Needham, L.L., P.M. Gerthoux, D.G. Patterson, Jr., P. Brambilla, W.E. Turner, C. Beretta, J.L. Pirkle, L. Colombo, E.J. Sampson, P.L. Tramacere, S. Signorini, L. Meazza, V. Carreri, R.J. Jackson and P. Mocarelli. 1997. Serum dioxin levels in Seveso, Italy, population in 1976. *Teratog. Carcinog. Mutagen.* 17(4-5):225-240.

Needham, L.L., P.M. Gerthoux, D.G. Patterson, Jr., P. Brambilla, S.J. Smith, E.J. Sampson and P. Mocarelli. 1999. Exposure assessment: serum levels of TCDD in Seveso, Italy. *Environ. Res.* 80(2 Pt 2):S200-S206.

Nelson, J.O., R.E. Menzer, P.C. Kearney and J.R. Pimmer. 1977. 2,3,7,8-tetrachlorodibenzo-*p*-dioxin: in vitro binding to rat liver microsomes. *Bull. Environ. Contam Toxicol.* 18(1):9-13.

- Nelson, K., A.E. Vickers, G.I. Sunahara and Lucier G. 1988. Receptor and DNA ploidy changes during promotion of rat liver carcinogenesis. In: *Tumor Promoters: Biological Approaches for Mechanistic Studies and Assay Systems*, R. Langenbach, E. Elmore and J.C. Barrett, Eds. Raven Press, New York, NY. pp. 387-405.
- Nemoto, N. and H.V. Gelboin. 1976. Enzymatic conjugation of benzo (a) pyrene oxides, phenols and dihydrodiols with UDP-glucuronic acid. *Biochem. Pharmacol.* 25(10):1221-1226.
- Ness, D.K., S. Schantz, J. Moshtaghian and L.G. Hansen. 1993. Effects of perinatal exposure to specific PCB congeners on thyroid hormone concentrations and thyroid histology in the rat. *Toxicol. Lett.* 68(3):311-323.
- Ness, D.K., S.L. Schantz and L.G. Hansen. 1994. PCB congeners in the rat brain: selective accumulation and lack of regionalization. *J. Toxicol. Environ. Health.* 43(4):453-468.
- Nessel, C.S., M.A. Amoruso, T.H. Umbreit and M.A. Gallo. 1990. Hepatic aryl hydrocarbon hydroxylase and cytochrome P450 induction following the transpulmonary absorption of TCDD from intratracheally instilled particles. *Fundam. Appl. Toxicol.* 15(3):500-509.
- Nessel, C.S., M.A. Amoruso, T.H. Umbreit, R.J. Meeker and M.A. Gallo. 1992. Pulmonary bioavailability and fine particle enrichment of 2,3,7,8-tetrachlorodibenzo-p-dioxin in respirable soil particles. *Fundam. Appl. Toxicol.* 19(2):279-285.
- Neuberger, M., W. Landvoigt and F. Derntl. 1991. Blood levels of 2,3,7,8-tetrachlorodibenzo-p-dioxin in chemical workers after chloracne and in comparison groups. *Int. Arch. Occup. Environ. Health.* 63(5):325-327.
- Neuberger, M., C. Rappe, S. Bergek, H. Cai, M. Hansson, R. Jager, M. Kundi, C.K. Lim, H. Wingfors and A.G. Smith. 1999. Persistent health effects of dioxin contamination in herbicide production. *Environ. Res.* 81(3):206-214.
- Neubert, D.W. 1991. Animal data on the toxicity of TCDD and special aspects of risk assessment. In: *WHO Consultation of Tolerable Daily Intake of PCDDS and PCDFs from Food*, Bilthoven, The Netherlands.
- Neubert, D. and I. Dillmann. 1972. Embryotoxic effects in mice treated with 2,4,5-trichlorophenoxyacetic acid and 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Naunyn Schmiedebergs Arch. Pharmacol.* 272(3):243-264.
- Neuhold, L.A., F.J. Gonzalez, A.K. Jaiswal and D.W. Nebert. 1986. Dioxin-inducible enhancer region upstream from the mouse P(1)450 gene and interaction with a heterologous SV40 promoter. *DNA.* 5(5):403-411.

- Neuhold, L.A., Y. Shirayoshi, K. Ozato, J.E. Jones and D.W. Nebert. 1989. Regulation of mouse CYP1A1 gene expression by dioxin: requirement of two cis-acting elements during induction. *Mol. Cell Biol.* 9(6):2378-2386.
- Neubert, D., T. Wiesmuller, K. Abraham, R. Krowke and H. Hagenmaier. 1990. Persistence of various polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDDs and PCDFs) in hepatic and adipose tissue of marmoset monkeys. *Arch. Toxicol.* 64(6):431-442.
- Neubert, R., G. Golor, R. Stahlmann, H. Helge and D. Neubert. 1992. Polyhalogenated dibenzo-p-dioxins and dibenzofurans and the immune system. 4. Effects of multiple-dose treatment with 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on peripheral lymphocyte subpopulations of a non-human primate (*Callithrix jacchus*). *Arch. Toxicol.* 66(4):250-259.
- Neubert, R., L. Maskow, J. Webb, U. Jacob-Muller, A.C. Nogueira, I. Delgado, H. Helge and D. Neubert. 1993. Chlorinated dibenzo-p-dioxins and dibenzofurans and the human immune system. 1. Blood cell receptors in volunteers with moderately increased body burdens. *Life Sci.* 53(26):1995-2006.
- Neubert, R., L. Maskow, I. Delgado, H. Helge and D. Neubert. 1995. Chlorinated dibenzo-p-dioxins and dibenzofurans and the human immune system. 2. In vitro proliferation of lymphocytes from workers with quantified moderately-increased body burdens. *Life Sci.* 56(6):421-436.
- Neumann, C.M., L.B. Steppan and N.I. Kerkvliet. 1992. Distribution of 2,3,7,8-tetrachlorodibenzo-p-dioxin in splenic tissue of C57BL/6J mice. *Drug Metab Dispos.* 20(3):467-469.
- Neumann, F., R. Berswordt-Wallrabe, W. Elger, H. Steinbeck, J.D. Hahn and M. Kramer. 1970. Aspects of androgen-dependent events as studied by antiandrogens. *Recent Prog. Horm. Res.* 26:337-410.
- Nguyen, T.A., D. Hoivik, J.E. Lee and S. Safe. 1999. Interactions of nuclear receptor coactivator/corepressor proteins with the aryl hydrocarbon receptor complex. *Arch. Biochem. Biophys.* 367(2):250-257.
- Nicklas, T.A. 1995. Dietary studies of children: the Bogalusa Heart Study experience. *J. Am. Diet. Assoc.* 95(10):1127-1133.
- Nicklas, T.A., L.S. Webber, S.R. Srinivasan and G.S. Berenson. 1993. Secular trends in dietary intakes and cardiovascular risk factors of 10-y-old children: the Bogalusa Heart Study (1973-1988). *Am. J. Clin. Nutr.* 57(6):930-937.
- Nicklas, T.A., C.C. Johnson, L. Meyers, L. Webber and G.S. Berenson. 1995. Eating patterns, nutrient intakes, and alcohol consumption patterns of young adults: the Bogalusa heart study. *Med. Exerc. Nutr. Health.* 4:316-324.



- Nie, M., A.L. Blankenship and J.P. Giesy. 2001. Interactions between aryl hydrocarbon receptor (AhR) and hypoxia signaling pathways. *Environ. Toxicol. Pharmacol.* 10(1-2):17-27.
- Nienstedt, W., M. Parkki, P. Uotila and A. Aitio. 1979. Effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin on the hepatic metabolism of testosterone in the rat. *Toxicology.* 13(3):233-236.
- Nikolaidis, E., B. Brunstrom and L. Dencker. 1988a. Effects of the TCDD congeners 3,3',4,4'-tetrachlorobiphenyl and 3,3',4,4'-tetrachloroazoxybenzene on lymphoid development in the bursa of Fabricius of the chick embryo. *Toxicol. Appl. Pharmacol.* 92(2):315-323.
- Nikolaidis, E., B. Brunstrom and L. Dencker. 1988b. Effects of TCDD and its congeners 3,3',4,4'-tetrachloroazoxybenzene and 3,3',4,4'-tetrachlorobiphenyl on lymphoid development in the thymus of avian embryos. *Pharmacol. Toxicol.* 63(5):333-336.
- Nikolaidis, E., B. Brunstrom, L. Dencker and T. Veromaa. 1990. TCDD inhibits the support of B-cell development by the bursa of Fabricius. *Pharmacol. Toxicol.* 67(1):22-26.
- Niwa, A., K. Kumaki and D.W. Nebert. 1975. Induction of aryl hydrocarbon-hydroxylase activity in various cell cultures by 2,3,7,8-p-dioxin. *Mol. Pharmacol.* 11:399-408.
- Nohl, H., D. de Silva and K.H. Summer. 1989. 2,3,7,8, tetrachlorodibenzo-p-dioxin induces oxygen activation associated with cell respiration. *Free Radic. Biol. Med.* 6(4):369-374.
- Nolan, R.J., F.A. Smith and J.G. Hefner. 1979. Elimination and tissue distribution of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in female guinea pigs following a single oral dose. *Toxicol. Appl. Pharmacol.* 48(1pt 2.):A162.
- Norback, D.H. and J.R. Allen. 1973. Biological responses of the nonhuman primate, chicken, and rat to chlorinated dibenzo-p-dioxin ingestion. *Environ. Health Perspect.* 5:233-240.
- Norback, D.H., J.F. Engblom and J.R. Allen. 1975. Tissue distribution and excretion of octachlorodibenzo-rho-dioxin in the rat. *Toxicol. Appl. Pharmacol.* 32(2):330-338.
- Noren, K., A. Lunden, J. Sjoball and A. Bergman. 1990. Coplanar polychlorinated biphenyls in Swedish human milk. *Chemosphere.* 20(7-9):935-941.

North Atlantic Treaty Organization and Committee on the Challenges of Modern Society. 1988. International toxicity equivalency factor (I-TEF) method of risk assessment for complex mixtures of dioxins and related compounds. Pilot study on international information exchange on dioxins and related compounds. North Atlantic Treaty Organization, Committee on the Challenges of Modern Society, Brussels, Belgium. Report No. 176.

Nosek, J.A., S.R. Craven, J.R. Sullivan, S.S. Hurley and R.E. Peterson. 1992. Toxicity and reproductive effects of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin in ring-necked pheasant hens. *J. Toxicol. Environ. Health.* 35(3):187-198.

Nosek, J.A., J.R. Sullivan, S.R. Craven, A. Gendron-Fitzpatrick and R.E. Peterson. 1993. Embryotoxicity of 2,3,7,8-tetrachloro-*p*-dioxin in the ring-necked pheasant. *Environ. Toxicol. Chem.* 12(7):1215-1222.

Notides, A.C., S. Sasson and S. Callison. 1985. An allosteric regulatory mechanism for estrogen 2 receptor activation. In: *Molecular mechanisms of steroid action*, V.K. Moudgill, Ed. Walter DeGruyter, Berlin, Germany. -173 pp.

NTP (National Toxicology Program). 1980. Bioassay of a mixture of 1,2,3,6,7,8-hexachlorodibenzo-*p*-dioxin and 1,2,3,7,8,9-hexachlorodibenzo-*p*-dioxin for possible carcinogenicity (gavage study) (CAS No 57653-85-7 and CAS No 19408-74-3). NCI Technical Report Series. U.S. Department of Health, Education and Welfare; Public Health Service, Research Triangle Park, NC. No 198. Available at [http://ntp.niehs.nih.gov/ntp/htdocs/LT\\_rpts/tr198.pdf](http://ntp.niehs.nih.gov/ntp/htdocs/LT_rpts/tr198.pdf).

NTP (National Toxicology Program). 1982a. Carcinogenesis bioassay of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (CAS No 1746-01-6) in Osborne-Mendel rats and B6C3F1 mice (gavage study). Technical Report Series. U.S. Department of Health and Human Services, Public Health Services, Research Triangle Park, NC. NTP Technical Report No. 201. NIH 82-1765. Available at [http://ntp.niehs.nih.gov/ntp/htdocs/LT\\_rpts/tr209.pdf](http://ntp.niehs.nih.gov/ntp/htdocs/LT_rpts/tr209.pdf).

NTP (National Toxicology Program). 1982b. Carcinogenesis bioassay of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (CAS No. 1746-01-6) in Swiss-Webster mice (dermal study). Technical Report Series. U.S. Department of Health and Human Services, Public Health Service, Research Triangle Park, NC. NTP Technical Report No. 201. NTP-80-32. NIH 82-1757. Available at [http://ntp.niehs.nih.gov/ntp/htdocs/LT\\_rpts/tr201.pdf](http://ntp.niehs.nih.gov/ntp/htdocs/LT_rpts/tr201.pdf).

NTP (National Toxicology Program). 1984. Report of the NTP Ad Hoc Panel on chemical carcinogenesis testing and evaluation. Board of Scientific Counselors; U.S. Department of Health, Education and Welfare; Public Health Service, Research Triangle Park, NC.

NTP (National Toxicology Program). 2000. Report on carcinogens, 9th edition. U.S. Department of Health and Human Services, Public Health Service, Research Triangle Park, NC.

NTP (National Toxicology Program). 2001. Report on carcinogens, 9th edition. Addendum. U.S. Department of Health and Human Services, Public Health Service, Research Triangle Park, NC. January 2001.

NTP (National Toxicology Program). 2006a. Toxicology and carcinogenesis studies of 3,3',4,4',5-Pentachlorobiphenyl (PCB126) (CAS No. 57465-28-8) in female Harlan Sprague-Dawley rats (gavage study). Technical Report Series. U.S. Department of Health and Human Services, Public Health Services, Research Triangle Park, NC. TR-520.

NTP (National Toxicology Program). 2006b. Toxicology and carcinogenesis studies of 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) (CAS No. 1746-01-6) in female Harlan Sprague-Dawley rats (gavage study). Technical Report Series. U.S. Department of Health and Human Services, Public Health Services, Research Triangle Park, NC. TR-521.

NTP (National Toxicology Program). 2006c. Toxicology and carcinogenesis studies of 2,3,4,7,8-Pentachlorodibenzo-furan (PeCDF) (CAS No. 57117-31-4) in female Harlan Sprague-Dawley rats (gavage study). Technical Report Series. U.S. Department of Health and Human Services, Public Health Services, Research Triangle Park, NC. TR-525.

NTP (National Toxicology Program). 2006d. Toxicology and carcinogenesis studies of a mixture of 3,3',4,4',5-pentachlorobiphenyl (PCB 126) (CAS No. 57465-28-8), 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) (CAS No. 1746-01-6), and 2,3,4,7,8-pentachlorodibenzo-furan (PeCDF) (CAS No. 57117-31-4) in female Harlan Sprague-Dawley rats (gavage study). Technical Report Series. U.S. Department of Health and Human Services, Public Health Service, Research Triangle Park, NC. TR-526.

Nygren, M., C. Rappe and G. Lindstrom. 1986. Identification of 2,3,7,8-substituted polychlorinated dioxins and dibenzofurans in environmental and human samples. In: Chlorinated Dioxins and Dibenzofurans in Perspective, C. Rappe, G. Choudhary and L. Keith, Eds. Lewis Publishers, Chelsea, MI. pp. 17-34.

O'Brien, T.R., P. Decoufle and C.A. Boyle. 1991. Non-Hodgkin's lymphoma in a cohort of Vietnam veterans. *Am. J. Public Health.* 81(6):758-760.

Oganesian, A., J.D. Hendricks and D.E. Williams. 1997. Long term dietary indole-3-carbinol inhibits diethylnitrosamine-initiated hepatocarcinogenesis in the infant mouse model. *Cancer Lett.* 118(1):87-94.

- Ohsako, S., Y. Miyabara, N. Nishimura, S. Kurosawa, M. Sakaue, R. Ishimura, M. Sato, K. Takeda, Y. Aoki, H. Sone, C. Tohyama and J. Yonemoto. 2001. Maternal exposure to a low dose of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) suppressed the development of reproductive organs of male rats: dose-dependent increase of mRNA levels of 5alpha-reductase type 2 in contrast to decrease of androgen receptor in the pubertal ventral prostate. *Toxicol. Sci.* 60(1):132-143.
- Okey, A.B., G.P. Bondy, M.E. Mason, G.F. Kahl, H.J. Eisen, T.M. Guenther and D.W. Nebert. 1979. Regulatory gene product of the Ah locus. Characterization of the cytosolic inducer-receptor complex and evidence for its nuclear translocation. *J. Biol. Chem.* 254(22):11636-11648.
- Okey, A.B., L.M. Vella and P.A. Harper. 1989a. Detection and characterization of a low affinity form of cytosolic Ah receptor in livers of mice nonresponsive to induction of cytochrome P1-450 by 3-methylcholanthrene. *Mol. Pharmacol.* 35(6):823-830.
- Okey, A.B., M.S. Denison, R.D. Prokipcak, E.A. Roberts and P.A. Harper. 1989b. Receptors of polycyclic aromatic hydrocarbons. In: *Biologie Prospective*, M.M. Galteau, G. Siest and J. Henny, Eds. John Libbey Eurotext, Paris, France. pp. 605-610.
- Okey, A.B., D.S. Riddick and P.A. Harper. 1994. The Ah receptor: mediator of the toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and related compounds. *Toxicol. Lett.* 70(1):1-22.
- Okey, A.B., J.V. Giannone, W. Smart, J.M. Wong, D.K. Manchester, N.B. Parker, M.M. Feeley, D.L. Grant and A. Gilman. 1997. Binding of 2,3,7,8-tetrachlorodibenzo-p-dioxin to AH receptor in placentas from normal versus abnormal pregnancy outcomes. *Chemosphere.* 34(5-7):1535-1547.
- Okino, S.T. and J.P. Whitlock, Jr. 1995. Dioxin induces localized, graded changes in chromatin structure: implications for Cyp1A1 gene transcription. *Mol. Cell Biol.* 15(7):3714-3721.
- Okino, S.T., U.R. Pendurthi and R.H. Tukey. 1992. Phorbol esters inhibit the dioxin receptor-mediated transcriptional activation of the mouse Cyp1a-1 and Cyp1a-2 genes by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *J. Biol. Chem.* 267(10):6991-6998.
- Oliver, R.M. 1975. Toxic effects of 2,3,7,8 tetrachlorodibenzo 1,4 dioxin in laboratory workers. *Br. J. Ind. Med.* 32(1):49-53.
- Olsen, H., E. Enan and F. Matsumura. 1994. Regulation of glucose transport in the NIH 3T3 L1 preadipocyte cell line by TCDD. *Environ. Health Perspect.* 102(5):454-458.
- Olshan, A.F. and D.R. Mattison. 1994. *Male-Mediated Developmental Toxicity*. Plenum Press, New York, NY.

Olson, J.R. 1986. Metabolism and disposition of 2,3,7,8-tetrachlorodibenzo-p-dioxin in guinea pigs. *Toxicol. Appl. Pharmacol.* 85(2):263-273.

Olson, J.R. and B.P. McGarrigle. 1990. Characterization of the developmental toxicity of 2,3,7,8-TCDD in the Golden Syrian hamster. *Toxicologist.* 10:313.

Olson, J.R. and B.P. McGarrigle. 1992. Comparative developmental toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Chemosphere.* 25(1-2):71-74.

Olson, J.R., M.A. Holscher and R.A. Neal. 1980a. Toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the golden Syrian hamster. *Toxicol. Appl. Pharmacol.* 55(1):67-78.

Olson, J.R., T.A. Gasiewicz and R.A. Neal. 1980b. Tissue distribution, excretion, and metabolism of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in the Golden Syrian hamster. *Toxicol. Appl. Pharmacol.* 56(1):78-85.

Olson, J.R., M. Gudzinowicz and R.A. Neal. 1981. The in vitro and in vivo metabolism of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in the rat. *Toxicologist.* 1:69-70.

Olson, J.R., T.A. Gasiewicz, L.E. Geiger and R.A. Neal. 1983. The metabolism of 2,3,7,8-tetrachlorodibenzo-p-dioxin in mammalian systems. In: *Accidental Exposure Dioxins: Human Health Aspects*, R. Coulston and F. Pocchiari, Eds. Academic Press, New York, NY. pp. 81-100.

Olson, J.R., J.S. Bellin and D.G. Barnes. 1989. Reexamination of data used for establishing toxicity equivalency factors (TEFs) for chlorinated dibenzo-p-dioxins and dibenzofurans (CDDs and CDFs). *Chemosphere.* 18(1-6):371-381.

Olson, J.R., B.P. McGarrigle, P.J. Gigliotti, S. Kumar and J.H. McReynolds. 1994. Hepatic uptake and metabolism of 2,3,7,8-tetrachlorodibenzo-p-dioxin and 2,3,7,8-tetrachlorodibenzofuran. *Fundam. Appl. Toxicol.* 22(4):631-640.

Olsson, H. and L. Brandt. 1988. Risk of non-Hodgkin's lymphoma among men occupationally exposed to organic solvents. *Scand. J. Work Environ. Health.* 14(4):246-251.

O'Malley, M.A., A.V. Carpenter, M.H. Sweeney, M.A. Fingerhut, D.A. Marlow, W.E. Halperin and C.G. Mathias. 1990. Chloracne associated with employment in the production of pentachlorophenol. *Am. J. Ind. Med.* 17(4):411-421.

Ontario Ministry of the Environment. 1985. Scientific criteria document for standard development. Polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs). Ontario Ministry of the Environment, Toronto, Ontario. 4-84.

- Orth, J.M., G.L. Gunsalus and A.A. Lamperti. 1988. Evidence from Sertoli cell-depleted rats indicates that spermatid number in adults depends on numbers of Sertoli cells produced during perinatal development. *Endocrinology*. 122(3):787-794.
- Osborne, R. and W.F. Greenlee. 1985. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) enhances terminal differentiation of cultured human epidermal cells. *Toxicol. Appl. Pharmacol.* 77(3):434-443.
- Osborne, R., J.C. Cook, K.M. Dold, L. Ross, K. Gaido and W.F. Greenlee. 1988. TCDD receptor: mechanisms of altered growth regulation in normal and transformed human keratinocytes, 34, R. Langenbach, J.C. Burrett and E. Elmore, Eds. Raven Press, New York, NY. 416 pp.
- Ott, M.G. and A. Zober. 1996a. Cause specific mortality and cancer incidence among employees exposed to 2,3,7,8-TCDD after a 1953 reactor accident. *Occup. Environ. Med.* 53(9):606-612.
- Ott, M.G. and A. Zober. 1996b. Morbidity study of extruder personnel with potential exposure to brominated dioxins and furans. II. Results of clinical laboratory studies. *Occup. Environ. Med.* 53(12):844-846.
- Ott, M.G., R.A. Olson, R.R. Cook and G.G. Bond. 1987. Cohort mortality study of chemical workers with potential exposure to the higher chlorinated dioxins. *J. Occup. Med.* 29(5):422-429.
- Ott, M.G., P. Messerer and A. Zober. 1993. Assessment of past occupational exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin using blood lipid analyses. *Int. Arch. Occup. Environ. Health.* 65(1):1-8.
- Ott, M.G., A. Zober and C. Germann. 1994. Laboratory results for selected target organs in 138 individuals occupationally exposed to TCDD. *Chemosphere.* 29(9-11):2423-2437.
- Otto, S., K.K. Bhattacharyya and C.R. Jefcoate. 1992. Polycyclic aromatic hydrocarbon metabolism in rat adrenal, ovary, and testis microsomes is catalyzed by the same novel cytochrome P450 (P450RAP). *Endocrinology.* 131(6):3067-3076.
- Ouiddir, A., C. Planes, I. Fernandes, A. VanHesse and C. Clerici. 1999. Hypoxia upregulates activity and expression of the glucose transporter GLUT1 in alveolar epithelial cells. *Am. J. Respir. Cell Mol. Biol.* 21(6):710-718.
- Papke, O., M. Ball and Z.A. Lis. 1992. Various PCDD/PCDF patterns in human blood resulting from different occupational exposures. *Chemosphere.* 25(7-10):1101-1108.
- Pareschi, P.L. and F. Tomasi. 1989. Epidemiology of diabetes mellitus. In: *Epidemiology and Screening of Diabetes*, M. Morsiani, Ed. CRC Press, Boca Raton, FL. pp. 77-101.

- Parham, F.M. and C.J. Portier. 1998. Using structural information to create physiologically based pharmacokinetic models for all polychlorinated biphenyls. II. Rates of metabolism. *Toxicol. Appl. Pharmacol.* 151(1):110-116.
- Parham, F.M., M.C. Kohn, H.B. Matthews, C. DeRosa and C.J. Portier. 1997. Using structural information to create physiologically based pharmacokinetic models for all polychlorinated biphenyls. *Toxicol. Appl. Pharmacol.* 144(2):340-347.
- Park, J.Y., M.K. Shigenaga and B.N. Ames. 1996. Induction of cytochrome P4501A1 by 2,3,7,8-tetrachlorodibenzo-p-dioxin or indolo(3,2-b)carbazole is associated with oxidative DNA damage. *Proc. Natl. Acad. Sci. U. S. A.* 93(6):2322-2327.
- Park, S.K., E.C. Henry and T.A. Gasiewicz. 2000. Regulation of DNA binding activity of the ligand-activated aryl hydrocarbon receptor by tyrosine phosphorylation. *Arch. Biochem. Biophys.* 381(2):302-312.
- Parkinson, A. and A. Hurwitz. 1991. Omeprazole and the induction of human cytochrome P-450: a response to concerns about potential adverse effects. *Gastroenterology.* 100(4):1157-1164.
- Parkinson, A., P.E. Thomas, D.E. Ryan, L.M. Reik, S.H. Safe, L.W. Robertson and W. Levin. 1983. Differential time course of induction of rat liver microsomal cytochrome P-450 isozymes and epoxide hydrolase by Aroclor 1254. *Arch. Biochem. Biophys.* 225(1):203-215.
- Partanen, A.M., S. Alaluusua, P.J. Miettinen, I. Thesleff, J. Tuomisto, R. Pohjanvirta and P.-L. Lukinmaa. 1998. Epidermal growth factor receptor as a mediator of developmental toxicity of dioxin in mouse embryonic teeth. *Lab. Invest.* 78(12):1473-1481.
- Patandin, S., C. Koopman-Esseboom, M.A. De Ridder, N. Weisglas-Kuperus and P.J. Sauer. 1998. Effects of environmental exposure to polychlorinated biphenyls and dioxins on birth size and growth in Dutch children. *Pediatr. Res.* 44(4):538-545.
- Patandin, S., C.I. Lanting, P.G. Mulder, E.R. Boersma, P.J. Sauer and N. Weisglas-Kuperus. 1999a. Effects of environmental exposure to polychlorinated biphenyls and dioxins on cognitive abilities in Dutch children at 42 months of age. *J. Pediatr.* 134(1):33-41.
- Patandin, S., P.C. Dagnelie, P.G. Mulder, E. Op de Coul, J.E. van der Veen, N. Weisglas-Kuperus and P.J. Sauer. 1999b. Dietary exposure to polychlorinated biphenyls and dioxins from infancy until adulthood: A comparison between breast-feeding, toddler, and long-term exposure. *Environ. Health Perspect.* 107(1):45-51.
- Patterson, D. 2000. Personal communication. Personal communication from D. Patterson, CDC, Atlanta, GA to M. Lorber, U.S. EPA, Washington, DC. Memorandum to M.Lorber.

Patterson, D.G., J.S. Holler, C.R. Lapeza, Jr., L.R. Alexander, D.F. Groce, R.C. O'Connor, S.J. Smith, J.A. Liddle and L.L. Needham. 1986a. High-resolution gas chromatographic/high-resolution mass spectrometric analysis of human adipose tissue for 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Anal. Chem.* 58(4):705-713.

Patterson, D.G., Jr., R.E. Hoffman, L.L. Needham, D.W. Roberts, J.R. Bagby, J.L. Pirkle, H. Falk, E.J. Sampson and V.N. Houk. 1986b. 2,3,7,8-Tetrachlorodibenzo-p-dioxin levels in adipose tissue of exposed and control persons in Missouri. An interim report. *JAMA.* 256(19):2683-2686.

Patterson, D.G., Jr., L. Hampton, C.R. Lapeza, Jr., W.T. Belser, V. Green, L. Alexander and L.L. Needham. 1987. High-resolution gas chromatographic/high-resolution mass spectrometric analysis of human serum on a whole-weight and lipid basis for 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Anal. Chem.* 59(15):2000-2005.

Patterson, D.G., Jr., L.L. Needham, J.L. Pirkle, D.W. Roberts, J. Bagby, W.A. Garrett, J.S. Andrews, Jr., H. Falk, J.T. Bernert and E.J. Sampson. 1988. Correlation between serum and adipose tissue levels of 2,3,7,8-tetrachlorodibenzo-p-dioxin in 50 persons from Missouri. *Arch. Environ. Contam. Toxicol.* 17(2):139-143.

Patterson, D.G., Jr., M.A. Fingerhut, D.W. Roberts, L.L. Needham, M.H. Sweeney, D.A. Marlow, J.S. Andrews, Jr. and W.E. Halperin. 1989a. Levels of polychlorinated dibenzo-p-dioxins and dibenzofurans in workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Am. J. Ind. Med.* 16(2):135-146.

Patterson, D.G., Jr., P. Fürst, L.O. Henderson, S.G. Isaacs, L.R. Alexander, W.E. Turner, L.L. Needham and H. Hannon. 1989b. Partitioning of in vivo bound PCDDs/PCDFs among various compartments in whole blood. *Chemosphere.* 19(1-6):135-142.

Patterson, D.G., Jr., G.D. Todd, W.E. Turner, V. Maggio, L.R. Alexander and L.L. Needham. 1994. Levels of non-ortho-substituted (coplanar), mono- and di-ortho-substituted polychlorinated biphenyls, dibenzo-p-dioxins, and dibenzofurans in human serum and adipose tissue. *Environ. Health Perspect.* 102 Suppl 1:195-204.

Pauwels, A., P. Cenijn, A. Covaci, J. Weyler, P.J.C. Schepens and A. Brouwer. 1999. Analysis of PCB congeners (by GC-ECD) and dioxin-like toxic equivalence (by CALUX assay) in females with endometriosis and other fertility problems. *Organohalogen Comp.* 44:407-410.

Pavliak, A.L., S.M. Wielgosz and E. Huttner. 1989. Enhanced inhibition of splenic lymphocyte proliferation by 2,3,7,8-tetrachlorodibenzo-p-dioxin in C57B1/10 (Ah+Ah+) mice compared to DBA/2(AhAh) mice. *Biull. Eksp. Biol. Med.* 107(3):331-333.

Pavuk, M., A.J. Schechter, F.Z. Akhtar and J.E. Michalek. 2003. Serum 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) levels and thyroid function in Air Force veterans of the Vietnam War. *Ann. Epidemiol.* 13(5):335-343.



- Payne, A.H., P.G. Quinn and J.R.D. Stalvey. 1985. The stimulation of steroid biosynthesis by luteinizing hormone. In: Luteinizing Hormone Action and Receptors, M. Ascoli, Ed. CRC Press, Boca Raton, FL. pp. 135-172.
- Pazdernik, T.L. and K.K. Rozman. 1985. Effect of thyroidectomy and thyroxine on 2,3,7,8-tetrachlorodibenzo-p-dioxin-induced immunotoxicity. *Life Sci.* 36(7):695-703.
- Pazderova-Vejlupkova, J., E. Lukas, M. Nemcova, J. Pickova and L. Jirasek. 1981. The development and prognosis of chronic intoxication by tetrachlorodibenzo-p-dioxin in men. *Arch. Environ. Health.* 36(1):5-11.
- Pearce, N. 1989. Phenoxy herbicides and non-Hodgkin's lymphoma in New Zealand: frequency and duration of herbicide use. *Br. J. Ind. Med.* 46(2):143-144.
- Pearce, N.E., A.H. Smith and D.O. Fisher. 1985. Malignant lymphoma and multiple myeloma linked with agricultural occupations in a New Zealand Cancer Registry-based study. *Am. J. Epidemiol.* 121(2):225-237.
- Pearce, N.E., A.H. Smith, J.K. Howard, R.A. Sheppard, H.J. Giles and C.A. Teague. 1986. Non-Hodgkin's lymphoma and exposure to phenoxyherbicides, chlorophenols, fencing work, and meat works employment: a case-control study. *Br. J. Ind. Med.* 43(2):75-83.
- Pearce, N.E., R.A. Sheppard, A.H. Smith and C.A. Teague. 1987. Non-Hodgkin's lymphoma and farming: an expanded case-control study. *Int. J. Cancer.* 39(2):155-161.
- Pearn, J.H. 1983. Teratogens and the male. An analysis with special reference to herbicide exposure. *Med. J. Aust.* 2(1):16-20.
- Pedersen, L.G., T.A. Darden, S.J. Oatley and J.D. McKinney. 1986. A theoretical study of the binding of polychlorinated biphenyls (PCBs), dibenzodioxins, and dibenzofuran to human plasma prealbumin. *J. Med. Chem.* 29(12):2451-2457.
- Pegram, R.A., J.J. Diliberto, T.C. Moore, P. Gao and L.S. Birnbaum. 1995. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) distribution and cytochrome P4501A induction in young adult and senescent male mice. *Toxicol. Lett.* 76(2):119-126.
- Pelkonen, O. and D.W. Nebert. 1982. Metabolism of polycyclic aromatic hydrocarbons: etiologic role in carcinogenesis. *Pharmacol. Rev.* 34(2):189-222.
- Peraino, C., E.F. Staffeldt and V.A. Ludeman. 1981. Early appearance of histochemically altered hepatocyte foci and liver tumors in female rats treated with carcinogens one day after birth. *Carcinogenesis.* 2(5):463-465.
- Percy, C., E. Stanek, III and L. Gloeckler. 1981. Accuracy of cancer death certificates and its effect on cancer mortality statistics. *Am. J. Public Health.* 71(3):242-250.

- Perdew, G.H. 1988. Association of the Ah receptor with the 90-kDa heat shock protein. *J. Biol. Chem.* 263(27):13802-13805.
- Perdew, G.H. and C.E. Hollenback. 1995. Evidence for two functionally distinct forms of the human Ah receptor. *J. Biochem. Toxicol.* 10(2):95-102.
- Persson, B., A.M. Dahlander, M. Fredriksson, H.N. Brage, C.G. Ohlson and O. Axelson. 1989. Malignant lymphomas and occupational exposures. *Br. J. Ind. Med.* 46(8):516-520.
- Pesatori, A.C., D. Consonni, A. Tironi, M.T. Landi, C. Zocchetti and P.A. Bertazzi. 1992. Cancer morbidity in the Seveso area, 1976-1986. *Chemosphere.* 25(1-2):209-212.
- Pesatori, A.C., D. Consonni, A. Tironi, C. Zocchetti, A. Fini and P.A. Bertazzi. 1993. Cancer in a young population in a dioxin-contaminated area. *Int. J. Epidemiol.* 22(6):1010-1013.
- Pesatori, A.C., C. Zocchetti, S. Guercilena, D. Consonni, D. Turrini and P.A. Bertazzi. 1998. Dioxin exposure and non-malignant health effects: a mortality study. *Occup. Environ. Med.* 55(2):126-131.
- Pesatori, A.C., A. Tironi, D. Consonni, A. Baccarelli, M. Rubagotti, S. Bachetti, I. Bernucci, M.T. Landi, C. Zocchetti and P.A. Bertazzi. 1999. Cancer incidence in the Seveso population. *Organohalogen Comp.* 44:411-412.
- Peters, J.M. and L.M. Wiley. 1995. Evidence that murine preimplantation embryos express aryl hydrocarbon receptor. *Toxicol. Appl. Pharmacol.* 134(2):214-221.
- Peters, J.M., M.G. Narotsky, G. Elizondo, P.M. Fernandez-Salguero, F.J. Gonzalez and B.D. Abbott. 1999. Amelioration of TCDD-induced teratogenesis in aryl hydrocarbon receptor (AhR)-null mice. *Toxicol. Sci.* 47(1):86-92.
- Peterson, R.E., B.V. Madhukar, K.H. Yang and F. Matsumura. 1979. Depression of adenosine triphosphatase activities in isolated liver surface membranes of 2,3,7,8-tetranolone-(16)7C-carbonitrile and spironolactone in isolated perfused rat livers. *J. Pharmacol. Exp. Ther.* 210(2):275-282.
- Peterson, R.E., M.D. Seefeld, B.J. Christian, C.L. Potter, K. Kelling and R. Keesey. 1984. The wasting syndrome in 2,3,7,8-tetrachlorodibenzo-p-dioxin toxicity: basic features and their interpretation. *Banbury Report 18: Biological Mechanisms of Dioxin Action.* Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. pp. 291-308.
- Peterson, R.E., H.M. Theobald and G.L. Kimmel. 1993. Developmental and reproductive toxicity of dioxins and related compounds: cross-species comparisons. *Crit Rev. Toxicol.* 23(3):283-335.

Petrulis, J.R., N.G. Hord and G.H. Perdew. 2000. Subcellular localization of the aryl hydrocarbon receptor is modulated by the immunophilin homolog hepatitis B virus X-associated protein 2. *J. Biol. Chem.* 275(48):37448-37453.

Phelan, D.M., W.R. Brackney and M.S. Denison. 1998. The Ah receptor can bind ligand in the absence of receptor-associated heat-shock protein 90. *Arch. Biochem. Biophys.* 353(1):47-54.

Philippi, M., V. Krasnobagew, J. Zeyer and R. Huetter. 1981. Fate of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD) in microbial cultures and soil under laboratory conditions. In: *Microbial degradation of xenobiotics and recalcitrant compounds*, T. Leisinger, R. Huetter, A.M. Cook and J. Nuesch, Eds. Academic Press, London. pp. 221-223.

Phillips, D.L. 1989. Propagation of error and bias in half-life estimates based on two measurements. *Arch. Environ. Contam. Toxicol.* 18(4):508-514.

Phuong, N.T.N., B.S. Hung, D.Q. Vu and A. Schechter. 1989a. Dioxin levels in adipose tissue of hospitalized women living in the south of Vietnam 1984-85 with a brief review of their clinical histories. *Chemosphere.* 19(1-6):933-936.

Phuong, N.T.N., T.T. Thuy and P.K. Phuong. 1989b. An estimate of differences among women giving birth to deformed babies and among those with hydatidiform mole seen at the OB-GYN hospital of Ho Chi Minh City in the south of Vietnam. *Chemosphere.* 18(1-6):801-803.

Piacitelli, L.A. and D.A. Marlow. 1997. NIOSH 2,3,7,8-tetrachlorodibenzo-*p*-dioxin matrix. *Organohalogen Comp.* 33:510-514.

Piacitelli, L.A., M.H. Sweeney, D.G. Patterson, W.E. Turner, L.B. Connally, K.K. Wille and B. Tompkins. 1997. Serum levels of 2,3,7,8-substituted PCDDs and PCDFs among workers exposed to 2,3,7,8-TCDD contaminated chemicals. *Chemosphere.* 25(1-2):251-254.

Picard, D., B. Khursheed, M.J. Garabedian, M.G. Fortin, S. Lindquist and K.R. Yamamoto. 1990. Reduced levels of hsp90 compromise steroid receptor action in vivo. *Nature.* 348(6297):166-168.

Piechocki, M.P. and R.N. Hines. 1998. Functional characterization of the human CYP1A1 negative regulatory element: modulation of Ah receptor mediated transcriptional activity. *Carcinogenesis.* 19(5):771-780.

Pimental, R.A., B. Liang, G.K. Yee, A. Wilhelmsson, L. Poellinger and K.E. Paulson. 1993. Dioxin receptor and C/EBP regulate the function of the glutathione S-transferase Ya gene xenobiotic response element. *Mol. Cell Biol.* 13(7):4365-4373.

- Pinsky, P.F. and M.N. Lorber. 1998. A model to evaluate past exposure to 2,3,7,8-TCDD. *J. Expo. Anal. Environ. Epidemiol.* 8(2):187-206.
- Piper, W.N., J.Q. Rose and P.J. Gehring. 1973. Excretion and tissue distribution of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the rat. *Environ. Health Perspect.* 5:241-244.
- Pirkle, J.L., W.H. Wolfe, D.G. Patterson, L.L. Needham, J.E. Michalek, J.C. Miner, M.R. Peterson and D.L. Phillips. 1989. Estimates of the half-life of 2,3,7,8-tetrachlorodibenzo-p-dioxin in Vietnam Veterans of Operation Ranch Hand. *J. Toxicol. Environ. Health.* 27(2):165-171.
- Pitot, H.C. and H.A. Campbell. 1987. An approach to the determination of the relative potencies of chemical agents during the stages of initiation and promotion in multistage hepatocarcinogenesis in the rat. *Environ. Health Perspect.* 76:49-56.
- Pitot, H.C. and A.E. Sirica. 1980. The stages of initiation and promotion in hepatocarcinogenesis. *Biochim. Biophys. Acta.* 605(2):191-215.
- Pitot, H.C., T. Goldsworthy, H.A. Campbell and A. Poland. 1980. Quantitative evaluation of the promotion by 2,3,7,8-tetrachlorodibenzo-p-dioxin of hepatocarcinogenesis from diethylnitrosamine. *Cancer Res.* 40(10):3616-3620.
- Pitot, H.C., T.L. Goldsworthy, S. Moran, W. Kennan, H.P. Glauert, R.R. Maronpot and H.A. Campbell. 1987. A method to quantitate the relative initiating and promoting potencies of hepatocarcinogenic agents in their dose-response relationships to altered hepatic foci. *Carcinogenesis.* 8(10):1491-1499.
- Pitot, H.C., H.A. Campbell, R. Maronpot, N. Bawa, T.A. Rizvi, Y.H. Xu, L. Sargent, Y. Dragan and M. Pyron. 1989. Critical parameters in the quantitation of the stages of initiation, promotion, and progression in one model of hepatocarcinogenesis in the rat. *Toxicol. Pathol.* 17(4 Pt 1):594-611.
- Pluess, N., H. Poiger, C. Hohbach and C. Schlatter. 1988. Subchronic toxicity of 2,3,4,7,8-pentachlorodibenzofuran (PeCDF) in rats. *Chemosphere.* 17(6):1099-1110.
- Pluess, N., H. Poiger, C. Schlatter and H.R. Buser. 1987. The metabolism of some pentachlorodibenzofurans in the rat. *Xenobiotica.* 17(2):209-216.
- Pluim, H.J., J.G. Koppe, K. Olie, J.W. Vd Slikke, J.H. Kok, T. Vulsma, D.A. van Tijn and J.J. De Vijlder. 1992. Effects of dioxins on thyroid function in newborn babies. *Lancet.* 339(8804):1303.
- Pluim, H.J., J.J. De Vijlder, K. Olie, J.H. Kok, T. Vulsma, D.A. van Tijn, J.W. van der Slikke and J.G. Koppe. 1993. Effects of pre- and postnatal exposure to chlorinated dioxins and furans on human neonatal thyroid hormone concentrations. *Environ. Health Perspect.* 101(6):504-508.

- Pluim, H.J., J.G. Koppe, K. Olie, J.W. van der Slikke, P.C. Slot and C.J. van Boxtel. 1994. Clinical laboratory manifestations of exposure to background levels of dioxins in the perinatal period. *Acta Paediatr.* 83(6):583-587.
- Pluim, H.J., M. van der Goot, K. Olie, J.W. van der Slikke and J.G. Koppe. 1996. Missing effects of background dioxin exposure on development of breast-fed infants during the first half year of life. *Chemosphere.* 33(7):1307-1315.
- Pocchiari, F. 1980. Accidental TCDD contamination in Seveso (Italy): epidemiological aspects. FIFRA Docket No. 415, Exhibit 1469.
- Pocchiari, F., V. Silano and A. Zampieri. 1979. Human health effects from accidental release of tetrachlorodibenzo-p-dioxin (TCDD) at Seveso, Italy. *Ann. N. Y. Acad. Sci.* 320:311-320.
- Pocchiari, F., V. Silano and A. Zampieri. 1980. Human health effects from accidental release of TCDD at Seveso (Italy). FIFRA Docket No. 415, Exhibit 1470.
- Poellinger, L., A. Wilhelmsson, S. Cuthill, J. Lund, P. Soderkvist, M. Gillner and J.A. Gustafsson. 1987. Structure and function of the dioxin receptor: a DNA binding protein similar to steroid-hormone receptors. *Chemosphere.* 16(8-9):1681-1686.
- Poellinger, L., M. Gottlicher and J.A. Gustafsson. 1992. The dioxin and peroxisome proliferator-activated receptors: nuclear receptors in search of endogenous ligands. *Trends Pharmacol. Sci.* 13(6):241-245.
- Pohjanvirta, R. 1990. TCDD resistance is inherited as an autosomal dominant trait in the rat. *Toxicol. Lett.* 50(1):49-56.
- Pohjanvirta, R. and J. Tuomisto. 1987. Han/Wistar rats are exceptionally resistant to TCDD. II. *Arch. Toxicol. Suppl.* 11:344-347.
- Pohjanvirta, R. and J. Tuomisto. 1994. Short-term toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin in laboratory animals: effects, mechanisms, and animal models. *Pharmacol. Rev.* 46(4):483-549.
- Pohjanvirta, R., R. Juvonen, S. Karenlampi, H. Raunio and J. Tuomisto. 1988. Hepatic Ah-receptor levels and the effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on hepatic microsomal monooxygenase activities in a TCDD-susceptible and -resistant rat strain. *Toxicol. Appl. Pharmacol.* 92(1):131-140.
- Pohjanvirta, R., L. Tuomisto and J. Tuomisto. 1989. The central nervous system may be involved in TCDD toxicity. *Toxicology.* 58(2):167-174.
- Pohjanvirta, R., H. Hakansson, R. Juvonen and J. Tuomisto. 1990a. Effects of TCDD on vitamin A status and liver microsomal enzyme activities in a TCDD-susceptible and a TCDD-resistant rat strain. *Food Chem. Toxicol.* 28(3):197-203.

Pohjanvirta, R., T. Vartiainen, A. Uusi-Rauva, J. Monkkonen and J. Tuomisto. 1990b. Tissue distribution, metabolism, and excretion of <sup>14</sup>C-TCDD in a TCDD-susceptible and a TCDD-resistant rat strain. *Pharmacol. Toxicol.* 66(2):93-100.

Pohjanvirta, R., J.M. Wong, W. Li, P.A. Harper, J. Tuomisto and A.B. Okey. 1998. Point mutation in intron sequence causes altered carboxyl-terminal structure in the aryl hydrocarbon receptor of the most 2,3,7,8-tetrachlorodibenzo-p-dioxin-resistant rat strain. *Mol. Pharmacol.* 54(1):86-93.

Pohjanvirta, R., M. Viluksela, J.T. Tuomisto, M. Unkila, J. Karasinska, M.A. Franc, M. Holowenko, J.V. Giannone, P.A. Harper, J. Tuomisto and A.B. Okey. 1999. Physicochemical differences in the AH receptors of the most TCDD-susceptible and the most TCDD-resistant rat strains. *Toxicol. Appl. Pharmacol.* 155(1):82-95.

Pohjanvirta, R., M. Korkalainen, J. McGuire, U. Simanainen, R. Juvonen, J.T. Tuomisto, M. Unkila, M. Viluksela, J. Bergman, L. Poellinger and J. Tuomisto. 2002. Comparison of acute toxicities of indolo[3,2-b]carbazole (ICZ) and 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in TCDD-sensitive rats. *Food Chem. Toxicol.* 40(7):1023-1032.

Poiger, H. and H.R. Buser. 1984. The metabolism of TCDD in the dog and rat. Banbury Report 18: Biological Mechanisms of Dioxin Action. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, pp. 39-47.

Poiger, H. and C. Schlatter. 1979. Biological degradation of TCDD in rats. *Nature.* 281(5733):706-707.

Poiger, H. and C.H. Schlatter. 1980. Influence of solvents and adsorbents on dermal and intestinal absorption of TCDD. *Food Cosmet. Toxicol.* 18(5):477-481.

Poiger, H. and C. Schlatter. 1984. Pharmacokinetics of 2,3,7,8-TCDD in man. *Chemosphere.* 15(9-12):1489-1494.

Poiger, H. and C. Schlatter. 1985. Influence of phenobarbital and TCDD on the hepatic metabolism of TCDD in the dog. *Experientia.* 41(3):376-378.

Poiger, H., H.R. Buser, H. Weber, U. Zweifel and C. Schlatter. 1982. Structure elucidation of mammalian TCDD-metabolites. *Experientia.* 38(4):484-486.

Poiger, H., H.R. Buser and C. Schlatter. 1984. The metabolism of 2,3,7,8-TCDD in the rat. *Chemosphere.* 13(2):351-357.

Poiger, H., N. Pluess and H.R. Buser. 1989. The metabolism of selected PCDFs in the rat. *Chemosphere.* 18(1-6):259-264.

Poland, A. and E. Glover. 1973a. Chlorinated dibenzo-p-dioxins: potent inducers of delta-aminolevulinic acid synthetase and aryl hydrocarbon hydroxylase. II. A study of the structure-activity relationship. *Mol. Pharmacol.* 9(6):736-747.

- Poland, A. and E. Glover. 1973b. Studies on the mechanism of toxicity of the chlorinated dibenzo-p-dioxins. *Environ. Health Perspect.* 5:245-251.
- Poland, A. and E. Glover. 1974. Comparison of 2,3,7,8-tetrachlorodibenzo-p-dioxin, a potent inducer of aryl hydrocarbon hydroxylase, with 3-methylcholanthrene. *Mol. Pharmacol.* 10(2):349-359.
- Poland, A. and E. Glover. 1979. An estimate of the maximum in vivo covalent binding of 2,3,7,8-tetrachlorodibenzo-p-dioxin to rat liver protein, ribosomal RNA, and DNA. *Cancer Res.* 39(9):3341-3344.
- Poland, A. and E. Glover. 1980. 2,3,7,8-Tetrachlorodibenzo-p-dioxin: segregation of toxicity with the Ah locus. *Mol. Pharmacol.* 17(1):86-94.
- Poland, A. and E. Glover. 1987. Variation in the molecular mass of the Ah receptor among vertebrate species and strains of rats. *Biochem. Biophys. Res. Co.* 146(3):1439-1449.
- Poland, A. and E. Glover. 1990. Characterization and strain distribution pattern of the murine Ah receptor specified by the Ahd and Ahb-3 alleles. *Mol. Pharmacol.* 38(3):306-312.
- Poland, A. and J.C. Knutson. 1982. 2,3,7,8-tetrachlorodibenzo-p-dioxin and related halogenated aromatic hydrocarbons: examination of the mechanism of toxicity. *Annu. Rev. Pharmacol. Toxicol.* 22:517-554.
- Poland, A., E. Glover and A.S. Kende. 1976. Sterospecific, high-affinity binding of 2,3,7,8-tetrachlorodibenzo-p-dioxin by hepatic cytosol. Evidence that the binding species is receptor for induction of aryl hydrocarbon hydroxylase. *J. Biol. Chem.* 251(16):4936-4946.
- Poland, A., D. Palen and E. Glover. 1982. Tumour promotion by TCDD in skin of HRS/J hairless mice. *Nature.* 300(5889):271-273.
- Poland, A., E. Glover and B.A. Taylor. 1987. The murine Ah locus: a new allele and mapping to chromosome 12. *Mol. Pharmacol.* 32(4):471-478.
- Poland, A., P. Teitelbaum and E. Glover. 1989a. [125I]2-iodo-3,7,8-trichlorodibenzo-p-dioxin-binding species in mouse liver induced by agonists for the Ah receptor: characterization and identification. *Mol. Pharmacol.* 36(1):113-120.
- Poland, A., P. Teitelbaum, E. Glover and A. Kende. 1989b. Stimulation of in vivo hepatic uptake and in vitro hepatic binding of [125I]2-iodo-3,7,8-trichlorodibenzo-p-dioxin by the administration of agonist for the Ah receptor. *Mol. Pharmacol.* 36(1):121-127.
- Poland, A.D. 1996. Meeting report: receptor-acting xenobiotics and their risk assessment. *Drug Metab Dispos.* 24(12):1385-1388.

- Poland, A.P., D. Smith, G. Metter and P. Possick. 1971. A health survey of workers in a 2,4-D and 2,4,5-T plant with special attention to chloracne, porphyria cutanea tarda, and psychologic parameters. *Arch. Environ. Health.* 22(3):316-327.
- Poli, A., G. Francheschini, L. Pugliese and C.R. Sirtori. 1980. Increased total and high-density lipoprotein cholesterol with apoprotein changes resembling streptozotocin diabetes in tetrachlorodibenzodioxin (TCDD)-treated rats. *Biochem. Pharmacol.* 29:835-838.
- Pollenz, R.S. 1996. The aryl-hydrocarbon receptor, but not the aryl-hydrocarbon receptor nuclear translocator protein, is rapidly depleted in hepatic and nonhepatic culture cells exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Mol. Pharmacol.* 49(3):391-398.
- Pollenz, R.S., C.A. Sattler and A. Poland. 1994. The aryl hydrocarbon receptor and aryl hydrocarbon receptor nuclear translocator protein show distinct subcellular localizations in Hepa 1c1c7 cells by immunofluorescence microscopy. *Mol. Pharmacol.* 45(3):428-438.
- Pollenz, R.S., H.R. Sullivan, J. Holmes, B. Necela and R.E. Peterson. 1996. Isolation and expression of cDNAs from rainbow trout (*Oncorhynchus mykiss*) that encode two novel basic helix-loop-Helix/PER-ARNT-SIM (bHLH/PAS) proteins with distinct functions in the presence of the aryl hydrocarbon receptor. Evidence for alternative mRNA splicing and dominant negative activity in the bHLH/PAS family. *J. Biol. Chem.* 271(48):30886-30896.
- Pollenz, R.S., M.J. Santostefano, E. Klett, V.M. Richardson, B. Necela and L.S. Birnbaum. 1998. Female Sprague-Dawley rats exposed to a single oral dose of 2,3,7,8-tetrachlorodibenzo-p-dioxin exhibit sustained depletion of aryl hydrocarbon receptor protein in liver, spleen, thymus, and lung. *Toxicol. Sci.* 42(2):117-128.
- Pollenz, R.S., N.A. Davarinis and T.P. Shearer. 1999. Analysis of aryl hydrocarbon receptor-mediated signaling during physiological hypoxia reveals lack of competition for the aryl hydrocarbon nuclear translocator transcription factor. *Mol. Pharmacol.* 56(6):1127-1137.
- Pomerantz, S.M., R.W. Goy and M.M. Roy. 1986. Expression of male-typical behavior in adult female pseudohermaphroditic rhesus: comparisons with normal males and neonatally gonadectomized males and females. *Horm. Behav.* 20(4):483-500.
- Pongratz, I., P.E. Stromstedt, G.G. Mason and L. Poellinger. 1991. Inhibition of the specific DNA binding activity of the dioxin receptor by phosphatase treatment. *J. Biol. Chem.* 266(25):16813-16817.



- Pongratz, I., G.G. Mason and L. Poellinger. 1992. Dual roles of the 90-kDa heat shock protein hsp90 in modulating functional activities of the dioxin receptor. Evidence that the dioxin receptor functionally belongs to a subclass of nuclear receptors which require hsp90 both for ligand binding activity and repression of intrinsic DNA binding activity. *J. Biol. Chem.* 267(19):13728-13734.
- Popp, J.A. and T.L. Goldsworthy. 1989. Defining foci of cellular alteration in short-term and medium-term rat liver tumor models. *Toxicol. Pathol.* 17(4 Pt 1):561-568.
- Portier, C.J. 1987. Statistical properties of a two-stage model of carcinogenesis. *Environ. Health Perspect.* 76:125-131.
- Potter, C.L., L.A. Menahan and R.E. Peterson. 1986. Relationship of alterations in energy metabolism to hypophagia in rats treated with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Fundam. Appl. Toxicol.* 6(1):89-97.
- Portier, C.J. and M.C. Kohn. 1996. A biologically-based model for the carcinogenic effects of 2,3,7,8-TCDD in female Sprague-Dawley rats. *Organohalogen Comp.* 29:222-227.
- Potter, C.L., I.G. Sipes and D.H. Russell. 1983. Hypothyroxinemia and hypothermia in rats in response to 2,3,7,8-tetrachlorodibenzo-p-dioxin administration. *Toxicol. Appl. Pharmacol.* 69(1):89-95.
- Portier, C.J., D. Hoel and J. Van Ryzin. 1984. Statistical analysis of the carcinogenesis bioassay data relating to the risks from exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. In: *Public Health Risks of the Dioxins*, W. Lowrance, Ed. William Kaufmann, Los Altos, NM. pp. 99-120.
- Portier, C., A. Tritscher, M. Kohn, C. Sewall, G. Clark, L. Edler, D. Hoel and Lucier G. 1993. Ligand/receptor binding for 2,3,7,8-TCDD: implications for risk assessment. *Toxicol. Sci.* 20(1):48-56.
- Portier, C.J., C.D. Sherman, M. Kohn, L. Edler, A. Kopp-Schneider, R.M. Maronpot and Lucier G. 1996. Modeling the number and size of hepatic focal lesions following exposure to 2,3,7,8-TCDD. *Toxicol. Appl. Pharmacol.* 138(1):20-30.
- Portier, C.J., L. Edler, D. Jung et al. 1999. Half-lives and body burdens for dioxin and dioxin-like compounds in humans estimated from an occupational cohort in Germany. *Organohalogen Comp.* 42:129-138.
- Potter, C.L., R.W. Moore, S.L. Inhorn, T.C. Hagen and R.E. Peterson. 1986. Thyroid status and thermogenesis in rats treated with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 84(1):45-55.

- Pour, P., N. Kmoch, E. Greiser, U. Mohr, J. Althoff and A. Cardesa. 1976. Spontaneous tumors and common diseases in two colonies of Syrian hamsters. I. Incidence and sites. *J. Natl. Cancer Inst.* 56(5):931-935.
- Powell-Coffman, J.A., C.A. Bradfield and W.B. Wood. 1998. *Caenorhabditis elegans* orthologs of the aryl hydrocarbon receptor and its heterodimerization partner the aryl hydrocarbon receptor nuclear translocator. *Proc. Natl. Acad. Sci. U. S. A.* 95(6):2844-2849.
- Powell-Jones, W., C. Thompson, S. Raeford and G.W. Lucier. 1981. Effect of gonadectomy on the ontogeny of estrogen-binding components in rat liver cytosol. *Endocrinology.* 109(2):628-636.
- Pratt, R.M., L. Dencker and V.M. Diewert. 1984. 2,3,7,8-Tetrachlorodibenzo-p-dioxin-induced cleft palate in the mouse: evidence for alterations in palatal shelf fusion. *Teratog. Carcinog. Mutagen.* 4(5):427-436.
- Pratt, R.M., C.S. Kim, E.H. Goulding et al. 1985. Mechanisms of environmentally induced cleft palate. In: *Prevention of Physical and Mental Congenital Defects, Part C: Basic and Medical Science, Education, and Future Strategies*, M. Marois, Ed. Alan R. Liss, Inc, New York, NY. pp. 283-287.
- Prell, R.A., J.A. Oughton and N.I. Kerkvliet. 1995. Effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin on anti-CD3-induced changes in T-cell subsets and cytokine production. *Int. J. Immunopharmacol.* 17(11):951-961.
- Probst, M.R., C.M. Fan, M. Tessier-Lavigne and O. Hankinson. 1997. Two murine homologs of the *Drosophila* single-minded protein that interact with the mouse aryl hydrocarbon receptor nuclear translocator protein. *J. Biol. Chem.* 272(7):4451-4457.
- Puga, A., D.W. Nebert and F. Carrier. 1992. Dioxin induces expression of c-fos and c-jun proto-oncogenes and a large increase in transcription factor AP-1. *DNA Cell Biol.* 11(4):269-281.
- Puga, A., A. Maier and M. Medvedovic. 2000a. The transcriptional signature of dioxin in human hepatoma HepG2 cells. *Biochem. Pharmacol.* 60(8):1129-1142.
- Puga, A., S.J. Barnes, C. Chang, H. Zhu, K.P. Nephew, S.A. Khan and H.G. Shertzer. 2000b. Activation of transcription factors activator protein-1 and nuclear factor-kappaB by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Biochem. Pharmacol.* 59(8):997-1005.
- Puga, A., S.J. Barnes, T.P. Dalton, C. Chang, E.S. Knudsen and M.A. Maier. 2000c. Aromatic hydrocarbon receptor interaction with the retinoblastoma protein potentiates repression of E2F-dependent transcription and cell cycle arrest. *J. Biol. Chem.* 275(4):2943-2950.

- Puhvel, S.M., M. Sakamoto, D.C. Ertl and R.M. Reisner. 1982. Hairless mice as models for chloracne: a study of cutaneous changes induced by topical application of established chloracnegenes. *Toxicol. Appl. Pharmacol.* 64(3):492-503.
- Puhvel, S.M., M.J. Connor and M. Sakamoto. 1991. Vitamin A deficiency and the induction of cutaneous toxicity in murine skin by TCDD. *Toxicol. Appl. Pharmacol.* 107(1):106-116.
- Putzrath, R.M. 1997. Estimating relative potency for receptor-mediated toxicity: reevaluating the toxicity equivalence factor (TEF) model. *Regul. Toxicol. Pharmacol.* 25(1):68-78.
- Quattrochi, L.C. and R.H. Tukey. 1989. The human cytochrome Cyp1A2 gene contains regulatory elements responsive to 3-methylcholanthrene. *Mol. Pharmacol.* 36(1):66-71.
- Quilley, C.P. and A.B. Rifkind. 1986. Prostaglandin release by the chick embryo heart is increased by 2,3,7,8-tetrachlorodibenzo-p-dioxin and by other cytochrome P-448 inducers. *Biochem. Biophys. Res. Co.* 136(2):582-589.
- Rahman, M.S., J.L. Zatz, T.H. Umbreit and M.A. Gallo. 1992. Comparative in vitro permeation of 2,3,7,8-TCDD through hairless mouse and human skin. *Toxicologist.* 12:80.
- Raisman, G. and P.M. Field. 1973. Sexual dimorphism in the neuropil of the preoptic area of the rat and its dependence on neonatal androgen. *Brain Res.* 54:1-29.
- Rajfer, J. and D.S. Coffey. 1979. Effects of neonatal steroids on male sex tissues. *Invest Urol.* 17(1):3-8.
- Rajfer, J. and P.C. Walsh. 1977. Hormonal regulation of testicular descent: experimental and clinical observations. *J. Urol.* 118(6):985-990.
- Ramlow, J.M., N.W. Spadacene, S.R. Hoag, B.A. Stafford, J.B. Cartmill and P.J. Lerner. 1996. Mortality in a cohort of pentachlorophenol manufacturing workers, 1940-1989. *Am. J. Ind. Med.* 30(2):180-194.
- Ramsey, J.C., J.G. Hefner, R.J. Karbowski, W.H. Braun and P.J. Gehring. 1979. The in vivo biotransformation of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in the rat. *Toxicol. Appl. Pharmacol.* 48:A162.
- Ramsey, J.C., J.G. Hefner, R.J. Karbowski, W.H. Braun and P.J. Gehring. 1982. The in vivo biotransformation of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in the rat. *Toxicol. Appl. Pharmacol.* 65(1):180-184.

- Randerath, K., K.L. Putman, E. Randerath, G. Mason, M. Kelley and S. Safe. 1988. Organ-specific effects of long term feeding of 2,3,7,8-tetrachlorodibenzo-p-dioxin and 1,2,3,7,8-pentachlorodibenzo-p-dioxin on I-compounds in hepatic and renal DNA of female Sprague-Dawley rats. *Carcinogenesis*. 9(12):2285-2289.
- Rannung, A., U. Rannung, H.S. Rosenkranz, L. Winqvist, R. Westerholm, E. Agurell and A.K. Grafstrom. 1987. Certain photooxidized derivatives of tryptophan bind with very high affinity to the Ah receptor and are likely to be endogenous signal substances. *J. Biol. Chem.* 262(32):15422-15427.
- Rao, G.N., W.W. Piegorsch and J.K. Haseman. 1987. Influence of body weight on the incidence of spontaneous tumors in rats and mice of long-term studies. *Am. J. Clin. Nutr.* 45(1 Suppl):252-260.
- Rao, M.S., V. Subbarao, J.D. Prasad and D.G. Scarpelli. 1988. Carcinogenicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the Syrian golden hamster. *Carcinogenesis*. 9(9):1677-1679.
- Rao, V.R. and A. Unger. 1995. A novel application of a competitive binding model in dioxin risk assessment. *Regul. Toxicol. Pharmacol.* 21(1):108-116.
- Rappe, C. 1984. Analysis of polychlorinated dioxins and furans. All 75 PCDDs and 135 PCDFs can be identified by isomer-specific techniques. *Environ. Sci. Technol.* 18(3):78A-90A.
- Rappe, C. 1987. Correspondence with A. Chiu and D. Bayliss, May 6, 1987, August 1, 1987, August 18, 1987, and September 22, 1987. Memorandum to A.Chiu and D. Bayliss.
- Rappe, C. 1991. Sources of human exposure to CDDs and PCDFs. In: *Biological basis for risk assessment of dioxin and related compounds*, 35, M. Gallo, R. Scheuplein and K. van der Heijden, Eds. Cold Springs Harbor Laboratory Press, Cold Springs Harbor, NY.
- Rappe, C., M. Nygren, S. Marklund, L.O. Keller, P.A. Bergqvist and M. Hansson. 1985. Assessment of human exposure to polychlorinated dibenzofurans and dioxins. *Environ. Health Perspect.* 60:303-304.
- Rappe, C., M. Nygren, G. Lindstrom and M. Hansson. 1986. Dioxins and dibenzofurans in biological samples of European origin. *Chemosphere*. 15(9-12):1635-1639.
- Ratti, S.P., G. Belli, P.A. Bertazzi, G. Bressi, S. Cerlesi and F. Panetsos. 1987. TCDD distribution on all the territory around Seveso; its use in epidemiology and a hint into dynamical models. *Chemosphere*. 16(8-9):1765-1773.

- Ray, S.S. and H.I. Swanson. 2003. Alteration of keratinocyte differentiation and senescence by the tumor promoter dioxin. *Toxicol. Appl. Pharmacol.* 192(2):131-145.
- Reggiani, G. 1978. Medical problems raised by the TCDD contamination in Seveso, Italy. *Arch. Toxicol.* 40(3):161-188.
- Reggiani, G. 1980a. Acute human exposure to TCDD in Seveso, Italy. *J. Toxicol. Environ. Health.* 6(1):27-43.
- Reggiani, G. 1980b. Direct testimony before the US EPA. FIFRA Docket No. 415, Exhibit 861.
- Reggiani, G.M. 1989. The Seveso accident: medical survey of a TCDD exposure. In: *Halogenated Biphenyls, Terphenyls, Naphthalenes, Dibenzodioxins and Related Products*, 2nd ed., R. Kimbrough and A.A. Jensen, Eds. Elsevier Science Publishers, Amsterdam. pp. 445-470.
- Rehder, H., L. Sanchioni, F. Cefis and A. Gropp. 1978. [Pathological and embryological studies on abortion cases related to the Seveso accident]. *Schweiz. Med. Wochenschr.* 108(42):1617-1625.
- Reisz-Porszasz, S., M.R. Probst, B.N. Fukunaga and O. Hankinson. 1994. Identification of functional domains of the aryl hydrocarbon receptor nuclear translocator protein (ARNT). *Mol. Cell Biol.* 14(9):6075-6086.
- Remillard, R.B. and N.J. Bunce. 2002. Linking dioxins to diabetes: epidemiology and biologic plausibility. *Environ. Health Perspect.* 110(9):853-858.
- Report to the Minister for Veterans' Affairs. 1983. Case-control study of congenital anomalies and Vietnam service. Australian Government Printing Service, Canberra, Australia.
- Restum, J.C., S.J. Bursian, J.P. Giesy, J.A. Render, W.G. Helferich, E.B. Shipp, D.A. Verbrugge and R.J. Aulerich. 1998. Multigenerational study of the effects of consumption of PCB-contaminated carp from Saginaw Bay, Lake Huron, on mink. 1. Effects on mink reproduction, kit growth and survival, and selected biological parameters. *J. Toxicol. Environ. Health A.* 54(5):343-375.
- Rhile, M.J., M. Nagarkatti and P.S. Nagarkatti. 1996. Role of Fas apoptosis and MHC genes in 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)-induced immunotoxicity of T cells. *Toxicology.* 110(1-3):153-167.
- Rice, D.C. 1997. Effect of postnatal exposure to a PCB mixture in monkeys on multiple fixed interval-fixed ratio performance. *Neurotoxicol. Teratol.* 19(6):429-434.

Rice, D.C. 1999. Effect of exposure to 3,3',4,4',5-pentachlorobiphenyl (PCB 126) throughout gestation and lactation on development and spatial delayed alternation performance in rats. *Neurotoxicol. Teratol.* 21(1):59-69.

Rice, D.C. and S. Hayward. 1998. Lack of effect of 3,3',4,4',5-pentachlorobiphenyl (PCB 126) throughout gestation and lactation on multiple fixed interval-fixed ratio and DRL performance in rats. *Neurotoxicol. Teratol.* 20(6):645-650.

Rice, D.C. and S. Hayward. 1999. Effects of exposure to 3,3',4,4',5-pentachlorobiphenyl (PCB 126) throughout gestation and lactation on behavior (concurrent random interval-random interval and progressive ratio performance) in rats. *Neurotoxicol. Teratol.* 21(6):679-687.

Richardson, V.M., M.J. Santostefano and L.S. Birnbaum. 1998. Daily cycle of bHLH-PAS proteins, Ah receptor and Arnt, in multiple tissues of female Sprague-Dawley rats. *Biochem. Biophys. Res. Co.* 252(1):225-231.

Riddick, D.S., Y. Huang, P.A. Harper and A.B. Okey. 1994. 2,3,7,8-Tetrachlorodibenzo-p-dioxin versus 3-methylcholanthrene: comparative studies of Ah receptor binding, transformation, and induction of CYP1A1. *J. Biol. Chem.* 269(16):12118-12128.

Rier, S. and W.G. Foster. 2002. Environmental dioxins and endometriosis. *Toxicol. Sci.* 70(2):161-170.

Rier, S.E., D.C. Martin, R.E. Bowman, W.P. Dmowski and J.L. Becker. 1993. Endometriosis in rhesus monkeys (*Macaca mulatta*) following chronic exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Fundam. Appl. Toxicol.* 21(4):433-441.

Rier, S.E., D.C. Martin, R.E. Bowman and J.L. Becker. 1995. Immunoresponsiveness in endometriosis: implications of estrogenic toxicants. *Environ. Health Perspect.* 103(Suppl 7):151-156.

Rifkind, A.B. and H. Muschick. 1983. Benoxaprofen suppression of polychlorinated biphenyl toxicity without alteration of mixed function oxidase function. *Nature.* 303(5917):524-526.

Rifkind, A.B., S. Sassa, J. Reyes and H. Muschick. 1985. Polychlorinated aromatic hydrocarbon lethality, mixed-function oxidase induction, and uroporphyrinogen decarboxylase inhibition in the chick embryo: dissociation of dose-response relationships. *Toxicol. Appl. Pharmacol.* 78(2):268-279.

Rifkind, A.B., M. Gannon and S.S. Gross. 1990. Arachidonic acid metabolism by dioxin-induced cytochrome P-450: a new hypothesis on the role of P-450 in dioxin toxicity. *Biochem. Biophys. Res. Co.* 172(3):1180-1188.

- Riihimaki, V., S. Asp and S. Hernberg. 1982. Mortality of 2,4-dichlorophenoxyacetic acid and 2,4,5-trichlorophenoxyacetic acid herbicide applicators in Finland: first report of an ongoing prospective cohort study. *Scand. J. Work Environ. Health.* 8(1):37-42.
- Riihimaki, V., S. Asp, E. Pukkala and S. Hernberg. 1983. Mortality and cancer incidence among chlorinated phenoxyacid applicators in Finland. *Chemosphere.* 12(4-5):779-784.
- Rininger, J.A., D.A. Stoffregen and J.G. Babish. 1997. Murine hepatic p53, RB, and CDK inhibitory protein expression following acute 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Chemosphere.* 34(5-7):1557-1568.
- Rizzardini, M., M. Romano, F. Tursi, M. Salmona, A. Vecchi, F. Sironi, F. Gizzi, S. Benfenati, S. Garattini and R. Fanelli. 1983. Toxicological evaluation of urban waste incinerator emissions. *Chemosphere.* 12(4-5):559-564.
- Robaire, B. and L. Hermo. 1988. Efferent ducts, epididymis, and vas deferens: structure, functions, and their regulation. In: *The Physiology of Reproduction*, E. Knobil and J.D. Neil, Eds. Raven Press, New York, NY. pp. 999-1080.
- Robb, G.W., R.P. Amann and G.J. Killian. 1978. Daily sperm production and epididymal sperm reserves of pubertal and adult rats. *J. Reprod. Fertil.* 54(1):103-107.
- Roberts, E.A., N.H. Shear, A.B. Okey and D.K. Manchester. 1985. The Ah receptor and dioxin toxicity: from rodent to human tissues. *Chemosphere.* 14(6-7):661-674.
- Roberts, E.A., C.L. Golas and A.B. Okey. 1986. Ah receptor mediating induction of aryl hydrocarbon hydroxylase: detection in human lung by binding of 2,3,7,8-[3H]tetrachlorodibenzo-p-dioxin. *Cancer Res.* 46(7):3739-3743.
- Roberts, E.A., K.C. Johnson, P.A. Harper and A.B. Okey. 1990. Characterization of the Ah receptor mediating aryl hydrocarbon hydroxylase induction in the human liver cell line Hep G2. *Arch. Biochem. Biophys.* 276(2):442-450.
- Roberts, E.A., K.C. Johnson and W.G. Dippold. 1991. Ah receptor mediating induction of cytochrome P450IA1 in a novel continuous human liver cell line (Mz-Hep-1). Detection by binding with [3H]2,3,7,8-tetrachlorodibenzo-p-dioxin and relationship to the activity of aryl hydrocarbon hydroxylase. *Biochem. Pharmacol.* 42(3):521-528.
- Roberts, L. 1991. Dioxin risks revisited. *Science.* 251(4994):624-626.
- Robinson, C.F., R.J. Waxweiler and D.P. Fowler. 1986. Mortality among production workers in pulp and paper mills. *Scand. J. Work Environ. Health.* 12(6):552-560.
- Robinson, J.R., N. Considine and D.W. Nebert. 1974. Genetic expression of aryl hydrocarbon hydroxylase induction. Evidence for the involvement of other genetic loci. *J. Biol. Chem.* 249(18):5851-5859.

Robles, R., Y. Morita, K.K. Mann, G.I. Perez, S. Yang, T. Matikainen, D.H. Sherr and J.L. Tilly. 2000. The aryl hydrocarbon receptor, a basic helix-loop-helix transcription factor of the PAS gene family, is required for normal ovarian germ cell dynamics in the mouse. *Endocrinology*. 141(1):450-453.

Roegner, R.H., W.D. Grubbs, M.B. Lustik, A.S. Brockman, S.C. Henderson, D.E. Williams, W.H. Wolfe, J.E. Michalek and J.C. Miner. 1991. An epidemiologic investigation of health effects in Air Force personnel following exposure to herbicides. Serum dioxin analysis of 1987 follow-up examination results. U.S. Air Force School of Aerospace Medicine, Brooks Air Force Base, TX. NTIS AD A 237 517 through AD A 237 524.

Rogan, W.J. 1982. PCBs and cola-colored babies: Japan, 1968, and Taiwan, 1979. *Teratology*. 26(3):259-261.

Rogan, W.J. 1989. Yu-Cheng. In: Halogenated Biphenyls, Terphenyls, Naphthalenes, Dibenzodioxins and Related Products, 2nd ed., R. Kimbrough and A.A. Jensen, Eds. Elsevier Science Publishers, New York, NY. pp. 401-415.

Rogan, W.J., B.C. Gladen, K.L. Hung, S.L. Koong, L.Y. Shih, J.S. Taylor, Y.C. Wu, D. Yang, N.B. Ragan and C.C. Hsu. 1988. Congenital poisoning by polychlorinated biphenyls and their contaminants in Taiwan. *Science*. 241(4863):334-336.

Rogan, W.J., B.C. Gladen, Y.L. Guo and C.C. Hsu. 1999. Sex ratio after exposure to dioxin-like chemicals in Taiwan. *Lancet*. 353(9148):206-207.

Rohde, S., G.A. Moser, O. Papke and M.S. McLachlan. 1999. Clearance of PCDD/Fs via the gastrointestinal tract in occupationally exposed persons. *Chemosphere*. 38(14):3397-3410.

Roman, B.L. and R.E. Peterson. 1998. Developmental male reproductive toxicology of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD) and PCBs. In: *Reproductive and Developmental Toxicology*, K.S. Korach, Ed. Marcel-Dekker, New York, NY. pp. 593-624.

Roman, B.L., R.J. Sommer, K. Shinomiya and R.E. Peterson. 1995. In utero and lactational exposure of the male rat to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin: impaired prostate growth and development without inhibited androgen production. *Toxicol. Appl. Pharmacol.* 134(2):241-250.

Romkes, M. and S. Safe. 1988. Comparative activities of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin and progesterone as antiestrogens in the female rat uterus. *Toxicol. Appl. Pharmacol.* 92(3):368-380.

Romkes, M., J. Piskorska-Pliszczynska and S. Safe. 1987. Effects of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin on hepatic and uterine estrogen receptor levels in rats. *Toxicol. Appl. Pharmacol.* 87(2):306-314.



Rose, J.Q., J.C. Ramsey, T.H. Wentzler, R.A. Hummel and P.J. Gehring. 1976. The fate of 2,3,7,8-tetrachlorodibenzo-p-dioxin following single and repeated oral doses to the rat. *Toxicol. Appl. Pharmacol.* 36(2):209-226.

Rosenthal, G.J., E. Lebetkin, J.E. Thigpen, R. Wilson, A.N. Tucker and M.I. Luster. 1989. Characteristics of 2,3,7,8-tetrachlorodibenzo-p-dioxin induced endotoxin hypersensitivity: association with hepatotoxicity. *Toxicology.* 56(3):239-251.

Ross, D.G., A. van Birgelen, M.J. DeVito et al. 1997. Relative potency factors derived from CYP1A induction in mice are predictive for alterations in retinoid concentrations after subchronic exposure to mixtures of PCDDs, PCDFs, and PCBs in female Sprague Dawley rats. *Organohalogen Comp.* 34:281-287.

Ross, J.A. and S. Nesnow. 1999. Polycyclic aromatic hydrocarbons: correlations between DNA adducts and ras oncogene mutations. *Mutat. Res.* 424(1-2):155-166.

Ross, P.S. 2000. Marine mammals as sentinels in ecological risk assessment. *Human Ecol. Risk Assess.* 6(1):29-46.

Ross, P.S., R. De Swart, R. Addison, H. van Loveren, J.G. Vos and A. Osterhaus. 1996. A contaminant-induced immunotoxicity in harbour seals: wildlife at risk? *Toxicology.* 112(2):157-169.

Roth, W.L. and C. Grunfield. 1985. Mechanism of action of peptide hormones and catecholamines. In: *The textbook of endocrinology*, 7th ed., J. Wilson and D. Foster, Eds. W.B. Saunders, Philadelphia, PA. p. 114.

Roth, W., R. Voorman and S.D. Aust. 1988. Activity of thyroid hormone-inducible enzymes following treatment with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 92(1):65-74.

Roth, W.L., R.A. Freeman and A.G. Wilson. 1993. A physiologically based model for gastrointestinal absorption and excretion of chemicals carried by lipids. *Risk Anal.* 13(5):531-543.

Roth, W.L., S. Ernst, L.W. Weber, L. Kerecsen and K.K. Rozman. 1994. A pharmacodynamically responsive model of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) transfer between liver and fat at low and high doses. *Toxicol. Appl. Pharmacol.* 127(1):151-162.

Rowlands, J.C. and J.A. Gustafsson. 1995. Human dioxin receptor chimera transactivation in a yeast model system and studies on receptor agonists and antagonists. *Pharmacol. Toxicol.* 76(5):328-333.

Rowlands, J.C. and J.A. Gustafsson. 1997. Aryl hydrocarbon receptor-mediated signal transduction. *Crit Rev. Toxicol.* 27(2):109-134.

- Rowlands, J.C., I.J. McEwan and J.A. Gustafsson. 1996. Trans-activation by the human aryl hydrocarbon receptor and aryl hydrocarbon receptor nuclear translocator proteins: direct interactions with basal transcription factors. *Mol. Pharmacol.* 50(3):538-548.
- Roy, D., A. Bernhardt, H.W. Strobel and J.G. Liehr. 1992. Catalysis of the oxidation of steroid and stilbene estrogens to estrogen quinone metabolites by the beta-naphthoflavone-inducible cytochrome P450 IA family. *Arch. Biochem. Biophys.* 296(2):450-456.
- Rozman, K.K. 1999. Delayed acute toxicity of 1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin (HpCDD), after oral administration, Obeys Haber's rule of inhalation toxicology. *Toxicol. Sci.* 49(1):102-109.
- Rozman, K.K. 2000. The role of time in toxicology or Haber's c x t product. *Toxicology.* 149(1):35-42.
- Rozman, K., T. Rozman and H. Greim. 1984. Effect of thyroidectomy and thyroxine on 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) induced toxicity. *Toxicol. Appl. Pharmacol.* 72(2):372-376.
- Rozman, K., T. Rozman, E. Scheufler, T. Pazdernik and H. Greim. 1985. Thyroid hormones modulate the toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *J. Toxicol. Environ. Health.* 16(3-4):481-491.
- Rozman, K., L.W.D. Weber, B. Pfeiffer, M. Lebofsky, B.U. Stahl, L. Kerecsen, R. Alper and H. Greim. 1990. Evidence for an indirect mechanism of acute toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin in rats. In: *Dioxin '90, 10th International Symposium on Dioxins and Compounds.* Ecoinforma Press. pp. 133-136.
- Rozman, K., B. Pfeifer, L. Kerecsen and R.H. Alper. 1991a. Is a serotonergic mechanism involved in 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)-induced appetite suppression in the Sprague-Dawley rat? *Arch. Toxicol.* 65(2):124-128.
- Ruangwises, S., L.L. Bestervelt, D.W. Piper, C.J. Nolan and W.N. Piper. 1991b. Human chorionic gonadotropin treatment prevents depressed 17 alpha-hydroxylase/C17-20 lyase activities and serum testosterone concentrations in 2,3,7,8-tetrachlorodibenzo-p-dioxin-treated rats. *Biol. Reprod.* 45(1):143-150.
- Rozman, K., W.L. Roth, H. Greim, B.U. Stahl and J. Doull. 1993. Relative potency of chlorinated dibenzo-p-dioxins (CDDs) in acute, subchronic and chronic (carcinogenicity) toxicity studies: implications for risk assessment of chemical mixtures. *Toxicology.* 77(1-2):39-50.
- Rozman, K.K., M. Lebofsky and D.M. Pinson. 2000. Anemia and lung cancer in 1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin (HPCDD)-treated female Sprague-Dawley rats after various single and multiple oral doses. *Toxicol. Sci.* 54(1):277.

- Rushmore, T.H. and C.B. Pickett. 1993. Glutathione S-transferases, structure, regulation, and therapeutic implications. *J. Biol. Chem.* 268(16):11475-11478.
- Russell, D.H., A.R. Buckley, G.N. Shah, I.G. Sipes, D.E. Blask and B. Benson. 1988. Hypothalamic site of action of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD). *Toxicol. Appl. Pharmacol.* 94(3):496-502.
- Russell, L.D. and R.N. Peterson. 1984. Determination of the elongate spermatid-Sertoli cell ratio in various mammals. *J. Reprod. Fertil.* 70(2):635-641.
- Russo, I.H. and J. Russo. 1978. Developmental stage of the rat mammary gland as determinant of its susceptibility to 7,12-dimethylbenz[*a*]anthracene. *J. Natl. Cancer Inst.* 61(6):1439-1449.
- Ryan, D.E., P.E. Thomas and W. Levin. 1980. Hepatic microsomal cytochrome P-450 from rats treated with isosafrole. Purification and characterization of four enzymic forms. *J. Biol. Chem.* 255(16):7941-7955.
- Ryan, J.J. 1986. Variation of dioxins and furans in human tissues. *Chemosphere.* 15(9-12):1585-1593.
- Ryan, J.J. and Y. Masuda. 1989. Half-lives for elimination of polychlorinated dibenzofurans (PCDFs) and PCBs in humans from the Yusho and Yucheng rice oil poisonings. In: *Dioxin '89, 9th International Symposium on Chlorinated Dioxins and Related Compounds, Toronto, Ontario, Canada.* TOX06 pp.
- Ryan, J.J. and Y. Masuda. 1991. Elimination of polychlorinated dibenzofurans (PCDFs) in humans from the Yusho and Yucheng rice oil poisonings. In: *Dioxin '91, 11th International Symposium on Chlorinated Dioxins and Related Compounds, Research Triangle Park, NC.* 70 pp.
- Ryan, J.J., A. Schecter, R. Lizotte, W.F. Sun and L. Miller. 1985a. Tissue distribution of dioxins and furans in humans from the general population. *Chemosphere.* 14(6/7):929-932.
- Ryan, J.J., R. Lizotte and B.P.Y. Lau. 1985b. Chlorinated dibenzo-*p*-dioxins and chlorinated dibenzofurans in Canadian human adipose tissue. *Chemosphere.* 14(6-7):697-706.
- Ryan, J.J., T.A. Gasiewicz and J.F. Brown, Jr. 1990. Human body burden of polychlorinated dibenzofurans associated with toxicity based on the yusho and yucheng incidents. *Fundam. Appl. Toxicol.* 15(4):722-731.
- Ryan, J.J., Z. Amirova and G. Carrier. 2002. Sex ratios of children of Russian pesticide producers exposed to dioxin. *Environ. Health Perspect.* 110(11):A699-A701.

- Ryan, R.P., G.I. Sunahara, G.W. Lucier, L.S. Birnbaum and K.G. Nelson. 1989. Decreased ligand binding to the hepatic glucocorticoid and epidermal growth factor receptors after 2,3,4,7,8-pentachlorodibenzofuran and 1,2,3,4,7,8-hexachlorodibenzofuran treatment of pregnant mice. *Toxicol. Appl. Pharmacol.* 98(3):454-464.
- Ryu, D.Y., P.E. Levi, P. Fernandez-Salguero, F.J. Gonzalez and E. Hodgson. 1996. Piperonyl butoxide and acenaphthylene induce cytochrome P450 1A2 and 1B1 mRNA in aromatic hydrocarbon-responsive receptor knock-out mouse liver. *Mol. Pharmacol.* 50(3):443-446.
- Saatcioglu, F., D.J. Perry, D.S. Pasco and J.B. Fagan. 1990a. Aryl hydrocarbon (Ah) receptor DNA-binding activity. Sequence specificity and Zn<sup>2+</sup> requirement. *J. Biol. Chem.* 265(16):9251-9258.
- Saatcioglu, F., D.J. Perry, D.S. Pasco and J.B. Fagan. 1990b. Multiple DNA-binding factors interact with overlapping specificities at the aryl hydrocarbon response element of the cytochrome P450IA1 gene. *Mol. Cell Biol.* 10(12):6408-6416.
- Sachs, B.D. and R.J. Barfield. 1976. Functional analysis of masculine copulatory behavior in the male rat. *Adv. Study Behav.* 7:91-154.
- Sadek, C.M. and B.L. Ien-Hoffmann. 1994. Suspension-mediated induction of Hepa 1c1c7 Cyp1a-1 expression is dependent on the Ah receptor signal transduction pathway. *J. Biol. Chem.* 269(50):31505-31509.
- Safe, S.H. 1986. Comparative toxicology and mechanism of action of polychlorinated dibenzo-p-dioxins and dibenzofurans. *Annu. Rev. Pharmacol. Toxicol.* 26:371-399.
- Safe, S. 1990. Polychlorinated biphenyls (PCBs), dibenzo-p-dioxins (PCDDs), dibenzofurans (PCDFs), and related compounds: environmental and mechanistic considerations which support the development of toxic equivalency factors (TEFs). *Crit Rev. Toxicol.* 21(1):51-88.
- Safe, S.H. 1994. Polychlorinated biphenyls (PCBs): environmental impact, biochemical and toxic responses, and implications for risk assessment. *Crit Rev. Toxicol.* 24(2):87-149.
- Safe, S. 1995a. Human dietary intake of aryl hydrocarbon (Ah) receptor agonists: mass balance estimates of exodioxins and endodioxins and implications for health assessment. *Organohalogen Comp.* 26:7-13.
- Safe, S.H. 1995b. Modulation of gene expression and endocrine response pathways by 2,3,7,8-tetrachlorodibenzo-p-dioxin and related compounds. *Pharmacol. Ther.* 67(2):247-281.

Safe, S., B. Astroff, M. Harris, T. Zacharewski, R. Dickerson, M. Romkes and L. Biegel. 1991. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) and related compounds as antioestrogens: characterization and mechanism of action. *Pharmacol. Toxicol.* 69(6):400-409.

Salvan, A., K. Thomaseth, P. Bortot and N. Sartori. 2001. Use of a toxicokinetic model in the analysis of cancer mortality in relation to the estimated absorbed dose of dioxin (2,3,7,8-tetrachlorodibenzo-p-dioxin, TCDD). *Sci. Total Environ.* 274(1-3):21-35.

Sanders, J.E., D.A. Eigenberg, L.J. Bracht, W.R. Wang and M.J. van Zwieten. 1988. Thyroid and liver trophic changes in rats secondary to liver microsomal enzyme induction caused by an experimental leukotriene antagonist (L-649,923). *Toxicol. Appl. Pharmacol.* 95(3):378-387.

Santostefano, M.J., K.L. Johnson, N.A. Whisnant, V.M. Richardson, M.J. DeVito, J.J. Diliberto and L.S. Birnbaum. 1996. Subcellular localization of TCDD differs between the liver, lungs, and kidneys after acute and subchronic exposure: species/dose comparisons and possible mechanism. *Fundam. Appl. Toxicol.* 34(2):265-275.

Santostefano, M.J., D.G. Ross, U. Savas, C.R. Jefcoate and L.S. Birnbaum. 1997. Differential time-course and dose-response relationships of TCDD-induced CYP1B1, CYP1A1, and CYP1A2 proteins in rats. *Biochem. Biophys. Res. Co.* 233(1):20-24.

Santostefano, M.J., X. Wang, V.M. Richardson, D.G. Ross, M.J. DeVito and L.S. Birnbaum. 1998. A pharmacodynamic analysis of TCDD-induced cytochrome P450 gene expression in multiple tissues: dose- and time-dependent effects. *Toxicol. Appl. Pharmacol.* 151(2):294-310.

Santostefano, M.J., V.M. Richardson, N.J. Walker, J. Blanton, K.O. Lindros, G.W. Lucier, S.K. Alcasey and L.S. Birnbaum. 1999. Dose-dependent localization of TCDD in isolated centrilobular and periportal hepatocytes. *Toxicol. Sci.* 52(1):9-19.

Saracci, R., M. Kogevinas, P.A. Bertazzi, B.H. Bueno de Mesquita, D. Coggon, L.M. Green, T. Kauppinen, K.A. L'Abbe, M. Littorin and E. Lyngge. 1991. Cancer mortality in workers exposed to chlorophenoxy herbicides and chlorophenols. *Lancet.* 338(8774):1027-1032.

Sargent, L.M., G.L. Sattler, B. Roloff, Y.H. Xu, C.A. Sattler, L. Meisner and H.C. Pitot. 1992. Ploidy and specific karyotypic changes during promotion with phenobarbital, 2,5,2',5'-tetrachlorobiphenyl, and/or 3,4,3',4'-tetrachlorobiphenyl in rat liver. *Cancer Res.* 52(4):955-962.

Sassa, S., O. Sugita, N. Ohnuma, S. Imajo, T. Okumura, T. Noguchi and A. Kappas. 1986. Studies of the influence of chloro-substituent sites and conformational energy in polychlorinated biphenyls on uroporphyrin formation in chick-embryo liver cell cultures. *Biochem. J.* 235(1):291-296.

- Sauer, R.M. 1990. 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin in Sprague-Dawley rats. Submitted to the Maine Scientific Advisory Panel by Pathco, Inc., Ijamsville, MD. March 13, 1990.
- Savas, U., K.K. Bhattacharyya, M. Christou, D.L. Alexander and C.R. Jefcoate. 1994. Mouse cytochrome P-450EF, representative of a new 1B subfamily of cytochrome P-450s. Cloning, sequence determination, and tissue expression. *J. Biol. Chem.* 269(21):14905-14911.
- Sawahata, T., J.R. Olson and R.A. Neal. 1982. Identification of metabolites of 2, 3, 7, 8-tetrachlorodibenzo-P-dioxin (TCDD) formed on incubation with isolated rat hepatocytes. *Biochem. Biophys. Res. Co.* 105(1):341-346.
- Schaldach, C.M., J. Riby and L.F. Bjeldanes. 1999. Lipoxin A4: a new class of ligand for the Ah receptor. *Biochemistry.* 38(23):7594-7600.
- Schantz, S.L. and R.E. Bowman. 1989. Learning in monkeys exposed perinatally to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD). *Neurotoxicol. Teratol.* 11(1):13-19.
- Schantz, S.L., D.A. Barsotti and J.R. Allen. 1979. Toxicological effects produced in nonhuman primates chronically exposed to fifty parts per trillion 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD). *Toxicol. Appl. Pharmacol.* 48(Pt. 2):A180.
- Schantz, S.L., T.A. Mably and R.E. Peterson. 1991. Effects of perinatal exposure to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (2,3,7,8-TCDD) on spatial learning and memory and locomotor activity in rats. *Teratology.* 43:497.
- Schantz, S.L., S.A. Ferguson and R.E. Bowman. 1992. Effects of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin on behavior of monkeys in peer groups. *Neurotoxicol. Teratol.* 14(6):433-446.
- Schantz, S.L., J. Moshtaghian and D.K. Ness. 1995. Spatial learning deficits in adult rats exposed to ortho-substituted PCB congeners during gestation and lactation. *Fundam. Appl. Toxicol.* 26(1):117-126.
- Schantz, S.L., B.W. Seo, J. Moshtaghian, R.E. Peterson and R.W. Moore. 1996. Effects of gestational and lactational exposure to TCDD or coplanar PCBs on spatial learning. *Neurotoxicol. Teratol.* 18(3):305-313.
- Schantz, S.L., B.W. Seo, P.W. Wong and I.N. Pessah. 1997. Long-term effects of developmental exposure to 2,2',3,5',6-pentachlorobiphenyl (PCB 95) on locomotor activity, spatial learning and memory and brain ryanodine binding. *Neurotoxicology.* 18(2):457-467.
- Schaum, J., D. Winters, L. Phillips and M. Lorber. 1999. TEQ Doses for CDD/Fs and PCBs General Population Exposure to Dioxin-Like Compounds in the United States During the 1990s. *Organohalogen Comp.* 44:181-184.

Schaum, J., L. Schuda, C. Wu, R. Sears, J. Ferrario and K. Andrews. 2003. A national survey of persistent, bioaccumulative, and toxic (PBT) pollutants in the United States milk supply. *J. Expo. Anal. Environ. Epidemiol.* 13(3):177-186.

Schechter, A. 1991. Dioxins and related chemicals in humans and in the environment. Banbury Report 35: Biological Basis for Risk Assessment of Dioxins and Related Compounds. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. pp. 169-214.

Schechter, A., Ed. 1994. Dioxins and Health. Plenum Press, New York, NY.

Schechter, A. and T.A. Gasiewicz. 2003. Dioxins and Health. Wiley-Interscience, Hoboken, NJ.

Schechter, A., T. Tiernan, F. Schaffner, M. Taylor, G. Gitlitz, G.F. VanNess, J.H. Garrett and D.J. Wagel. 1985. Patient fat biopsies for chemical analysis and liver biopsies for ultrastructural characterization after exposure to polychlorinated dioxins, furans and PCBs. *Environ. Health Perspect.* 60:241-254.

Schechter, A.J., J.J. Ryan and J.D. Constable. 1986. Chlorinated dibenzo-*p*-dioxin and dibenzofuran levels in human adipose tissue and milk samples from the north and south of Vietnam. *Chemosphere.* 15(9-12):1613-1620.

Schechter, A.J., J.J. Ryan and J.D. Constable. 1987. Polychlorinated dibenzo-*p*-dioxin and polychlorinated dibenzofuran levels in human breast milk from Vietnam compared with cow's milk and human breast milk from the North American continent. *Chemosphere.* 16(8-9):2003-2016.

Schechter, A., J.D. Constable, J.V. Bangert, H. Tong, S. Arghestani, S. Monson and M.L. Gross. 1989a. Elevated body burdens of 2,3,7,8-tetrachlorodibenzodioxin in adipose tissue of United States Vietnam veterans. *Chemosphere.* 18(1-6):431-438.

Schechter, A., J.J. Ryan and J.D. Constable. 1989b. Chlorinated dioxins and dibenzofurans in human milk from Japan, India, and the United States of America. *Chemosphere.* 18(1-6):975-980.

Schechter, A., J.J. Ryan and P.J. Kostyniak. 1990a. Decrease over a six year period of dioxin and dibenzofuran tissue levels in a single patient following exposure. *Chemosphere.* 20(7-9):911-917.

Schechter, A., J.J. Ryan, J.D. Constable, R.W. Baughman, J.V. Bangert, P. Fürst and K. Wilmers-Richards. 1990b. Partitioning of 2,3,7,8-chlorinated dibenzo-*p*-dioxins and dibenzofurans between adipose tissue and plasma lipid of 20 Massachusetts Vietnam veterans. *Chemosphere.* 20(7-9):951-958.

Schechter, A., O. Pöpke and M. Ball. 1990c. Evidence for transplacental transfer of dioxins from mother to fetus; chlorinated dioxin and dibenzofuran levels in the livers of stillborn infants. *Chemosphere.* 21(8):1017-1022.

- Schechter, A., J.J. Ryan and O. Päpke. 1994a. Elevated dioxin blood levels in Russian chemical workers and their children following maternal exposure. *Chemosphere*. 29(9-11):2361-2370.
- Schechter, A., K. Jiang, O. Papke, P. Fürst and C. Fürst. 1994b. Comparison of dibenzodioxin levels in blood and milk in agricultural workers and others following pentachlorophenol exposure in China. *Chemosphere*. 29(9-11):2371-2380.
- Schechter, A., I. Kassis and O. Papke. 1998a. Partitioning of dioxins, dibenzofurans, and coplanar PCBS in blood, milk, adipose tissue, placenta and cord blood from five American women. *Chemosphere*. 37(9-12):1817-1823.
- Schechter, A., J.J. Ryan and O. Papke. 1998b. Decrease in levels and body burden of dioxins, dibenzofurans, PCBS, DDE, and HCB in blood and milk in a mother nursing twins over a thirty-eight month period. *Chemosphere*. 37(9-12):1807-1816.
- Scheuplein, R.J. and J.C. Bowers. 1995. Dioxin--an analysis of the major human studies: comparison with animal-based cancer risks. *Risk Anal.* 15(3):319-333.
- Scheuplein, R.J., S.E. Shoaf and R.N. Brown. 1990. Role of pharmacokinetics in safety evaluation and regulatory considerations. *Annu. Rev. Pharmacol. Toxicol.* 30:197-218.
- Schieferstein, G.J., N.A. Littlefield, D.W. Gaylor, W.G. Sheldon and G.T. Burger. 1985. Carcinogenesis of 4-aminobiphenyl in BALB/cStCrIfC3Hf/Nctr mice. *Eur. J. Cancer Clin. Oncol.* 21(7):865-873.
- Schiller, C.M., M.W. King and R. Walden. 1986. Alterations in lipid parameters associated with changes in 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)-induced mortality in rats. In: *Chlorinated Dioxins and Dibenzofurans in Perspective*, C. Rappe, G. Choudhary and L.H. Keith, Eds. Lewis Publishers, Chelsea, MI. pp. 285-302.
- Schlatter, C. 1991. Data on kinetics of PCDDs and PCDFs as a prerequisite for human risk assessment. *Banbury Report 35: Biological Basis for Risk Assessment of Dioxins and Related Compounds*. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. pp. 215-228.
- Schlezinger, J.J., C.E. Blickarz, K.K. Mann, S. Doerre and J.J. Stegeman. 2000. Identification of NF-kappaB in the marine fish *Stenotomus chrysops* and examination of its activation by aryl hydrocarbon receptor agonists. *Chem. Biol. Interact.* 126(2):137-157.
- Schluer, C.F., D.E. Halpern, Y. Guo and A.C. Sank. 1992. Medial edgeepithelium fate traced by cell lineage analysis during epithelialmesenchymal transformation. *Dev. Biol.* 154(2):318-330.



- Schlummer, M., G.A. Moser and M.S. McLachlan. 1998. Digestive tract absorption of PCDD/Fs, PCBs, and HCB in humans: mass balances and mechanistic considerations. *Toxicol. Appl. Pharmacol.* 152(1):128-137.
- Schmidt, J.V. and C.A. Bradfield. 1996. AhR signaling pathways. *Annu. Rev. Cell Dev. Biol.* 12:55-89.
- Schmidt, J.V., G.H. Su, J.K. Reddy, M.C. Simon and C.A. Bradfield. 1996. Characterization of a murine Ahr null allele: involvement of the Ah receptor in hepatic growth and development. *Proc. Natl. Acad. Sci. U. S. A.* 93(13):6731-6736.
- Schmitz, H.J., A. Hagenmaier, H.P. Hagenmaier, K.W. Bock and D. Schrenk. 1995. Potency of mixtures of polychlorinated biphenyls as inducers of dioxin receptor-regulated CYP1A activity in rat hepatocytes and H4IIE cells. *Toxicology.* 99(1-2):47-54.
- Schmitz, H.J., P. Behnisch, A. Hagenmaier, H. Hagenmaier, K.W. Bock and D. Schrenk. 1996. CYP1A1-inducing potency in H4IIE cells and chemical composition of technical mixtures of polychlorinated biphenyls. *Environ. Toxicol. Pharmacol.* 1(1):73-79.
- Schnorr, T.M., C.C. Lawson, E.A. Whelan, D.A. Dankovic, J.A. Deddens, L.A. Piacitelli, J. Reefhuis, M.H. Sweeney, L.B. Connally and M.A. Fingerhut. 2001. Spontaneous abortion, sex ratio and paternal occupational exposure to 2,3,7,8 tetrachlorodibenzo-p-dioxin. *Environ. Health Perspect.* 109(11):1127-1132.
- Schrenk, D., H.P. Lipp, T. Wiesmuller, H. Hagenmaier and K.W. Bock. 1991. Assessment of biological activities of mixtures of polychlorinated dibenzo-p-dioxins: comparison between defined mixtures and their constituents. *Arch. Toxicol.* 65(2):114-118.
- Schrenk, D., A. Buchmann, K. Dietz, H.P. Lipp, H. Brunner, H. Sirma, P. Munzel, H. Hagenmaier, R. Gebhardt and K.W. Bock. 1994. Promotion of preneoplastic foci in rat liver with 2,3,7,8-tetrachlorodibenzo-p-dioxin, 1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin and a defined mixture of 49 polychlorinated dibenzo-p-dioxins. *Carcinogenesis.* 15(3):509-515.
- Schrenk, D., D. Riebniger, M. Till, S. Vetter and H.P. Fiedler. 1997. Tryptanthrins: a novel class of agonists of the aryl hydrocarbon receptor. *Biochem. Pharmacol.* 54(1):165-171.
- Schuda, L., J. Schaum, M. Lorber, J. Ferrario and Sears R. 2004. Evaluation of dioxin levels in U.S. cow's milk. *Organohalogen Comp.* 66:1952-1957.
- Schuur, A.G., F.M. Boekhorst, A. Brouwer and T.J. Visser. 1997. Extrathyroidal effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on thyroid hormone turnover in male Sprague-Dawley rats. *Endocrinology.* 138(9):3727-3734.

- Schwartz, E. 1988. A proportionate mortality ratio analysis of pulp and paper mill workers in New Hampshire. *Br. J. Ind. Med.* 45(4):234-238.
- Schwetz, B.A., J.M. Norris, G.L. Sparschu, U.K. Rowe, P.J. Gehring, J.L. Emerson and C.G. Gerbig. 1973. Toxicology of chlorinated dibenzo-p-dioxins. *Environ. Health Perspect.* 5:87-99.
- Scientific Committee on Food. 2000a. Opinion of the SCF on the risk assessment of dioxin-like PCBs in food. Directorate C - Scientific Opinions. European Commission, Health & Consumer Protection Directorate-General, Brussels. SCF/CS/CNTM/DIOXIN/20 Final.
- Scientific Committee on Food. 2000b. Opinion of the SCF on the Risk Assessment of Dioxin-like PCBs in Food. European Commission, Health & Consumer Protection Directorate-General. Scientific Committee on Food, Brussels. SCF/CS/CNTM/DIOXIN/8 Final.
- Sedlak, D., R. Dumler-Grادل, H. Thoma and O. Vierle. 1998. Polyhalogenated dibenzo-p-dioxins and dibenzofurans in the exhaust air during textile processings. *Chemosphere.* 37(9-12):2071-2076.
- Seefeld, M.D. and R.E. Peterson. 1983. 2,3,7,8-tetrachlorodibenzo-p-dioxin-induced weight loss: a proposed mechanism. In: *Human and Environmental Risks of Chlorinated Dioxins and Related Compounds*, R.E. Tucker, A.L. Young and A.P. Gray, Eds. Plenum Press, New York, NY. pp. 405-413.
- Seefeld, M.D. and R.E. Peterson. 1984. Digestible energy and efficiency of feed utilization in rats treated with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 74(2):214-222.
- Seefeld, M.D., R.M. Albrecht and R.E. Peterson. 1979. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on indocyanine green blood clearance in rhesus monkeys. *Toxicology.* 14(3):263-272.
- Seefeld, M.D., R.E. Keesey and R.E. Peterson. 1984a. Body weight regulation in rats treated with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 76(3):526-536.
- Seefeld, M.D., S.W. Corbett, R.E. Keesey and R.E. Peterson. 1984b. Characterization of the wasting syndrome in rats treated with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 73(2):311-322.
- Seegal, R.E. 1996. Neurochemical effects of PCBs: limitations in extrapolation of in vitro effects to whole animals. *Organohalogen Comp.* 29:137-142.
- Seegal, R.F., B. Bush and W. Shain. 1990. Lightly chlorinated ortho-substituted PCB congeners decrease dopamine in nonhuman primate brain and in tissue culture. *Toxicol. Appl. Pharmacol.* 106(1):136-144.

- Seegal, R.F., K.O. Brosch and R.J. Okoniewski. 1997. Effects of in utero and lactational exposure of the laboratory rat to 2,4,2',4'- and 3,4,3',4'-tetrachlorobiphenyl on dopamine function. *Toxicol. Appl. Pharmacol.* 146(1):95-103.
- Seilkop, S.K. 1995. The effect of body weight on tumor incidence and carcinogenicity testing in B6C3F1 mice and F344 rats. *Fundam. Appl. Toxicol.* 24(2):247-259.
- Seo, B.W. and L.A. Meserve. 1995. Effects of maternal ingestion of Aroclor 1254 (PCB) on the developmental pattern of oxygen consumption and body temperature in neonatal rats. *Bull. Environ. Contam Toxicol.* 55(1):22-28.
- Seo, B.W., A.J. Sparks, K. Medora, S. Amin and S.L. Schantz. 1999. Learning and memory in rats gestationally and lactationally exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Neurotoxicol. Teratol.* 21(3):231-239.
- Seo, B.W., M.H. Li, L.G. Hansen, R.W. Moore, R.E. Peterson and S.L. Schantz. 1995. Effects of gestational and lactational exposure to coplanar polychlorinated biphenyl (PCB) congeners or 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on thyroid hormone concentrations in weanling rats. *Toxicol. Lett.* 78(3):253-262.
- Setty, B.S. and Q. Jehan. 1977. Functional maturation of the epididymis in the rat. *J. Reprod. Fertil.* 49(2):317-322.
- Sewall, C.H. and G.W. Lucier. 1995. Receptor-mediated events and the evaluation of the Environmental Protection Agency (EPA) of dioxin risks. *Mutat. Res.* 333(1-2):111-122.
- Sewall, C.H., G.W. Lucier, A.M. Tritscher and G.C. Clark. 1993. TCDD-mediated changes in hepatic epidermal growth factor receptor may be a critical event in the hepatocarcinogenic action of TCDD. *Carcinogenesis.* 14(9):1885-1893.
- Sewall, C.H., G.C. Clark and G.W. Lucier. 1995a. TCDD reduces rat hepatic epidermal growth factor receptor: comparison of binding, immunodetection, and autophosphorylation. *Toxicol. Appl. Pharmacol.* 132(2):263-272.
- Sewall, C.H., N. Flagler, J.P. Vanden Heuvel, G.C. Clark, A.M. Tritscher, R.M. Maronpot and G.W. Lucier. 1995b. Alterations in thyroid function in female Sprague-Dawley rats following chronic treatment with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 132(2):237-244.
- Shain, W., B. Bush and R. Seegal. 1991. Neurotoxicity of polychlorinated biphenyls: structure-activity relationship of individual congeners. *Toxicol. Appl. Pharmacol.* 111(1):33-42.
- Shen, E.S. and J.R. Olson. 1987. Relationship between the murine Ah phenotype and the hepatic uptake and metabolism of 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Drug Metab Dispos.* 15(5):653-660.

- Shen, E.S. and J.P. Whitlock, Jr. 1989. The potential role of DNA methylation in the response to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *J. Biol. Chem.* 264(30):17754-17758.
- Shen, E.S. and J.P. Whitlock, Jr. 1992. Protein-DNA interactions at a dioxin-responsive enhancer. Mutational analysis of the DNA-binding site for the liganded Ah receptor. *J. Biol. Chem.* 267(10):6815-6819.
- Shen, E.S., S.I. Gutman and J.R. Olson. 1991. Comparison of 2,3,7,8-tetrachlorodibenzo-p-dioxin-mediated hepatotoxicity in C57BL/6J and DBA/2J mice. *J. Toxicol. Environ. Health.* 32(4):367-381.
- Shertzer, H.G., D.W. Nebert, A. Puga, M. Ary, D. Sonntag, K. Dixon, L.J. Robinson, E. Cianciolo and T.P. Dalton. 1998. Dioxin causes a sustained oxidative stress response in the mouse. *Biochem. Biophys. Res. Co.* 253(1):44-48.
- Shi, Y.E. and J.D. Yager. 1989. Effects of the liver tumor promoter ethinyl estradiol on epidermal growth factor-induced DNA synthesis and epidermal growth factor receptor levels in cultured rat hepatocytes. *Cancer Res.* 49(13):3574-3580.
- Shigematsu, N., S. Ishimaru, R. Saito, T. Ikeda, K. Matsuba, K. Sugiyama and Y. Masuda. 1978. Respiratory involvement in polychlorinated biphenyls poisoning. *Environ. Res.* 16(1-3):92-100.
- Shimada, T. and Y. Sawabe. 1983. Activation of 3,4,3',4'-tetrachlorobiphenyl to protein-bound metabolites by rat liver microsomal cytochrome P-448-containing monooxygenase system. *Toxicol. Appl. Pharmacol.* 70(3):486-493.
- Shimada, T., C.L. Hayes, H. Yamazaki, S. Amin, S.S. Hecht, F.P. Guengerich and T.R. Sutter. 1996. Activation of chemically diverse procarcinogens by human cytochrome P-450 1B1. *Cancer Res.* 56(13):2979-2984.
- Shimba, S., K. Todoroki, T. Aoyagi and M. Tezuka. 1998. Depletion of arylhydrocarbon receptor during adipose differentiation in 3T3-L1 cells. *Biochem. Biophys. Res. Co.* 249(1):131-137.
- Shimizu, Y., Y. Nakatsuru, M. Ichinose, Y. Takahashi, H. Kume, J. Mimura, Y. Fujii-Kuriyama and T. Ishikawa. 2000. Benzo[a]pyrene carcinogenicity is lost in mice lacking the aryl hydrocarbon receptor. *Proc. Natl. Acad. Sci. U. S. A.* 97(2):779-782.
- Shipp, E.B., J.C. Restum, J.P. Giesy, S.J. Bursian, R.J. Aulerich and W.G. Helferich. 1998. Multigenerational study of the effects of consumption of PCB-contaminated carp from Saginaw Bay, Lake Huron, on mink. 2. Liver PCB concentration and induction of hepatic cytochrome P-450 activity as a potential biomarker for PCB exposure. *J. Toxicol. Environ. Health A.* 54(5):377-401.

- Shipp, E.B., J.C. Restum, S.J. Bursian, R.J. Aulerich and W.G. Helferich. 1998. Multigenerational study of the effects of consumption of PCB-contaminated carp from Saginaw Bay, Lake Huron, on mink. 3. Estrogen receptor and progesterone receptor concentrations, and potential correlation with dietary PCB consumption. *J. Toxicol. Environ. Health A.* 54(5):403-420.
- Shirai, J.H. and J.C. Kissel. 1996. Uncertainty in estimated half-lives of PCBS in humans: impact on exposure assessment. *Sci. Total Environ.* 187(3):199-210.
- Shireman, R.B. and C.I. Wei. 1986. Uptake of 2,3,7,8-tetrachlorodibenzo-p-dioxin from plasma lipoproteins by cultured human fibroblasts. *Chem. Biol. Interact.* 58(1):1-12.
- Shiverick, K.T. and T.F. Muther. 1982. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on serum concentrations and the uterotrophic action of exogenous estrone in rats. *Toxicol. Appl. Pharmacol.* 65(1):170-176.
- Shiverick, K.T. and T.F. Muther. 1983. 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) effects on hepatic microsomal steroid metabolism and serum estradiol of pregnant rats. *Biochem. Pharmacol.* 32(6):991-995.
- Shu, H.P., D.J. Paustenbach and F.J. Murray. 1987. A critical evaluation of the use of mutagenesis, carcinogenesis, and tumor promotion data in a cancer risk assessment of 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Regul. Toxicol. Pharmacol.* 7(1):57-88.
- Shu, H., D. Paustenbach, F.J. Murray, L. Marple, B. Brunck, D. Dei Rossi and P. Teitelbaum. 1988a. Bioavailability of soil-bound TCDD: oral bioavailability in the rat. *Fundam. Appl. Toxicol.* 10(4):648-654.
- Shu, H., P. Teitelbaum, A.S. Webb, L. Marple, B. Brunck, D. Dei Rossi, F.J. Murray and D. Paustenbach. 1988b. Bioavailability of soil-bound TCDD: dermal bioavailability in the rat. *Fundam. Appl. Toxicol.* 10(2):335-343.
- Shum, S., N.M. Jensen and D.W. Nebert. 1979. The murine Ah locus: in utero toxicity and teratogenesis associated with genetic differences in benzo[a]pyrene metabolism. *Teratology.* 20(3):365-376.
- Sielken, R.L., Jr. 1987. Statistical evaluations reflecting the skewness in the distribution of TCDD levels in human adipose tissue. *Chemosphere.* 16(8/9):2135-2140.
- Sijm, D.T.H.M., A.L. Yarechewski, D.C.G. Muir, G.R.B. Webster, W. Seinen and A. Opperhuizen. 1990. Biotransformation and tissue distribution of 1,2,3,7-tetrachlorodibenzo-*p*-dioxin, 1,2,3,4,7-pentachlorodibenzo-*p*-dioxin and 2,3,4,7,8-pentachlorodibenzofuran in rainbow trout. *Chemosphere.* 21(7):845-866.
- Silbergeld, E.K. and T.A. Gasiewicz. 1989. Dioxins and the Ah receptor. *Am. J. Ind. Med.* 16(4):455-474.

- Silkworth, J.B. and L. Antrim. 1985. Relationship between Ah receptor-mediated polychlorinated biphenyl (PCB)-induced humoral immunosuppression and thymic atrophy. *J. Pharmacol. Exp. Ther.* 235(3):606-611.
- Silkworth, J.B. and E.M. Grabstein. 1982. Polychlorinated biphenyl immunotoxicity: dependence on isomer planarity and the Ah gene complex. *Toxicol. Appl. Pharmacol.* 65(1):109-115.
- Silkworth, J.B., L. Antrim and L.S. Kaminsky. 1984. Correlations between polychlorinated biphenyl immunotoxicity, the aromatic hydrocarbon locus, and liver microsomal enzyme induction in C57BL/6 and DBA/2 mice. *Toxicol. Appl. Pharmacol.* 75(1):156-165.
- Silkworth, J.B., D.S. Cutler and G. Sack. 1989a. Immunotoxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin in a complex environmental mixture from the Love Canal. *Toxicol. Sci.* 12(2):303-312.
- Silkworth, J.B., D.S. Cutler, L. Antrim, D. Houston, C. Tumasonis and L.S. Kaminsky. 1989b. Teratology of 2,3,7,8-tetrachlorodibenzo-p-dioxin in a complex environmental mixture from the love canal. *Fundam. Appl. Toxicol.* 13(1):1-15.
- Silkworth, J.B., D.S. Cutler, P.W. O'Keefe and T. Lipinskas. 1993. Potentiation and antagonism of 2,3,7,8-tetrachlorodibenzo-p-dioxin effects in a complex environmental mixture. *Toxicol. Appl. Pharmacol.* 119(2):236-247.
- Silkworth, J.B., T. Lipinskas and C.R. Stoner. 1995. Immunosuppressive potential of several polycyclic aromatic hydrocarbons (PAHs) found at a Superfund site: new model used to evaluate additive interactions between benzo[a]pyrene and TCDD. *Toxicology.* 105(2-3):375-386.
- Silkworth, J.B., B.A. Mayes, K.M. Fish and J.F. Brown, Jr. 1997. Tumor responses, PCB tissue concentrations and PCB hepatic binding in S-D rats fed Aroclors 1016, 1242, 1254 or 1260. *Dioxin '97: 17th International Symposium on chlorinated Dioxins and related compounds, Indianapolis, IN, USA.* *Organohalogen Comp.* 34:164-166.
- Sills, R.C., T.L. Goldsworthy and S.D. Sleight. 1994. Tumor-promoting effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin and phenobarbital in initiated weanling Sprague-Dawley rats: a quantitative, phenotypic, and ras p21 protein study. *Toxicol. Pathol.* 22(3):270-281.
- Silva, J., C.A. Kauffman, D.G. Simon, P.J. Landrigan, H.E. Humphrey, C.W. Heath, Jr., K.R. Wilcox, Jr., G. VanAmburg, R.A. Kaslow, A. Ringel and K. Hoff. 1979. Lymphocyte function in humans exposed to polybrominated biphenyls. *J. Reticuloendothel. Soc.* 26(4):341-347.
- Silverstone, A.E., D.E. Frazier, Jr. and T.A. Gasiewicz. 1994a. Alternate immune system targets for TCDD: lymphocyte stem cells and extrathymic T-cell development. *Exp. Clin. Immunogenet.* 11(2-3):94-101.

- Silverstone, A.E., D.E. Frazier, Jr., N.C. Fiore, J.A. Soult and T.A. Gasiewicz. 1994b. Dexamethasone, beta-estradiol, and 2,3,7,8-tetrachlorodibenzo-p-dioxin elicit thymic atrophy through different cellular targets. *Toxicol. Appl. Pharmacol.* 126(2):248-259.
- Sims, P. and P.L. Grover. 1974. Epoxides in polycyclic aromatic hydrocarbon metabolism and carcinogenesis. *Adv. Cancer Res.* 20:165-274.
- Sinal, C.J. and J.R. Bend. 1997. Aryl hydrocarbon receptor-dependent induction of cyp1a1 by bilirubin in mouse hepatoma hepa 1c1c7 cells. *Mol. Pharmacol.* 52(4):590-599.
- Sinclair, P.R., W.J. Bement, H.L. Bonkovsky and J.F. Sinclair. 1984. Inhibition of uroporphyrinogen decarboxylase by halogenated biphenyls in chick hepatocyte cultures. Essential role for induction of cytochrome P-448. *Biochem. J.* 222(3):737-748.
- Sindhu, R.K., S. Reisz-Porszasz, O. Hankinson and Y. Kikkawa. 1996. Induction of cytochrome P4501A1 by photooxidized tryptophan in Hepa 1c1c7 cells. *Biochem. Pharmacol.* 52(12):1883-1893.
- Singer, R., M. Moses, J. Valciukas, R. Lilis and I.J. Selikoff. 1982. Nerve conduction velocity studies of workers employed in the manufacture of phenoxy herbicides. *Environ. Res.* 29(2):297-311.
- Sinha, R., N. Rothman, E.D. Brown, S.D. Mark, R.N. Hoover, N.E. Caporaso, O.A. Levander, M.G. Knize, N.P. Lang and F.F. Kadlubar. 1994. Pan-fried meat containing high levels of heterocyclic aromatic amines but low levels of polycyclic aromatic hydrocarbons induces cytochrome P4501A2 activity in humans. *Cancer Res.* 54(23):6154-6159.
- Sipes, I.G., M.L. Slocumb, D.F. Perry and D.E. Carter. 1982. 2,4,5,2',4',5'-Hexachlorobiphenyl: distribution, metabolism, and excretion in the dog and the monkey. *Toxicol. Appl. Pharmacol.* 65(2):264-272.
- Slaga, T.J., L. Jecker, W.M. Bracken and C.E. Weeks. 1979. The effects of weak or non-carcinogenic polycyclic hydrocarbons on 7,12-dimethylbenz[a]anthracene and benzo[a]pyrene skin tumor-initiation. *Cancer Lett.* 7(1):51-59.
- Slaga, T.J., S.M. Fischer, C.E. Weeks, A.J. Klein-Szanto and J. Reiners. 1982. Studies on the mechanisms involved in multistage carcinogenesis in mouse skin. *J. Cell. Biochem.* 18(1):99-119.
- Slezak, B.P., J.J. Diliberto and L.S. Birnbaum. 1999. 2,3,7,8-Tetrachlorodibenzo-p-dioxin-mediated oxidative stress in CYP1A2 knockout (CYP1A2<sup>-/-</sup>) mice. *Biochem. Biophys. Res. Co.* 264(2):376-379.

- Slezak, B.P., G.E. Hatch, M.J. DeVito, J.J. Diliberto, R. Slade, K. Crissman, E. Hassoun and L.S. Birnbaum. 2000. Oxidative stress in female B6C3F1 mice following acute and subchronic exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Toxicol. Sci.* 54(2):390-398.
- Slikker, W., Jr., K.S. Crump, M.E. Andersen and D. Bellinger. 1996. Biologically based, quantitative risk assessment of neurotoxicants. *Fundam. Appl. Toxicol.* 29(1):18-30.
- Sloop, T.C. and G.W. Lucier. 1987. Dose-dependent elevation of Ah receptor binding by TCDD in rat liver. *Toxicol. Appl. Pharmacol.* 88(3):329-337.
- Smialowicz, R.J., M.M. Riddle, W.C. Williams and J.J. Diliberto. 1994. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on humoral immunity and lymphocyte subpopulations: differences between mice and rats. *Toxicol. Appl. Pharmacol.* 124(2):248-256.
- Smialowicz, R.J., M.J. DeVito, M.M. Riddle, W.C. Williams and L.S. Birnbaum. 1997a. Opposite effects of 2,2',4,4',5,5'-hexachlorobiphenyl and 2,3,7,8-tetrachlorodibenzo-p-dioxin on the antibody response to sheep erythrocytes in mice. *Fundam. Appl. Toxicol.* 37(2):141-149.
- Smialowicz, R.J., M.J. DeVito, M.M. Riddle, W.C. Williams and L.S. Birnbaum. 1997b. Comparative immunotoxic potency of mixtures containing polychlorinated dibenzo-*p*-dioxin (PCDDs), dibenzofurans (PCDFs), and biphenyls (PCBs). *Toxicologist.* 36(1 Pt 2):266.
- Smith, A.G., J.E. Francis, S.J. Kay and J.B. Greig. 1981. Hepatic toxicity and uroporphyrinogen decarboxylase activity following a single dose of 2,3,7,8-tetrachlorodibenzo-p-dioxin to mice. *Biochem. Pharmacol.* 30(20):2825-2830.
- Smith, A.G., B. Clothier, S. Robinson, M.J. Scullion, P. Carthew, R. Edwards, J. Luo, C.K. Lim and M. Toledano. 1998. Interaction between iron metabolism and 2,3,7,8-tetrachlorodibenzo-p-dioxin in mice with variants of the Ahr gene: a hepatic oxidative mechanism. *Mol. Pharmacol.* 53(1):52-61.
- Smith, A.G., B. Clothier, P. Carthew, N.L. Childs, P.R. Sinclair, D.W. Nebert and T.P. Dalton. 2001. Protection of the Cyp1a2(-/-) null mouse against uroporphyrin and hepatic injury following exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 173(2):89-98.
- Smith, A.H. and P. Lopipero. 2001. Invited commentary: how do the Seveso findings affect conclusions concerning TCDD as a human carcinogen? *Am. J. Epidemiol.* 153(11):1045-1047.
- Smith, A.H., D.O. Fisher, N. Pearce and C.J. Chapman. 1982a. Congenital defects and miscarriages among New Zealand 2, 4, 5-T sprayers. *Arch. Environ. Health.* 37(4):197-200.



- Smith, A.H., D.O. Fisher, N. Pearce et al. 1982b. Do agricultural chemicals cause STS? Initial findings of a case-control study in New Zealand. *Community Health Stud.* 6(114):119.
- Smith, A.H., D.O. Fisher, H.J. Giles and N. Pearce. 1983. The New Zealand soft tissue sarcoma case-control study: Interview findings concerning phenoxyacetic acid exposure. *Chemosphere.* 12(4-5):565-571.
- Smith, A.H., N.E. Pearce, D.O. Fisher, H.J. Giles, C.A. Teague and J.K. Howard. 1984. Soft tissue sarcoma and exposure to phenoxyherbicides and chlorophenols in New Zealand. *J. Natl. Cancer Inst.* 73(5):1111-1117.
- Smith, A.H., D.G. Patterson, Jr., M.L. Warner, R. MacKenzie and L.L. Needham. 1992. Serum 2,3,7,8-tetrachlorodibenzo-p-dioxin levels of New Zealand pesticide applicators and their implication for cancer hypotheses. *J. Natl. Cancer Inst.* 84(2):104-108.
- Smith, F.A., B.A. Schwetz and K.D. Nitschke. 1976. Teratogenicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin in CF-1 mice. *Toxicol. Appl. Pharmacol.* 38(3):517-523.
- Smits van Prooije, A.E., D.H. Waalkens-Berendsen and M.V.W. Wijnands. 1994. Oral two-generation reproduction study with PCBs in rats. TNO Nutrition and Food Research Institute, Zeist, the Netherlands. TNO-Report v 92.503.
- Sodersten, P. and S. Hansen. 1978. Effects of castration and testosterone, dihydrotestosterone or oestradiol replacement treatment in neonatal rats on mounting behaviour in the adult. *J. Endocrinol.* 76(2):251-260.
- Solet, D., S.R. Zoloth, C. Sullivan, J. Jewett and D.M. Michaels. 1989. Patterns of mortality in pulp and paper workers. *J. Occup. Med.* 31(7):627-630.
- Sonawane, B.R., R.J. Smialowicz and R.W. Luebke. 1988. A cancer risk-specific dose estimate for 2,3,7,8-TCDD. Appendix E: Immunotoxicity of 2,3,7,8-TCDD: review, issues, and uncertainties. U.S. Environmental Protection Agency, Office of Research and Development, Office of Health and Environmental Assessment, Reproductive Effects Assessment Group, Washington, DC. EPA/600/6-88/007AB.
- Soues, S., N. Fernandez, P. Souverain and P. Lesca. 1989a. Intracellular lipoproteins as carriers for 2,3,7,8-tetrachlorodibenzo-p-dioxin and benzo(a)pyrene in rat and mouse liver. *Biochem. Pharmacol.* 38(17):2841-2847.
- Soues, S., N. Fernandez, P. Souverain and P. Lesca. 1989b. Separation of the different classes of intrahepatic lipoproteins from various animal species. Their binding with 2,3,7,8-tetrachlorodibenzo-p-dioxin and benzo(a)pyrene. *Biochem. Pharmacol.* 38(17):2833-2839.
- Sparschu, G.L., F.L. Dunn and V.K. Rowe. 1971. Study of the teratogenicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the rat. *Food Cosmet. Toxicol.* 9(3):405-412.

- Spink, D.C., D.W. Lincoln, H.W. Dickerman and J.F. Gierthy. 1990. 2,3,7,8-Tetrachlorodibenzo-p-dioxin causes an extensive alteration of 17 beta-estradiol metabolism in MCF-7 breast tumor cells. *Proc. Natl. Acad. Sci. U. S. A.* 87(17):6917-6921.
- Spink, D.C., H.P. Eugster, D.W. Lincoln, J.D. Schuetz, E.G. Schuetz, J.A. Johnson, L.S. Kaminsky and J.F. Gierthy. 1992. 17 beta-estradiol hydroxylation catalyzed by human cytochrome P450 1A1: a comparison of the activities induced by 2,3,7,8-tetrachlorodibenzo-p-dioxin in MCF-7 cells with those from heterologous expression of the cDNA. *Arch. Biochem. Biophys.* 293(2):342-348.
- Spitsbergen, J.M., M.K. Walker, J.R. Olson and R.E. Peterson. 1991. Pathologic alterations in early life stages of lake trout, *Salvelinus namaycush*, exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin as fertilized eggs. *Aquat. Toxicol.* 19(1):41-72.
- Squire, R.A. 1980. Pathologic evaluations of selected tissues from the Dow Chemical TCDD and 2,4,5-T rat studies. Submitted to Carcinogen Assessment Group, U.S. Environmental Protection Agency on August 15. Contract no. 68-01-5092.
- Stahl, B.U. and K. Rozman. 1990. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)-induced appetite suppression in the Sprague-Dawley rat is not a direct effect on feed intake regulation in the brain. *Toxicol. Appl. Pharmacol.* 106(1):158-162.
- Stahl, B.U., A. Kettrup and K. Rozman. 1992. Comparative toxicity of four chlorinated dibenzo-p-dioxins (CDDs) and their mixture. Part I: Acute toxicity and toxic equivalency factors (TEFs). *Arch. Toxicol.* 66(7):471-477.
- Stahl, B.U., D.G. Beer, L.W. Weber and K. Rozman. 1993. Reduction of hepatic phosphoenolpyruvate carboxykinase (PEPCK) activity by 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) is due to decreased mRNA levels. *Toxicology.* 79(1):81-95.
- Stalling, D.L., L.M. Smith, J.D. Petty, J.W. Hugin, J.L. Johnson, C. Rappe and H.P. Buser. 1983. Residues of polychlorinated dibenzo-p-dioxins and dibenzofurans in Laurentian Great Lakes fish. In: *Human and Environmental Risks of Chlorinated Dioxins and Related Compounds*, R.E. Tucker, A.L. Young and A.P. Gray, Eds. Plenum Press, New York, NY. pp. 221-240.
- Stanley, J.S., K. Boggess, J. Onstot, T.M. Sack, J. Remmers, F.W. Kutz, J. Carra, P. Robinson and G.A. Mack. 1986. PCDDs and PCDFs in human adipose tissues from the EPA FY82 NHATS repository. *Chemosphere.* 15(9-12):1605-1612.
- Staples, J.E., F.G. Murante, N.C. Fiore, T.A. Gasiewicz and A.E. Silverstone. 1998a. Thymic alterations induced by 2,3,7,8-tetrachlorodibenzo-p-dioxin are strictly dependent on aryl hydrocarbon receptor activation in hemopoietic cells. *J. Immunol.* 160(8):3844-3854.

Staples, J.E., N.C. Fiore, D.E. Frazier, Jr., T.A. Gasiewicz and A.E. Silverstone. 1998b. Overexpression of the anti-apoptotic oncogene, bcl-2, in the thymus does not prevent thymic atrophy induced by estradiol or 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 151(1):200-210.

Starr, T.B. 2001. Significant shortcomings of the U.S. Environmental Protection Agency's latest draft risk characterization for dioxin-like compounds. *Toxicol. Sci.* 64(1):7-13.

Starr, T.B. 2003. Significant issues raised by meta-analyses of cancer mortality and dioxin exposure. *Environ. Health Perspect.* 111(12):1443-1447.

Staskal, D.F., J.J. Diliberto, M.J. DeVito and L.S. Birnbaum. 2005. Inhibition of human and rat CYP1A2 by TCDD and dioxin-like chemicals. *Toxicol. Sci.* 84(2):225-231.

Steenland, K. and J. Deddens. 2003. Dioxin: exposure-response analyses and risk assessment. *Ind. Health.* 41(3):175-180.

Steenland, K., S. Nowlin, B. Ryan and S. Adams. 1992. Use of multiple-cause mortality data in epidemiologic analyses: US rate and proportion files developed by the National Institute for Occupational Safety and Health and the National Cancer Institute. *Am. J. Epidemiol.* 136(7):855-862.

Steenland, K., L. Piacitelli, J. Deddens, M. Fingerhut and L.I. Chang. 1999. Cancer, heart disease, and diabetes in workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *J. Natl. Cancer Inst.* 91(9):779-786.

Steenland, K., J. Deddens and L. Piacitelli. 2001a. Cancer, heart disease, and diabetes in workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) based on an epidemiologic study. *Am. J. Epidemiol.* 154(5):451-458.

Steenland, K., J. Deddens and L. Piacitelli. 2001b. Risk assessment for 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) based on an epidemiologic study. *Am. J. Epidemiol.* 154(5):451-458.

Stehr, P.A., G. Stein, K. Webb, W. Schramm, W.B. Gedney, H.D. Donnell, S. Ayres, H. Falk, E. Sampson and S.J. Smith. 1986. A pilot epidemiologic study of possible health effects associated with 2,3,7,8-tetrachlorodibenzo-p-dioxin contaminations in Missouri. *Arch. Environ. Health.* 41(1):16-22.

Stehr-Green, P.A., P.H. Naylor and R.E. Hoffman. 1989. Diminished thymosin alpha-1 levels in persons exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *J. Toxicol. Environ. Health.* 28(3):285-295.

Steinberger, E. and A. Steinberger. 1989. Hormonal control of spermatogenesis. In: *Endocrinology*, 2nd ed., L.J. DeGroot, Ed. W.B. Saunders Co., Philadelphia, PA. pp. 2132-2136.

- Stellman, S.D. and J.M. Stellman. 1986. Estimation of exposure to Agent Orange and other defoliants among American troops in Vietnam: a methodological approach. *Am. J. Ind. Med.* 9(4):305-321.
- Stellman, S.D., J.M. Stellman and J.F. Sommer, Jr. 1988. Health and reproductive outcomes among American Legionnaires in relation to combat and herbicide exposure in Vietnam. *Environ. Res.* 47(2):150-174.
- Stephenson, R.P. 1956. A modification of receptor theory. *Br. J. Pharmacol. Chemother.* 11(4):379-393.
- Stinchcombe, S., A. Buchmann, K.W. Bock and M. Schwarz. 1995. Inhibition of apoptosis during 2,3,7,8-tetrachlorodibenzo-p-dioxin-mediated tumour promotion in rat liver. *Carcinogenesis.* 16(6):1271-1275.
- Stockbauer, J.W., R.E. Hoffman, W.F. Schramm and L.D. Edmonds. 1988. Reproductive outcomes of mothers with potential exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Am. J. Epidemiol.* 128(2):410-419.
- Stohs, S.J. 1990. Oxidative stress induced by 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Free Radic. Biol. Med.* 9(1):79-90.
- Stohs, S.J., M.Q. Hassan and W.J. Murray. 1983. Lipid peroxidation as a possible cause of TCDD toxicity. *Biochem. Biophys. Res. Co.* 111(3):854-859.
- Stohs, S.J., M.A. Shara, N.Z. Alsharif, Z.Z. Wahba and Z.A. al-Bayati. 1990. 2,3,7,8-Tetrachlorodibenzo-p-dioxin-induced oxidative stress in female rats. *Toxicol. Appl. Pharmacol.* 106(1):126-135.
- Stoscheck, C.M. and L.E. King, Jr. 1986. Role of epidermal growth factor in carcinogenesis. *Cancer Res.* 46(3):1030-1037.
- Strik, J.J.T.W.A. 1979. The occurrence of chronic-hepatic porphyria in man caused by halogenated hydrocarbons. In: *Chemical Porphyria in Man*, J.J.T.W.A. Strik and J.H. Koeman, Eds. Elsevier/North-Holland, New York, NY. pp. 3-9.
- Sulentic, C.E., M.P. Holsapple and N.E. Kaminski. 1998. Aryl hydrocarbon receptor-dependent suppression by 2,3,7, 8-tetrachlorodibenzo-p-dioxin of IgM secretion in activated B cells. *Mol. Pharmacol.* 53(4):623-629.
- Summer, C.L., J.P. Giesy, S.J. Bursian, J.A. Render, T.J. Kubiak, P.D. Jones, D.A. Verbrugge and R.J. Aulerich. 1996a. Effects induced by feeding organochlorine-contaminated carp from Saginaw Bay, Lake Huron, to laying White Leghorn hens. II. Embryotoxic and teratogenic effects. *J. Toxicol. Environ. Health.* 49(4):409-438.

- Summer, C.L., J.P. Giesy, S.J. Bursian, J.A. Render, T.J. Kubiak, P.D. Jones, D.A. Verbrugge and R.J. Aulerich. 1996b. Effects induced by feeding organochlorine-contaminated carp from Saginaw Bay, Lake Huron, to laying White Leghorn hens. I. Effects on health of adult hens, egg production, and fertility. *J. Toxicol. Environ. Health.* 49(4):389-407.
- Sunahara, G.I., K.G. Nelson, T.K. Wong and G.W. Lucier. 1987. Decreased human birth weights after in utero exposure to PCBs and PCDFs are associated with decreased placental EGF-stimulated receptor autophosphorylation capacity. *Mol. Pharmacol.* 32(5):572-578.
- Sunahara, G.I., G.W. Lucier, Z. McCoy, E.H. Bresnick, E.R. Sanchez and K.G. Nelson. 1989. Characterization of 2,3,7,8-tetrachlorodibenzo-p-dioxin-mediated decreases in dexamethasone binding to rat hepatic cytosolic glucocorticoid receptor. *Mol. Pharmacol.* 36(2):239-247.
- Suruda, A.J., E.M. Ward and M.A. Fingerhut. 1993. Identification of soft tissue sarcoma deaths in cohorts exposed to dioxin and to chlorinated naphthalenes. *Epidemiology.* 4(1):14-19.
- Suskind, R.R. 1985. Chloracne, "the hallmark of dioxin intoxication". *Scand. J. Work Environ. Health.* 11(3 Spec No):165-171.
- Suskind, R.R. and V.S. Hertzberg. 1984. Human health effects of 2,4,5-T and its toxic contaminants. *JAMA.* 251(18):2372-2380.
- Suskind, R., J. Cholak, L.J. Schater et al. 1953. Reports on clinical and environmental surveys at Monsanto Chemical Co., Nitro, West Virginia, 1953 (unpublished). University of Cincinnati, Department of Environmental Health, Cincinnati, OH.
- Suter-Hofmann, M. and C. Schlatter. 1989. Subchronic relay toxicity with a mixture of polychlorinated dioxins (PCDDs) and polychlorinated furans (PCDFs). *Chemosphere.* 18(1-6):277-282.
- Sutter, T.R. and W.F. Greenlee. 1992. Classification of members of the Ah gene battery. *Chemosphere.* 25:223-226.
- Sutter, T.R., K. Guzman, K.M. Dold and W.F. Greenlee. 1991. Targets for dioxin: genes for plasminogen activator inhibitor-2 and interleukin-1 beta. *Science.* 254(5030):415-418.
- Sutter, T.R., Y.M. Tang, C.L. Hayes, Y.Y. Wo, E.W. Jabs, X. Li, H. Yin, C.W. Cody and W.F. Greenlee. 1994. Complete cDNA sequence of a human dioxin-inducible mRNA identifies a new gene subfamily of cytochrome P450 that maps to chromosome 2. *J. Biol. Chem.* 269(18):13092-13099.

- Svensson, B.G., T. Hallberg, A. Nilsson, A. Schutz and L. Hagmar. 1994. Parameters of immunological competence in subjects with high consumption of fish contaminated with persistent organochlorine compounds. *Int. Arch. Occup. Environ. Health.* 65(6):351-358.
- Swanson, H.I. and C.A. Bradfield. 1993. The AH-receptor: genetics, structure and function. *Pharmacogenetics.* 3(5):213-230.
- Swanson, H.I. and J.H. Yang. 1998. The aryl hydrocarbon receptor interacts with transcription factor IIB. *Mol. Pharmacol.* 54(4):671-677.
- Swanson, H.I., W.K. Chan and C.A. Bradfield. 1995. DNA binding specificities and pairing rules of the Ah receptor, ARNT, and SIM proteins. *J. Biol. Chem.* 270(44):26292-26302.
- Sweeney, A. 1994. Reproductive epidemiology of dioxins. In: *Dioxins and Health*, A. Schecter, Ed. Plenum Press, New York, NY. pp. 549-558.
- Sweeney, A.M., M.R. Meyer, J.H. Aarons, J.L. Mills and R.E. LaPorte. 1988. Evaluation of methods for the prospective identification of early fetal losses in environmental epidemiology studies. *Am. J. Epidemiol.* 127(4):843-850.
- Sweeney, G.D. 1986. Porphyria cutanea tarda, or the uroporphyrinogen decarboxylase deficiency diseases. *Clin. Biochem.* 19(1):3-15.
- Sweeney, G.D., K.G. Jones, F.M. Cole, D. Basford and F. Krestynski. 1979. Iron deficiency prevents liver toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Science.* 204(4390):332-335.
- Sweeney, M.H., M.A. Fingerhut, L.B. Connally, W.E. Halperin, P.L. Moody and D.A. Marlow. 1989. Progress of the NIOSH cross-sectional medical study of workers occupationally exposed to chemicals contaminated with 2,3,7,8-TCDD. *Chemosphere.* 19(1-6):973-977.
- Sweeney, M.H., M.A. Fingerhut, D.G. Patterson, L.B. Connally, L.A. Piacitelli, J.A. Morris, A.L. Greife, R.W. Hornung, D.A. Marlow, J.E. Dugle, W.E. Halperin and L.L. Needham. 1990. Comparison of serum levels of 2,3,7,8-TCDD in TCP production workers and in an unexposed comparison group. *Chemosphere.* 20(7-9):993-1000.
- Sweeney, M.H., R.W. Hornung, D.K. Wall, M.A. Fingerhut and W.E. Halperin. 1992. Prevalence of diabetes and increased fasting serum glucose in workers with long-term exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Chemosphere.* 10:225-226.
- Sweeney, M.H., M.A. Fingerhut, J.C. Arezzo, R.W. Hornung and L.B. Connally. 1993. Peripheral neuropathy after occupational exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Am. J. Ind. Med.* 23(6):845-858.

Sweeney, M.H., G.M. Calvert, G.A. Egeland, M.A. Fingerhut, W.E. Halperin and L.A. Piacitelli. 1997. Review and update of the results of the NIOSH medical study of workers exposed to chemicals contaminated with 2,3,7,8-tetrachlorodibenzodioxin. *Teratog. Carcinog. Mutagen.* 17(4-5):241-247.

Swenberg, J.A., F.C. Richardson, J.A. Boucheron, F.H. Deal, S.A. Belinsky, M. Charbonneau and B.G. Short. 1987. High- to low-dose extrapolation: critical determinants involved in the dose response of carcinogenic substances. *Environ. Health Perspect.* 76:57-63.

Swift, L.L., T.A. Gasiewicz, G.D. Dunn, P.D. Soule and R.A. Neal. 1981. Characterization of the hyperlipidemia in guinea pigs induced by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 59(3):489-499.

Tai, H.L., J.H. McReynolds, J.A. Goldstein, H.P. Eugster, C. Sengstag, W.L. Alworth and J.R. Olson. 1993. Cytochrome P4501A1 mediates the metabolism of 2,3,7,8-tetrachlorodibenzofuran in the rat and human. *Toxicol. Appl. Pharmacol.* 123(1):34-42.

Takagi, Y., S. Aburada, T. Otake and N. Ikegami. 1987. Effect of polychlorinated biphenyls (PCBs) accumulated in the dam's body on mouse filial immunocompetence. *Arch. Environ. Contam. Toxicol.* 16(3):375-381.

Taki, I., S. Hisanaga and Y. Amagase. 1969. Report on Yusho (chlorobiphenyls poisoning) pregnant women and their fetuses. *Fukuoka Igaku Zasshi.* 60:471-474.

Takimoto, K., R. Lindahl and H.C. Pitot. 1992. Regulation of 2,3,7,8-tetrachlorodibenzo-p-dioxin-inducible expression of aldehyde dehydrogenase in hepatoma cells. *Arch. Biochem. Biophys.* 298(2):492-497.

Taleisnik, S., L. Caligaris and J.J. Astrada. 1969. Sex difference in the release of luteinizing hormone evoked by progesterone. *J. Endocrinol.* 44(3):313-321.

Tanabe, S. 1988. PCB problems in the future: foresight from current knowledge. *Environ. Pollut.* 50(1-2):5-28.

Tanaka, K., N. Tsukazaki, H. Yoshida, H. Irifune, M. Watanabe and Y. Tanimura. 1995. [Polychlorinated biphenyls (PCBs) and polychlorinated quaterphenyls (PCQs) concentrations in skin surface lipids and blood of patients with Yusho]. *Fukuoka Igaku Zasshi.* 86(5):202-206.

Taylor, B.L. and I.B. Zhulin. 1999. PAS domains: internal sensors of oxygen, redox potential, and light. *Microbiol. Mol. Biol. Rev.* 63(2):479-506.

Taylor, M.J., G.W. Lucier, J.F. Mahler, M. Thompson, A.C. Lockhart and G.C. Clark. 1992. Inhibition of acute TCDD toxicity by treatment with anti-tumor necrosis factor antibody or dexamethasone. *Toxicol. Appl. Pharmacol.* 117(1):126-132.

- Tedder, T.F., L.J. Zhou and P. Engel. 1994. The CD19/CD21 signal transduction complex of B lymphocytes. *Immunol. Today.* 15(9):437-442.
- Teeguarden, J.G., Y.P. Dragan, J. Singh, J. Vaughan, Y.H. Xu, T. Goldsworthy and H.C. Pitot. 1999. Quantitative analysis of dose- and time-dependent promotion of four phenotypes of altered hepatic foci by 2,3,7,8-tetrachlorodibenzo-p-dioxin in female Sprague-Dawley rats. *Toxicol. Sci.* 51(2):211-223.
- Telang, N.T., M. Katdare, H.L. Bradlow, M.P. Osborne and J. Fishman. 1997. Inhibition of proliferation and modulation of estradiol metabolism: novel mechanisms for breast cancer prevention by the phytochemical indole-3-carbinol. *Proc. Soc. Exp. Biol. Med.* 216(2):246-252.
- ten Tusscher, G.W., P.A. Steerenberg, H. van Loveren, J.G. Vos, A.E. von dem Borne, M. Westra, J.W. van der Slikke, K. Olie, H.J. Pluim and J.G. Koppe. 2003. Persistent hematologic and immunologic disturbances in 8-year-old Dutch children associated with perinatal dioxin exposure. *Environ. Health Perspect.* 111(12):1519-1523.
- Tenchini, M.L., C. Crimauo, G. Pacchetti, A. Mottura, S. Agosti and L. De Carli. 1983. A comparative cytogenetic study on cases of induced abortions in TCDD-exposed and nonexposed women. *Environ. Mutagen.* 5(1):73-85.
- Tephly, T.R. and B. Burchell. 1990. UDP-glucuronosyltransferases: a family of detoxifying enzymes. *Trends Pharmacol. Sci.* 11(7):276-279.
- Thakker, D., H. Yagi, W. Levin, A. Wood, A. Conney and D. Jerina. 1985. Polycyclic aromatic hydrocarbons: metabolic activation to ultimate carcinogens. In: *Bioactivation of Foreign Compounds*, M.W. Anders, Ed. Academic Press, New York, NY. pp. 177-242.
- Theobald, H.M. and R.E. Peterson. 1994. Developmental and reproductive toxicity of dioxins and other Ah receptor agonists. In: *Dioxins and Human Health*, A. Schechter, Ed. Plenum Press, New York, NY. pp. 309-345.
- Theobald, H.M. and R.E. Peterson. 1997. In utero and lactational exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin: effects on development of the male and female reproductive system of the mouse. *Toxicol. Appl. Pharmacol.* 145(1):124-135.
- Theobald, H.M., R.W. Moore, L.B. Katz, R.O. Pieper and R.E. Peterson. 1983. Enhancement of carrageenan and dextran-induced edemas by 2,3,7,8-tetrachlorodibenzo-p-dioxin and related compounds. *J. Pharmacol. Exp. Ther.* 225(3):576-583.
- Thiel, D.A., S.G. Martin, M.J. Lemeke, W.R. Lance and R.E. Peterson. 1988. Evaluation of the effects of dioxin-contaminated sludges on wild birds. In: 1988 TAPPI Environmental Conference, Norcross, GA. pp. 487-506.



- Thigpen, J.E., R.E. Faith, E.E. McConnell and J.A. Moore. 1975. Increased susceptibility to bacterial infection as a sequela of exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Infect. Immun.* 12(6):1319-1324.
- Thoma, H., W. Mucke and E. Kretschmer. 1989. Concentrations of PCDD and PCDF in human fat and liver samples. *Chemosphere.* 18(1-6):491-498.
- Thoma, H., W. Mücke and G. Kauert. 1990. Comparison of the polychlorinated dibenzo-*p*-dioxin and dibenzofuran in human tissue and human liver. *Chemosphere.* 20(3/4):433-442.
- Thomas, P.T. and R.D. Hinsdill. 1978. Effect of polychlorinated biphenyls on the immune responses of rhesus monkeys and mice. *Toxicol. Appl. Pharmacol.* 44(1):41-51.
- Thomas, P.T. and R.D. Hinsdill. 1979. The effect of perinatal exposure to tetrachlorodibenzo-*p*-dioxin on the immune response of young mice. *Drug Chem. Toxicol.* 2(1-2):77-98.
- Thomas, V.M. and T.G. Spiro. 1995. An estimation of dioxin emissions in the United States. *Toxicol. Environ. Chem.* 50(1-2):1-37.
- Thomas, W.F., W.D. Grubbs, T.G. Karrison, M.B. Lustik, R.H. Roegner and D.E. Williams. 1990. The Air Force Health Study. An Epidemiologic Investigation of Health Effects in Air Force Personnel Following Exposure to Herbicides. 1987 Followup Examination Results. USAF School of Aerospace Medicine, Brooks Air Force Base, Texas. NTIS (AD A 222 304, AD A 222 573).
- Thomaseth, K. and A. Salvan. 1998. Estimation of occupational exposure to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin using a minimal physiologic toxicokinetic model. *Environ. Health Perspect.* 106 Suppl 2:743-753.
- Thornton, J. and R.W. Goy. 1986. Female-typical sexual behavior of rhesus and defeminization by androgens given prenatally. *Horm. Behav.* 20(2):129-147.
- Thunberg, T. 1984. Effects of TCDD on vitamin A and its relation to TCDD toxicity. Banbury Report 18: Biological Mechanisms of Dioxin Action. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. pp. 333-344.
- Thunberg, T. and H. Hakansson. 1983. Vitamin A (retinol) status in the Gunn rat. The effect of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. *Arch. Toxicol.* 53(3):225-233.
- Thunberg, T., U.G. Ahlborg and H. Johnsson. 1979. Vitamin A (retinol) status in the rat after a single oral dose of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. *Arch. Toxicol.* 42(4):265-274.

- Thurmond, T.S., A.E. Silverstone, R.B. Baggs, F.W. Quimby, J.E. Staples and T.A. Gasiewicz. 1999. A chimeric aryl hydrocarbon receptor knockout mouse model indicates that aryl hydrocarbon receptor activation in hematopoietic cells contributes to the hepatic lesions induced by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 158(1):33-40.
- Thurmond, T.S., J.E. Staples, A.E. Silverstone and T.A. Gasiewicz. 2000. The aryl hydrocarbon receptor has a role in the in vivo maturation of murine bone marrow B lymphocytes and their response to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 165(3):227-236.
- Tian, Y., S. Ke, M.S. Denison, A.B. Rabson and M.A. Gallo. 1999. Ah receptor and NF-kappaB interactions, a potential mechanism for dioxin toxicity. *J. Biol. Chem.* 274(1):510-515.
- Tillitt, D.E. and P.J. Wright. 1997. Dioxin-like embryotoxicity of a Lake Michigan lake trout extract to developing lake trout. *Organohalogen Comp.* 34:221-225.
- Tilson, H.A., G.J. Davis, J.A. McLachlan and G.W. Lucier. 1979. The effects of polychlorinated biphenyls given prenatally on the neurobehavioral development of mice. *Environ. Res.* 18(2):466-474.
- Tognoni, G. and A. Bonaccorsi. 1982. Epidemiological problems with TCDD (a critical view). *Drug Metab. Rev.* 13(3):447-469.
- Tomar, R.S. and N.I. Kerkvliet. 1991. Reduced T-helper cell function in mice exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Toxicol. Lett.* 57(1):55-64.
- Tomita, S., C.J. Sinal, S.H. Yim and F.J. Gonzalez. 2000. Conditional disruption of the aryl hydrocarbon receptor nuclear translocator (Arnt) gene leads to loss of target gene induction by the aryl hydrocarbon receptor and hypoxia-inducible factor 1alpha. *Mol. Endocrinol.* 14(10):1674-1681.
- Tonn, T., C. Esser, E.M. Schneider, W. Steinmann-Steiner-Haldenstatt and E. Gleichmann. 1996. Persistence of decreased T-helper cell function in industrial workers 20 years after exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Environ. Health Perspect.* 104(4):422-426.
- Toth, K., S. Somfai-Relle, J. Sugar and J. Bence. 1979. Carcinogenicity testing of herbicide 2,4,5-trichlorophenoxyethanol containing dioxin and of pure dioxin in Swiss mice. *Nature.* 278(5704):548-549.
- Townsend, J.C., K.M. Bodner, P.F. Van Peenen, R.D. Olson and R.R. Cook. 1982. Survey of reproductive events of wives of employees exposed to chlorinated dioxins. *Am. J. Epidemiol.* 115(5):695-713.

- Toyoshiba, H., N.J. Walker, A.J. Bailer and C.J. Portier. 2004. Evaluation of toxic equivalency factors for induction of cytochromes P450 CYP1A1 and CYP1A2 enzyme activity by dioxin-like compounds. *Toxicol. Appl. Pharmacol.* 194(2):156-168.
- Tritscher, A.M., G.C. Clark, C. Sewall, R.C. Sills, R. Maronpot and G.W. Lucier. 1995. Persistence of TCDD-induced hepatic cell proliferation and growth of enzyme altered foci after chronic exposure followed by cessation of treatment in DEN initiated female rats. *Carcinogenesis.* 16(11):2807-2811.
- Tritscher, A.M., A.M. Seacat, J.D. Yager, J.D. Groopman, B.D. Miller, D. Bell, T.R. Sutter and G.W. Lucier. 1996. Increased oxidative DNA damage in livers of 2,3,7,8-tetrachlorodibenzo-p-dioxin treated intact but not ovariectomized rats. *Cancer Lett.* 98(2):219-225.
- Tritscher, A., J. Mahler, C.J. Portier, G.W. Lucier and N. Walker. 1999. TCDD-induced lesions in rat lung after chronic oral exposure. *Dioxin '99: 19th International Symposium on Halogenated Environmental Organic Pollutants and POPs.* Venice, Italy. *Organohalogen Comp.* 42:285-288.
- Tritscher, A.M., J.A. Goldstein, C.J. Portier, Z. McCoy, G.C. Clark and G.W. Lucier. 1992. Dose-response relationships for chronic exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin in a rat tumor promotion model: quantification and immunolocalization of CYP1A1 and CYP1A2 in the liver. *Cancer Res.* 52(12):3436-3442.
- Tritscher, A.M., J. Mahler, C.J. Portier, G.W. Lucier and N.J. Walker. 2000. Induction of lung lesions in female rats following chronic exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Pathol.* 28(6):761-769.
- Truelove, J., D. Grant, J. Mes, H. Tryphonas, L. Tryphonas and Z. Zawidzka. 1982. Polychlorinated biphenyl toxicity in the pregnant cynomolgus monkey: a pilot study. *Arch. Environ. Contam. Toxicol.* 11(5):583-588.
- Tryphonas, H., S. Hayward, L. O'Grady, J.C. Loo, D.L. Arnold, F. Bryce and Z.Z. Zawidzka. 1989. Immunotoxicity studies of PCB (Aroclor 1254) in the adult rhesus (*Macaca mulatta*) monkey--preliminary report. *Int. J. Immunopharmacol.* 11(2):199-206.
- Tryphonas, H., M.I. Luster, G. Schiffman, L.L. Dawson, M. Hodgen, D. Germolec, S. Hayward, F. Bryce, J.C. Loo and F. Mandy. 1991a. Effect of chronic exposure of PCB (Aroclor 1254) on specific and nonspecific immune parameters in the rhesus (*Macaca mulatta*) monkey. *Fundam. Appl. Toxicol.* 16(4):773-786.
- Tryphonas, H., M.I. Luster, K.L. White, Jr., P.H. Naylor, M.R. Erdos, G.R. Burlison, D. Germolec, M. Hodgen, S. Hayward and D.L. Arnold. 1991b. Effects of PCB (Aroclor 1254) on non-specific immune parameters in rhesus (*Macaca mulatta*) monkeys. *Int. J. Immunopharmacol.* 13(6):639-648.

- Tsuji, H., K. Ikeda, N. Suzuki and M. Fujishima. 1995. [Laboratory findings in patients with Yusho: 26 year follow-up study]. *Fukuoka Igaku Zasshi*. 86(5):273-276.
- Tsukamoto, H. 1969. Group of chemical studies on Yusho: the chemical studies on detection on toxic compounds in the rice bran oils used by the patients of Yusho. *Fukuoka Igaku Zasshi*. 60:497-512.
- Tuchmann-Duplessis, H. 1977. Embryo problems posed by the Seveso accident. *Le Concours Medical*. 99(44):6889-6897.
- Tuchmann-Duplessis, H. 1980a. Direct testimony before the US EPA. FIFRA Docket No. 415, Exhibit 864.
- Tuchmann-Duplessis, H. 1980b. Tables in direct testimony before the US EPA. FIFRA Docket No. 415, Exhibit 864a.
- Tucker, A.N., S.J. Vore and M.I. Luster. 1986. Suppression of B cell differentiation by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Mol. Pharmacol*. 29(4):372-377.
- Tuey, D.B. and H.B. Matthews. 1980. Distribution and excretion of 2,2',4,4',5,5'-hexabromobiphenyl in rats and man: pharmacokinetic model predictions. *Toxicol. Appl. Pharmacol*. 53(3):420-431.
- Tuomisto, J. and R. Pohjanvirta. 1987. The Long-Evans rat: a prototype of an extremely TCDD-susceptible strain variant. *Pharmacol. Toxicol*. 60(Suppl. 1):72.
- Tuomisto, J.T., M. Viluksela, R. Pohjanvirta and J. Tuomisto. 1999. The AH receptor and a novel gene determine acute toxic responses to TCDD: segregation of the resistant alleles to different rat lines. *Toxicol. Appl. Pharmacol*. 155(1):71-81.
- Turner, J.N. and D.N. Collins. 1983. Liver morphology in guinea pigs administered either pyrolysis products of a polychlorinated biphenyl transformer fluid or 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol*. 67(3):417-429.
- Turteltaub, K.W., J.S. Felton, B.L. Gledhill, J.S. Vogel, J.R. Southon, M.W. Caffee, R.C. Finkel, D.E. Nelson, I.D. Proctor and J.C. Davis. 1990. Accelerator mass spectrometry in biomedical dosimetry: relationship between low-level exposure and covalent binding of heterocyclic amine carcinogens to DNA. *Proc. Natl. Acad. Sci. U. S. A*. 87(14):5288-5292.
- Tuteja, N., F.J. Gonzalez and D.W. Nebert. 1985. Developmental and tissue-specific differential regulation of the mouse dioxin-inducible P1-450 and P3-450 genes. *Dev. Biol*. 112(1):177-184.

U.S. EPA (U.S. Environmental Protection Agency). 1981. Risk assessment on (2,4,5-tetrachlorophenoxy) acetic acid [2,4,5-T], (2,4,5-trichlorophenoxy) propionic acid, and 2,3,7,8-tetrachlorodibenzo-*p*-dioxin [TCDD]. U.S. Environmental Protection Agency, Office of Health and Environmental Assessment, Washington, DC. EPA/600/6-81/003.

U.S. EPA (U.S. Environmental Protection Agency). 1985. Health effects assessment document for polychlorinated dibenzo-*p*-dioxins. Prepared by the Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office, Cincinnati, OH, for the Office of Emergency and Remedial Response, Washington, DC. EPA/600/8-84/014F.

U.S. EPA (U.S. Environmental Protection Agency). 1987a. Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-*p*-dioxins and -dibenzofurans (CDDs and CDFs). U.S. Environmental Protection Agency, Risk Assessment Forum, Washington, DC. EPA/625/3-87/012.

U.S. EPA (U.S. Environmental Protection Agency). 1987b. The risk assessment guidelines of 1986. Office of Health and Environmental Assessment, Washington, DC. EPA/600/8-87/045.

U.S. EPA (U.S. Environmental Protection Agency). 1988. A cancer risk-specific dose estimate for 2,3,7,8-TCDD. U.S. Environmental Protection Agency, Office of Research and Development, Office of Health and Environmental Assessment, Washington, DC. EPA/600/6-88/007Aa.

U.S. EPA (U.S. Environmental Protection Agency). 1989a. Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-*p*-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment Forum, Washington, DC. EPA/625/3-89/016.

U.S. EPA (U.S. Environmental Protection Agency). 1989b. Review of draft documents: a cancer risk-specific dose for 2,3,7,8-TCDD and estimating risk exposure to 2,3,7,8-TCDD. U.S. Environmental Agency, Washington, DC.

U.S. EPA (U.S. Environmental Protection Agency). 1989c. Review of draft documents: a cancer risk-specific dose estimate for 2,3,7,8-TCDD. U.S. Environmental Protection Agency, Science Advisory Board Ad Hoc Dioxin Panel, Washington, DC.

U.S. EPA (U.S. Environmental Protection Agency). 1991a. Bioaccumulation of selected pollutants in fish: v. 1, a national study. Office of Water Regulations and Standards, Washington, DC. 506/6-90/001a.

U.S. EPA (U.S. Environmental Protection Agency). 1991b. Guidelines for developmental toxicity risk assessment. U.S. Environmental Protection Agency, Risk Assessment Forum, Washington, DC. EPA/600/FR-91/001.

U.S. EPA (U.S. Environmental Protection Agency). 1991c. Workshop report on toxicity equivalency factors for polychlorinated biphenyls congeners. U.S. Environmental Protection Agency, Risk Assessment Forum, Washington, DC. EPA/625/3-91/020.

U.S. EPA (U.S. Environmental Protection Agency). 1992a. Draft report: a cross species-scaling factor for carcinogen risk assessment based on equivalence of mg/kg<sup>3</sup>/4/day. Fed. Reg. 57(109):24152-24173.

U.S. EPA (U.S. Environmental Protection Agency). 1992b. National study of chemical residues in fish. U.S. Environmental Protection Agency, Office of Science and Technology, Washington, DC. EPA/823-R-02-008.

U.S. EPA (U.S. Environmental Protection Agency). 1994. Health assessment document for 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD) and related compounds, vol 1-3 External review draft. Office of Health and Environmental Assessment, Office of Research and Development, Washington, DC. EPA/600/BP-92/001a, b, c. NTIS PB94-205457.

U.S. EPA (U.S. Environmental Protection Agency). 1995a. An SAB Report: a second look at dioxin. U.S. Environmental Protection Agency, Washington, DC. EPA-SAB-EC-95-021.

U.S. EPA (U.S. Environmental Protection Agency). 1995b. Letter to the Administrator. Subject: Science Advisory Board's review of the Draft Dioxin Exposure and Health Effects Reassessment Documents. U.S. Environmental Protection Agency, Washington, DC. EPA/SAB/EC/95/021.

U.S. EPA (U.S. Environmental Protection Agency). 1996a. PCBs: cancer dose-response assessment and application to environmental mixtures. U.S. Environmental Protection Agency, Office of Research and Development, National Center for Environmental Assessment, Washington, DC. EPA/600/P-96/001F.

U.S. EPA (U.S. Environmental Protection Agency). 1996b. Proposed guidelines for carcinogen risk assessment. U.S. Environmental Protection Agency, Office of Research and Development, Washington, DC. EPA/600/P-92/003C.

U.S. EPA (U.S. Environmental Protection Agency). 1998. Database of sources of environmental releases of dioxin-like compounds in the United States. External review draft. U.S. Environmental Protection Agency, Washington, DC. EPA/600/P-98/002Ab.

U.S. EPA (U.S. Environmental Protection Agency). 1999a. Benchmark Dose Software (BMDS) version 1.1b. U.S. Environmental Protection Agency, Washington, DC.

- U.S. EPA (U.S. Environmental Protection Agency). 1999b. Revised proposed guidelines for carcinogen risk assessment. SAB review draft. U.S. Environmental Protection Agency, Science Advisory Board, Washington, DC. NCEA-F-0644.
- U.S. EPA (U.S. Environmental Protection Agency). 2001a. Dioxin Reassessment: an SAB Review of the Office of Research and Development's Reassessment of Dioxin. U.S. Environmental Protection Agency, Science Advisory Board, Washington, DC. EPA-SAB-EC-01-006.
- U.S. EPA (U.S. Environmental Protection Agency). 2001b. Workshop report on the application of 2,3,7,8-TCDD toxicity equivalence factors to fish and wildlife. U.S. Environmental Protection Agency, Risk Assessment Forum, Washington, DC. EPA/630/R-01/002.
- U.S. EPA (U.S. Environmental Protection Agency). 2003. Draft final guidelines for carcinogen risk assessment. Draft Final. U.S. Environmental Protection Agency, Risk Assessment Forum, Washington, DC. EPA/630/P-03/001A. Available at [www.epa.gov/ncea/raf/cancer2003.htm](http://www.epa.gov/ncea/raf/cancer2003.htm).
- Umbreit, T.H. and M.A. Gallo. 1988. Physiological implications of estrogen receptor modulation by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Lett.* 42(1):5-14.
- Umbreit, T.H., E.J. Hesse and M.A. Gallo. 1986a. Bioavailability of dioxin in soil from a 2,4,5-T manufacturing site. *Science*. 232(4749):497-499.
- Umbreit, T.H., E.J. Hesse and M.A. Gallo. 1986b. Comparative toxicity of TCDD contaminated soil from Times Beach, Missouri, and Newark, New Jersey. *Chemosphere*. 15(9-12):2121-2124.
- Unkila, M., R. Pohjanvirta, E. MacDonald and J. Tuomisto. 1993. Differential effect of TCDD on brain serotonin metabolism in a TCDD-susceptible and TCDD-resistant rat strain. *Chemosphere*. 270(1-3):401-406.
- Unkila, M., R. Pohjanvirta, E. MacDonald and J. Tuomisto. 1994a. Characterization of 2,3,7,8-tetrachlorodibenzo-p-dioxin-induced brain serotonin metabolism in the rat. *Eur. J. Pharmacol.* 270(2-3):157-166.
- Unkila, M., R. Pohjanvirta, E. MacDonald, J.T. Tuomisto and J. Tuomisto. 1994b. Dose response and time course of alterations in tryptophan metabolism by 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in the most TCDD-susceptible and the most TCDD-resistant rat strain: relationship with TCDD lethality. *Toxicol. Appl. Pharmacol.* 128(2):280-292.
- Unkila, M., M. Ruotsalainen, R. Pohjanvirta, M. Viluksela, E. MacDonald, J.T. Tuomisto, K. Rozman and J. Tuomisto. 1995. Effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on tryptophan and glucose homeostasis in the most TCDD-susceptible and the most TCDD-resistant species, guinea pigs and hamsters. *Arch. Toxicol.* 69(10):677-683.

- Unkila, M., R. Pohjanvirta and J. Tuomisto. 1998. Body weight loss and changes in tryptophan homeostasis by chlorinated dibenzo-p-dioxin congeners in the most TCDD-susceptible and the most TCDD-resistant rat strain. *Arch. Toxicol.* 72(12):769-776.
- Unknown. 1987. *Diabetes Epidemiology Research International*. Diabetes Epidemiology Research International.
- Urabe, H. and M. Asahi. 1985. Past and current dermatological status of yusho patients. *Environ. Health Perspect.* 59:11-15.
- Van Antwerp, D.J., S.J. Martin, T. Kafri, D.R. Green and I.M. Verma. 1996. Suppression of TNF-alpha-induced apoptosis by NF-kappaB. *Science.* 274(5288):787-789.
- van Birgelen, A.P., J. Van der Kolk, K.M. Fase, I. Bol, H. Poiger, A. Brouwer and H. van den Berg. 1994a. Toxic potency of 3,3',4,4',5-pentachlorobiphenyl relative to and in combination with 2,3,7,8-tetrachlorodibenzo-p-dioxin in a subchronic feeding study in the rat. *Toxicol. Appl. Pharmacol.* 127(2):209-221.
- van Birgelen, A.P., J. Van der Kolk, K.M. Fase, I. Bol, H. Poiger, H. van den Berg and A. Brouwer. 1994b. Toxic potency of 2,3,3',4,4',5-hexachlorobiphenyl relative to and in combination with 2,3,7,8-tetrachlorodibenzo-p-dioxin in a subchronic feeding study in the rat. *Toxicol. Appl. Pharmacol.* 126(2):202-213.
- van Birgelen, A.P., E.A. Smit, I.M. Kampen, C.N. Groeneveld, K.M. Fase, J. Van der Kolk, H. Poiger, M. van den Berg, J.H. Koeman and A. Brouwer. 1995a. Subchronic effects of 2,3,7,8-TCDD or PCBs on thyroid hormone metabolism: use in risk assessment. *Eur. J. Pharmacol.* 293(1):77-85.
- van Birgelen, A.P., J. Van der Kolk, K.M. Fase, I. Bol, H. Poiger, A. Brouwer and M. van den Berg. 1995b. Subchronic dose-response study of 2,3,7,8-tetrachlorodibenzo-p-dioxin in female Sprague-Dawley rats. *Toxicol. Appl. Pharmacol.* 132(1):1-13.
- van Birgelen, A.P., D.G. Ross, M.J. DeVito and L.S. Birnbaum. 1996a. Interactive effects between 2,3,7,8-tetrachlorodibenzo-p-dioxin and 2,2',4,4',5,5'-hexachlorobiphenyl in female B6C3F1 mice: tissue distribution and tissue-specific enzyme induction. *Fundam. Appl. Toxicol.* 34(1):118-131.
- van Birgelen, A.P., K.M. Fase, J. Van der Kolk, H. Poiger, A. Brouwer, W. Seinen and M. van den Berg. 1996b. Synergistic effect of 2,2',4,4',5,5'-hexachlorobiphenyl and 2,3,7,8-tetrachlorodibenzo-p-dioxin on hepatic porphyrin levels in the rat. *Environ. Health Perspect.* 104(5):550-557.



van Birgelen, A.P., M.J. DeVito, J.M. Akins, D.G. Ross, J.J. Diliberto and L.S. Birnbaum. 1996c. Relative potencies of polychlorinated dibenzo-p-dioxins, dibenzofurans, and biphenyls derived from hepatic porphyrin accumulation in mice. *Toxicol. Appl. Pharmacol.* 138(1):98-109.

van Birgelen, A.P.J.M., D. Nix-Stevenson, M.J. DeVito, J.J. Diliberto and L.S. Birnbaum. 1996d. Synergistic effects on porphyrin metabolism in female B6C3F1 mice after subchronic exposure to a mixture of PCDDs, PCDFs, and PCBs. *Organohalogen Comp.* 29:300-305.

van Birgelen, A.P.J.M., D.G. Ross, M.J. DeVito et al. 1996e. Tissue CYP1A1 activity reflects tissue 2,3,7,8-tetrachlorodibenzo-*p*-dioxin concentration. *Organohalogen Comp.* 23:439-442.

van Birgelen, A.P.J.M., M.J. DeVito and L.S. Birnbaum. 1996f. Toxic equivalency factors derived from cytochrome P-450 induction in mice are predictive for cytochrome P-450 induction after subchronic exposure to a mixture of PCDDs, PCDFs and PCBs in female b6C3F1 mice and Sprague-Dawley rats. *Organohalogen Comp.* 29:251-256.

van Birgelen, A.P.J.M., M.J. DeVito, D. Orzech, N. Walker, L.S. Birnbaum, J. Bucher and Lucier G. 1997a. Design of 2-year bioassays with dioxin-like compounds in female Sprague-Dawley rats. *Dioxin '97: 17th International Symposium on chlorinated Dioxins and related compounds, Indianapolis, IN, USA.* *Organohalogen Comp.* 34:154-159.

van Birgelen, A.P.J.M., T.J. Visser, E. Kaptein, P.R. Kodavanti, E.C. Derr-Yellin and L.S. Birnbaum. 1997b. Synergistic effects on thyroid hormone metabolism in female Sprague Dawley rats after subchronic exposure to mixtures of PCDDs, PCDFs and PCBs. *Organohalogen Comp.* 34:370-375.

van Birgelen, A.P., C.D. Hebert, M.L. Wenk, L.K. Grimes, R.E. Chapin, J. Mahler, G.S. Travlos and J.R. Bucher. 1999a. Toxicity of 3,3',4,4'-tetrachloroazobenzene in rats and mice. *Toxicol. Appl. Pharmacol.* 156(2):147-159.

van Birgelen, A.P., J.D. Johnson, A.F. Fuciarelli et al. 1999b. Dose and time-response of TCDD in Tg.AC mice after dermal and oral exposure. *Organohalogen Comp.* 42:235-239.

van den Berg, H., J.J. De, P. Eckhart and F.W. Van der Wielen. 1989. Disposition and elimination of three polychlorinated dibenzofurans in the liver of the rat. *Fundam. Appl. Toxicol.* 12(4):738-747.

van den Berg, M., C. Heeremans, E. Veenhoven and K. Olie. 1987a. Transfer of polychlorinated dibenzo-p-dioxins and dibenzofurans to fetal and neonatal rats. *Fundam. Appl. Toxicol.* 9(4):635-644.

van den Berg, M., M. Sinke and H. Wever. 1987b. Vehicle dependent bioavailability of polychlorinated dibenzo-*p*-dioxins (PCDDs) and -dibenzofurans (PCDFs) in the rat. *Chemosphere*. 16(6):1193-1203.

van den Berg, H., J.J. De, H. Poiger and J.R. Olson. 1994. The toxicokinetics and metabolism of polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs) and their relevance for toxicity. *Crit Rev. Toxicol.* 24(1):1-74.

van den Berg, M., T.L. Sinnige, M. Tysklind, A.T. Bosveld, M. Hulsman, C. Koopman-Esseboom and J.G. Koppe. 1995. Individual PCBs as predictors for concentrations of non and mono-ortho PCBs in human milk. *Environ. Sci. Pollut. Res. Int.* 2(2):73-82.

van den Berg, M., L. Birnbaum, A.T. Bosveld, B. Brunstrom, P. Cook, M. Feeley, J.P. Giesy, A. Hanberg, R. Hasegawa, S.W. Kennedy, T. Kubiak, J.C. Larsen, F.X. van Leeuwen, A.K. Liem, C. Nolt, R.E. Peterson, L. Poellinger, S. Safe, D. Schrenk, D. Tillitt, M. Tysklind, M. Younes, F. Waern and T. Zacharewski. 1998. Toxic equivalency factors (TEFs) for PCBs, PCDDs, PCDFs for humans and wildlife. *Environ. Health Perspect.* 106(12):775-792.

van den Berg, M., R.E. Peterson and D. Schrenk. 2000. Human risk assessment and TEFs. *Food Addit. Contam.* 17(4):347-358.

van den Heuvel, J.P., G.C. Clark, M.C. Kohn, A.M. Tritscher, W.F. Greenlee, G.W. Lucier and D.A. Bell. 1994. Dioxin-responsive genes: examination of dose-response relationships using quantitative reverse transcriptase-polymerase chain reaction. *Cancer Res.* 54:62-68.

Van der Kolk, J., A.P.J.M. van Birgelen, H. Poiger and C. Schlatter. 1992. Interactions of 2,2',4,4',5,5'-hexachlorobiphenyl and 2,3,7,8-tetrachlorodibenzo-*p*-dioxin in subchronic feeding study in the rat. *Chemosphere*. 25(12):2023-2027.

van der Molen, G.W., S.A. Kooijman and W. Slob. 1996. A generic toxicokinetic model for persistent lipophilic compounds in humans: an application to TCDD. *Fundam. Appl. Toxicol.* 31(1):83-94.

van der Molen, G.W., S.A. Kooijman, J.E. Michalek and W. Slob. 1998. The estimation of elimination rates of persistent compounds: a re-analysis of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin levels in Vietnam veterans. *Chemosphere*. 37(9-12):1833-1844.

van der Molen, G.W., B.A. Kooijman, J. Wittsiepe, P. Schrey, D. Flesch-Janys and W. Slob. 2000. Estimation of dioxin and furan elimination rates with a pharmacokinetic model. *J. Expo. Anal. Environ. Epidemiol.* 10(6 Pt 1):579-585.

- van der Plas, S.A., M. Haag-Gronlund, G. Scheu, L. Warngard, M. van den Berg, P. Wester, J.H. Koeman and A. Brouwer. 1999. Induction of altered hepatic foci by a mixture of dioxin-like compounds with and without 2,2',4,4',5,5'-hexachlorobiphenyl in female Sprague-Dawley rats. *Toxicol. Appl. Pharmacol.* 156(1):30-39.
- van der Plas, S.A., H. Sundberg, H. van den Berg, G. Scheu, P. Wester, S. Jensen, A. Bergman, B.J. de, J.H. Koeman and A. Brouwer. 2000. Contribution of planar (0-1 ortho) and nonplanar (2-4 ortho) fractions of Aroclor 1260 to the induction of altered hepatic foci in female Sprague-Dawley rats. *Toxicol. Appl. Pharmacol.* 169(3):255-268.
- van Leeuwen, F.X.R. 1997. Derivation of toxic equivalency factors (TEFs) for dioxin-like compounds in humans and wildlife. *Organohalogen Comp.* 34:237.
- van Logten, M.J., B.N. Gupta, E.E. McConnell and J.A. Moore. 1980. Role of the endocrine system in the action of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on the thymus. *Toxicology.* 15(2):135-144.
- Van Miller, J.P., R.J. Marlar and J.R. Allen. 1976. Tissue distribution and excretion of tritiated tetrachlorodibenzo-p-dioxin in non-human primates and rats. *Food Cosmet. Toxicol.* 14(1):31-34.
- Van Miller, J.P., J.J. Lalich and J.R. Allen. 1977a. Increased incidence of neoplasms in rats exposed to low levels of tetrachlorodibenzo-p-dioxin. *Chemosphere.* 6(7):537-544.
- Van Miller, J.P., J.J. Lalich and J.R. Allen. 1977b. Increased incidence of neoplasms in rats exposed to low levels of 2,3,7,8-tetrachlorodibenzodioxin. *Chemosphere.* 6(10):625-632.
- Vanden Heuvel, J.P. and Lucier G. 1993. Environmental toxicology of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans. *Environ. Health Perspect.* 100:189-200.
- Vanden Heuvel, J.P., G.C. Clark, M.C. Kohn, A.M. Tritscher, W.F. Greenlee, G.W. Lucier and D.A. Bell. 1994. Dioxin-responsive genes: examination of dose-response relationships using quantitative reverse transcriptase-polymerase chain reaction. *Cancer Res.* 54(1):62-68.
- Vannier, B. and J.P. Raynaud. 1980. Long-term effects of prenatal oestrogen treatment on genital morphology and reproductive function in the rat. *J. Reprod. Fertil.* 59(1):43-49.
- Vartiainen, T., J.J. Jaakkola, S. Saarikoski and J. Tuomisto. 1998. Birth weight and sex of children and the correlation to the body burden of PCDDs/PCDFs and PCBs of the mother. *Environ. Health Perspect.* 106(2):61-66.

- Vaziri, C., A. Schneider, D.H. Sherr and D.V. Faller. 1996. Expression of the aryl hydrocarbon receptor is regulated by serum and mitogenic growth factors in murine 3T3 fibroblasts. *J. Biol. Chem.* 271(42):25921-25927.
- Vecchi, A., A. Mantovani, M. Sironi, W. Luini, M. Cairo and S. Garattini. 1980. Effect of acute exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin on humoral antibody production in mice. *Chem. Biol. Interact.* 30(3):337-342.
- Vecchi, A., M. Sironi, M. Antonia et al. 1983a. Immunosuppressive effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin in strains of mice with different susceptibility. *Proc. Natl. Acad. Sci. U. S. A.* 87:6917-6921.
- Vecchi, A., M. Sironi, M.A. Canegrati, M. Recchia and S. Garattini. 1983b. Immunosuppressive effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin in strains of mice with different susceptibility to induction of aryl hydrocarbon hydroxylase. *Toxicol. Appl. Pharmacol.* 68(3):434-441.
- Velu, T.J. 1990. Structure, function and transforming potential of the epidermal growth factor receptor. *Mol. Cell Endocrinol.* 70(3):205-216.
- Vena, J., P. Boffetta, H. Becher, T. Benn, H.B. Bueno-de-Mesquita, D. Coggon, D. Colin, D. Flesch-Janys, L. Green, T. Kauppinen, M. Littorin, E. Lynge, J.D. Mathews, M. Neuberger, N. Pearce, A.C. Pesatori, R. Saracci, K. Steenland and M. Kogevinas. 1998. Exposure to dioxin and nonneoplastic mortality in the expanded IARC international cohort study of phenoxy herbicide and chlorophenol production workers and sprayers. *Environ. Health Perspect.* 106 Suppl 2:645-653.
- Vickers, A.E. and G.W. Lucier. 1991. Estrogen receptor, epidermal growth factor receptor and cellular ploidy in elutriated subpopulations of hepatocytes during liver tumor promotion by 17 alpha-ethinylestradiol in rats. *Carcinogenesis.* 12(3):391-399.
- Vickers, A.E., K. Nelson, Z. McCoy and G.W. Lucier. 1989. Changes in estrogen receptor, DNA ploidy, and estrogen metabolism in rat hepatocytes during a two-stage model for hepatocarcinogenesis using 17 alpha-ethinylestradiol as the promoting agent. *Cancer Res.* 49(23):6512-6520.
- Viluksela, M., B.U. Stahl and K.K. Rozman. 1995. Tissue-specific effects of 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) on the activity of phosphoenolpyruvate carboxykinase (PEPCK) in rats. *Toxicol. Appl. Pharmacol.* 135(2):308-315.
- Viluksela, M., B.U. Stahl, L.S. Birnbaum and K.K. Rozman. 1997a. Subchronic/chronic toxicity of 1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin (HpCDD) in rats. Part II. Biochemical effects. *Toxicol. Appl. Pharmacol.* 146(2):217-226.
- Viluksela, M., B.U. Stahl, L.S. Birnbaum, K.W. Schramm, A. Kettrup and K.K. Rozman. 1997b. Subchronic/chronic toxicity of 1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin (HpCDD) in rats. Part I. Design, general observations, hematology, and liver concentrations. *Toxicol. Appl. Pharmacol.* 146(2):207-216.

- Viluksela, M., B.U. Stahl, L.S. Birnbaum and K.K. Rozman. 1998a. Subchronic/chronic toxicity of a mixture of four chlorinated dibenzo-p-dioxins in rats. II. Biochemical effects. *Toxicol. Appl. Pharmacol.* 151(1):70-78.
- Viluksela, M., B.U. Stahl, L.S. Birnbaum, K.W. Schramm, A. Kettrup and K.K. Rozman. 1998b. Subchronic/chronic toxicity of a mixture of four chlorinated dibenzo-p-dioxins in rats. I. Design, general observations, hematology, and liver concentrations. *Toxicol. Appl. Pharmacol.* 151(1):57-69.
- Viluksela, M., M. Unkila, R. Pohjanvirta, J.T. Tuomisto, B.U. Stahl, K.K. Rozman and J. Tuomisto. 1999. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on liver phosphoenolpyruvate carboxykinase (PEPCK) activity, glucose homeostasis and plasma amino acid concentrations in the most TCDD-susceptible and the most TCDD-resistant rat strains. *Arch. Toxicol.* 73(6):323-336.
- Vineis, P., B. Terracini, G. Ciccone, A. Cignetti, E. Colombo, A. Donna, L. Maffi, R. Pisa, P. Ricci, E. Zanini et al. 1986. Phenoxy herbicides and soft-tissue sarcomas in female rice weeders: a population-based case-referent study. *Scand. J. Work Environ. Health.* 13:9-17.
- Vineis, P., B. Terracini, G. Ciccone, A. Cignetti, E. Colombo, A. Donna, R. Pisa, P. Ricci, E. Zanini et al. 1992. The role of occupational exposure and immunodeficiency in B-cell malignancies. Working Group on the Epidemiology of Hematolymphopoietic Malignancies in Italy. *Epidemiology.* 3(3):266-270.
- Vinopal, J.H. and J.E. Casida. 1973. Metabolic stability of 2, 3, 7, 8-tetrachlorodibenzo-P-dioxin in mammalian liver microsomal systems and in living mice. *Arch. Environ. Contam. Toxicol.* 1(2):122-132.
- Voegel, J.J., M.J. Heine, C. Zechel, P. Chambon and H. Gronemeyer. 1996. TIF2, a 160 kDa transcriptional mediator for the ligand-dependent activation function AF-2 of nuclear receptors. *EMBO J.* 15(14):3667-3675.
- Vogel, C., S. Donat, O. Dohr, J. Kremer, C. Esser, M. Roller and J. Abel. 1997. Effect of subchronic 2,3,7,8-tetrachlorodibenzo-p-dioxin exposure on immune system and target gene responses in mice: calculation of benchmark doses for CYP1A1 and CYP1A2 related enzyme activities. *Arch. Toxicol.* 71(6):372-382.
- Voorman, R. and S.D. Aust. 1987. Specific binding of polyhalogenated aromatic hydrocarbon inducers of cytochrome P-450d to the cytochrome and inhibition of its estradiol 2-hydroxylase activity. *Toxicol. Appl. Pharmacol.* 90(1):69-78.
- Voorman, R. and S.D. Aust. 1989. TCDD (2,3,7,8-tetrachlorodibenzo-p-dioxin) is a tight binding inhibitor of cytochrome P-450d. *J. Biochem. Toxicol.* 4(2):105-109.
- Vorderstrasse, B.A., S.E. Fenton, A.A. Bohn, J.A. Cundiff and B.P. Lawrence. 2004. A novel effect of dioxin: exposure during pregnancy severely impairs mammary gland differentiation. *Toxicol. Sci.* 78(2):248-257.

- Vorherr, H., R.H. Messer, U.F. Vorherr, S.W. Jordan and M. Kornfeld. 1979. Teratogenesis and carcinogenesis in rat offspring after transplacental and transmammary exposure to diethylstilbestrol. *Biochem. Pharmacol.* 28(12):1865-1877.
- Vos, J.G. and J.A. Moore. 1974. Suppression of cellular immunity in rats and mice by maternal treatment with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Int. Arch. Allergy Appl. Immunol.* 47(5):777-794.
- Vos, J.G. and J.H. Koeman. 1970. Comparative toxicologic study with polychlorinated biphenyls in chickens with special reference to porphyria, edema formation, liver necrosis, and tissue residues. *Toxicol. Appl. Pharmacol.* 17(3):656-668.
- Vos, J.G. and R.B. Beems. 1971. Dermal toxicity studies of technical polychlorinated biphenyls and fractions thereof in rabbits. *Toxicol. Appl. Pharmacol.* 19(4):617-633.
- Vos, J.G. and M.I. Luster. 1989. Immune alterations. In: *Halogenated Biphenyls, Terphenyls, Naphthalenes, Dibenzodioxins and Related Products*, R.D. Kimbrough and A.A. Jensen, Eds. Elsevier Science Publishers, Amsterdam. pp. 295-322.
- Vos, J.G. and L. Van Driel-Grootenhuys. 1972. PCB-induced suppression of the humoral and cell-mediated immunity in guinea pigs. *Sci. Total Environ.* 1:289-302.
- Vos, J.G., J.A. Moore and J.G. Zinkl. 1973. Effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin on the immune system of laboratory animals. *Environ. Health Perspect.* 5:149-162.
- Vos, J.G., J.A. Moore and J.G. Zinkl. 1974. Toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in C57B1/6 mice. *Toxicol. Appl. Pharmacol.* 29(2):229-241.
- Vos, J.G., J.G. Kreeftenberg, H.W. Engel, A. Minderhoud and L.M. Van Noorle Jansen. 1978. Studies on 2,3,7,8-tetrachlorodibenzo-p-dioxin induced immune suppression and decreased resistance to infection: endotoxin hypersensitivity, serum zinc concentrations and effect of thymosin treatment. *Toxicology.* 9(1-2):75-86.
- Vreugdenhil, H.J., F.M. Slijper, P.G. Mulder and N. Weisglas-Kuperus. 2002. Effects of perinatal exposure to PCBs and dioxins on play behavior in Dutch children at school age. *Environ. Health Perspect.* 110(10):A593-A598.
- Wacker, R., H. Poiger and C. Schlatter. 1986. Pharmacokinetics and metabolism of 1,2,3,7,8-pentachlorodibenzo-p-dioxin in the rat. *Chemosphere.* 15(9-12):1473-1476.
- Waern, F., S. Flodstrom, L. Busk, T. Kronevi, I. Nordgren and U.G. Ahlborg. 1991. Relative liver tumour promoting activity and toxicity of some polychlorinated dibenzo-p-dioxin- and dibenzofuran-congeners in female Sprague-Dawley rats. *Pharmacol. Toxicol.* 69(6):450-458.

- Waern, F., E. Manzoor, U.G. Ahlborg and H. Hakansson. 2008. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in the lactating rat on maternal and neonatal vitamin A status and hepatic enzyme induction: a dose-response study. *Chemosphere*. 23(11-12):1951-1956.
- Wahba, Z.Z., T.A. Lawson and S.J. Stohs. 1988. Induction of hepatic DNA single strand breaks in rats by 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Cancer Lett*. 39(3):281-286.
- Wahba, Z.Z., T.W. Lawson, W.J. Murray and S.J. Stohs. 1989a. Factors influencing the induction of DNA single strand breaks in rats by 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Toxicology*. 58(1):57-69.
- Wahba, Z.Z., W.J. Murray, M.Q. Hassan and S.J. Stohs. 1989b. Comparative effects of pair-feeding and 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on various biochemical parameters in female rats. *Toxicology*. 59(3):311-323.
- Wahba, Z.Z., W.J. Murray and S.J. Stohs. 1990a. Altered hepatic iron distribution and release in rats after exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Bull. Environ. Contam Toxicol*. 45(3):436-445.
- Wahba, Z.Z., W.J. Murray and S.J. Stohs. 1990b. Desferrioxamine-induced alterations in hepatic iron distribution, DNA damage and lipid peroxidation in control and 2,3,7,8-tetrachlorodibenzo-p-dioxin-treated rats. *J. Appl. Toxicol*. 10(2):119-124.
- Walden, R. and C.M. Schiller. 1985. Comparative toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in four (sub)strains of adult male rats. *Toxicol. Appl. Pharmacol*. 77(3):490-495.
- Walker, A.E. and J.V. Martin. 1979. Lipid profiles in dioxin-exposed workers. *Lancet*. 1(8113):446-447.
- Walker, M.K. and R.E. Peterson. 1991. Potencies of polychlorinated dibenzo-*p*-dioxin, dibenzofuran, and biphenyl congeners, relative to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin, for producing early life stage mortality in rainbow trout (*Oncorhynchus mykiss*). *Aquat. Toxicol*. 21(3-4):219-237.
- Walker, M.K., J.M. Spitsbergen, J.R. Olson and R.E. Peterson. 1991. 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin (TCDD) Toxicity during Early Life Stage Development of Lake Trout (*Salvelinus namaycush*). *Can. J. Fish. Aquat. Sci*. 48(5):875-883.
- Walker, M.K., L.C. Hufnagel, Jr., M.K. Clayton and R.E. Peterson. 1992. An egg injection method for assessing early life stage mortality of polychlorinated dibenzo-*p*-dioxins, dibenzofurans, and biphenyls in rainbow trout (*Oncorhynchus mykiss*). *Aquat. Toxicol*. 22(1):15-37.

- Walker, N.J., J.A. Gastel, L.T. Costa, G.C. Clark, G.W. Lucier and T.R. Sutter. 1995. Rat CYP1B1: an adrenal cytochrome P450 that exhibits sex-dependent expression in livers and kidneys of TCDD-treated animals. *Carcinogenesis*. 16(6):1319-1327.
- Walker, M.K., P.M. Cook, B.C. Butterworth, E.W. Zabel and R.E. Peterson. 1996. Potency of a complex mixture of polychlorinated dibenzo-p-dioxin, dibenzofuran, and biphenyl congeners compared to 2,3,7,8-tetrachlorodibenzo-p-dioxin in causing fish early life stage mortality. *Fundam. Appl. Toxicol.* 30(2):178-186.
- Walker, M.K., A. Tritscher, R.C. Sills and G.W. Lucier. 199a7. Hepatocarcinogenesis in a Sprague-Dawley rat initiation/promotion model following discontinuous exposure to TCDD. Dioxin '97: 17th International Symposium on chlorinated Dioxins and related compounds, Indianapolis, IN, USA. *Organohalogen Comp.* 34:150-153.
- Walker, M.K., R.S. Pollenz and S.M. Smith. 1997b. Expression of the aryl hydrocarbon receptor (AhR) and AhR nuclear translocator during chick cardiogenesis is consistent with 2,3,7,8-tetrachlorodibenzo-p-dioxin-induced heart defects. *Toxicol. Appl. Pharmacol.* 143(2):407-419.
- Walker, N.J., A. Kim, G. Lucier and A. Tritscher. 1998a. The use of tissue burden as a dose metric for TCDD-inducible responses in rat liver is end point-specific. *Organohalogen Comp.* 38:337-340.
- Walker, N.J., B.D. Miller, M.C. Kohn, G.W. Lucier and A.M. Tritscher. 1998b. Differences in kinetics of induction and reversibility of TCDD-induced changes in cell proliferation and CYP1A1 expression in female Sprague-Dawley rat liver. *Carcinogenesis*. 19(8):1427-1435.
- Walker, N.J., F.G. Crofts, Y. Li, S.F. Lax, C.L. Hayes, P.T. Strickland, G.W. Lucier and T.R. Sutter. 1998c. Induction and localization of cytochrome P450 1B1 (CYP1B1) protein in the livers of TCDD-treated rats: detection using polyclonal antibodies raised to histidine-tagged fusion proteins produced and purified from bacteria. *Carcinogenesis*. 19(3):395-402.
- Walker, N.J., C.J. Portier, S.F. Lax, F.G. Crofts, Y. Li, G.W. Lucier and T.R. Sutter. 1999. Characterization of the dose-response of CYP1B1, CYP1A1, and CYP1A2 in the liver of female Sprague-Dawley rats following chronic exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Appl. Pharmacol.* 154(3):279-286.
- Walker, N.J., A.M. Tritscher, R.C. Sills, G.W. Lucier and C.J. Portier. 2000. Hepatocarcinogenesis in female Sprague-Dawley rats following discontinuous treatment with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicol. Sci.* 54(2):330-337.
- Waller, C.L. and J.D. McKinney. 1995. Three-dimensional quantitative structure-activity relationships of dioxins and dioxin-like compounds: model validation and Ah receptor characterization. *Chem. Res. Toxicol.* 8(6):847-858.



- Walsh, A.A., K. Tullis, R.H. Rice and M.S. Denison. 1996. Identification of a novel cis-acting negative regulatory element affecting expression of the CYP1A1 gene in rat epidermal cells. *J. Biol. Chem.* 271(37):22746-22753.
- Wang, H.H. and B. MacMahon. 1979. Mortality of pesticide applicators. *J. Occup. Med.* 21(11):741-744.
- Wang, X., M. Santostefano, Y. Lu and S. Safe. 1992. A comparison of the mouse versus human aryl hydrocarbon (Ah) receptor complex: effects of proteolysis. *Chem. Biol. Interact.* 85(1):79-93.
- Wang, X., M.J. Santostefano, M.V. Evans, V.M. Richardson, J.J. Diliberto and L.S. Birnbaum. 1997. Determination of parameters responsible for pharmacokinetic behavior of TCDD in female Sprague-Dawley rats. *Toxicol. Appl. Pharmacol.* 147(1):151-168.
- Wang, X., M.J. Santostefano, M.J. DeVito and L.S. Birnbaum. 2000. Extrapolation of a PBPK model for dioxins across dosage regimen, gender, strain, and species. *Toxicol. Sci.* 56(1):49-60.
- Wanner, R., S. Brommer, B.M. Czarnetzki and T. Rosenbach. 1995. The differentiation-related upregulation of aryl hydrocarbon receptor transcript levels is suppressed by retinoic acid. *Biochem. Biophys. Res. Co.* 209(2):706-711.
- Wanner, R., A. Zober, K. Abraham, J. Kleffe, B.M. Henz and B. Wittig. 1999. Polymorphism at codon 554 of the human Ah receptor: different allelic frequencies in Caucasians and Japanese and no correlation with severity of TCDD induced chloracne in chemical workers. *Pharmacogenetics.* 9(6):777-780.
- Warner, M., B. Eskenazi, P. Mocarelli, P.M. Gerthoux, S. Samuels, L. Needham, D. Patterson and P. Brambilla. 2002. Serum dioxin concentrations and breast cancer risk in the Seveso Women's Health Study. *Environ. Health Perspect.* 110(7):625-628.
- Warren, D.W., G.C. Haltmeyer and K.B. Eik-Nes. 1975. The effect of gonadotrophins on the fetal and neonatal rat testis. *Endocrinology.* 96(5):1226-1229.
- Warren, D.W., I.T. Huhtaniemi, J. Tapanainen, M.L. Dufau and K.J. Catt. 1984. Ontogeny of gonadotropin receptors in the fetal and neonatal rat testis. *Endocrinology.* 114(2):470-476.
- Wassom, J.S., J.E. Huff and N. Loprieno. 1977. A review of the genetic toxicology of chlorinated dibenzo-p-dioxins. *Mutat. Res.* 47(3-4):141-160.
- Watanabe, K.K. and H.K. Kang. 1995. Military service in Vietnam and the risk of death from trauma and selected cancers. *Ann. Epidemiol.* 5(5):407-412.

- Watson, A.J. and O. Hankinson. 1988. DNA transfection of a gene repressing aryl hydrocarbon hydroxylase induction. *Carcinogenesis*. 9(9):1581-1586.
- Watson, A.J., K.I. Weir-Brown, R.M. Bannister, F.F. Chu, S. Reisz-Porszasz, Y. Fujii-Kuriyama, K. Sogawa and O. Hankinson. 1992. Mechanism of action of a repressor of dioxin-dependent induction of Cyp1a1 gene transcription. *Mol. Cell Biol.* 12(5):2115-2123.
- Wattenberg, L.W. 1978. Inhibition of chemical carcinogenesis. *J. Natl. Cancer Inst.* 60(1):11-18.
- Wattenberg, L.W. 1985. Chemoprevention of cancer. *Cancer Res.* 45(1):1-8.
- Wattenberg, L.W. and J.L. Leong. 1970. Inhibition of the carcinogenic action of benzo(a)pyrene by flavones. *Cancer Res.* 30(7):1922-1925.
- Wattenberg, L.W. and W.D. Loub. 1978. Inhibition of polycyclic aromatic hydrocarbon-induced neoplasia by naturally occurring indoles. *Cancer Res.* 38(5):1410-1413.
- Webb, K.B., R.G. Evans, A.P. Knutsen, S.T. Roodman, D.W. Roberts, W.F. Schramm, B.B. Gibson, J.S. Andrews, Jr., L.L. Needham and D.G. Patterson. 1989. Medical evaluation of subjects with known body levels of 2,3,7,8-tetrachlorodibenzo-p-dioxin. *J. Toxicol. Environ. Health.* 28(2):183-193.
- Weber, H. and L.S. Birnbaum. 1985. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) and 2,3,7,8-tetrachlorodibenzofuran (TCDF) in pregnant C57BL/6N mice: distribution to the embryo and excretion. *Arch. Toxicol.* 57(3):159-162.
- Weber, H., H. Poiger and C. Schlatter. 1982a. Acute oral toxicity of TCDD-metabolites in male guinea pigs. *Toxicol. Lett.* 14(1-2):117-122.
- Weber, H., H. Poiger and C. Schlatter. 1982b. Fate of 2,3,7,8-tetrachlorodibenzo-p-dioxin metabolites from dogs in rats. *Xenobiotica.* 12(6):353-357.
- Weber, H., J.C. Lamb, M.W. Harris and J.A. Moore. 1984. Teratogenicity of 2,3,7,8-tetrachlorodibenzofuran (TCDF) in mice. *Toxicol. Lett.* 20(2):183-188.
- Weber, H., M.W. Harris, J.K. Haseman and L.S. Birnbaum. 1985. Teratogenic potency of TCDD, TCDF and TCDD-TCDF combinations in C57BL/6N mice. *Toxicol. Lett.* 26(2-3):159-167.
- Weber, L.W. and H. Greim. 1997. The toxicity of brominated and mixed-halogenated dibenzo-p-dioxins and dibenzofurans: an overview. *J. Toxicol. Environ. Health.* 50(3):195-215.

Weber, L.W., A. Zesch and K. Rozman. 1991a. Penetration, distribution and kinetics of 2,3,7,8-tetrachlorodibenzo-p-dioxin in human skin in vitro. *Arch. Toxicol.* 65(5):421-428.

Weber, L.W., M. Lebofsky, B.U. Stahl, J.R. Gorski, G. Muzi and K. Rozman. 1991b. Reduced activities of key enzymes of gluconeogenesis as possible cause of acute toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in rats. *Toxicology.* 66(2):133-144.

Weber, L.W., M. Lebofsky, B.U. Stahl, A. Kettrup and K. Rozman. 1992a. Comparative toxicity of four chlorinated dibenzo-p-dioxins (CDDs) and their mixture. Part II: Structure-activity relationships with inhibition of hepatic phosphoenolpyruvate carboxykinase, pyruvate carboxylase, and gamma-glutamyl transpeptidase activities. *Arch. Toxicol.* 66(7):478-483.

Weber, L.W., M. Lebofsky, B.U. Stahl, A. Kettrup and K. Rozman. 1992b. Comparative toxicity of four chlorinated dibenzo-p-dioxins (CDDs) and their mixture. Part III: Structure-activity relationship with increased plasma tryptophan levels, but no relationship to hepatic ethoxyresorufin o-deethylase activity. *Arch. Toxicol.* 66(7):484-488.

Weber, L.W., C.D. Palmer and K. Rozman. 1994. Reduced activity of tryptophan 2,3-dioxygenase in the liver of rats treated with chlorinated dibenzo-p-dioxins (CDDs): dose-responses and structure-activity relationship. *Toxicology.* 86(1-2):63-69.

Weber, L.W., M. Lebofsky, B.U. Stahl, S. Smith and K.K. Rozman. 1995. Correlation between toxicity and effects on intermediary metabolism in 2,3,7,8-tetrachlorodibenzo-p-dioxin-treated male C57BL/6J and DBA/2J mice. *Toxicol. Appl. Pharmacol.* 131(1):155-162.

Wehler, E.K., A. Bergman, I. Brandt, P.O. Darnerud and C.A. Wachtmeister. 1989. 3,3',4,4'-Tetrachlorobiphenyl. Excretion and tissue retention of hydroxylated metabolites in the mouse. *Drug Metab Dispos.* 17(4):441-448.

Weinand-Haerer, A., H. Lilienthal, K.A. Bucholski and G. Winneke. 1997. Behavioral effects of maternal exposure to an ortho-chlorinated or a coplanar PCB congener in rats. *Environ. Toxicol. Pharmacol.* 3(2):97-103.

Weinberg, R.A. 1995. The retinoblastoma protein and cell cycle control. *Cell.* 81(3):323-330.

Weisglas-Kuperus, N., T.C. Sas, C. Koopman-Esseboom, C.W. van der Zwan, M.A. De Ridder, A. Beishuizen, H. Hooijkaas and P.J. Sauer. 1995. Immunologic effects of background prenatal and postnatal exposure to dioxins and polychlorinated biphenyls in Dutch infants. *Pediatr. Res.* 38(3):404-410.

- Weisglas-Kuperus, N., S. Patandin, G.A. Berbers, T.C. Sas, P.G. Mulder, P.J. Sauer and H. Hooijkaas. 2000. Immunologic effects of background exposure to polychlorinated biphenyls and dioxins in Dutch preschool children. *Environ. Health Perspect.* 108(12):1203-1207.
- Weisiger, R., J. Gollan and R. Ockner. 1981. Receptor for albumin on the liver cell surface may mediate uptake of fatty acids and other albumin-bound substances. *Science.* 211(4486):1048-1051.
- Weiss, C., S.K. Kolluri, F. Kiefer and M. Gottlicher. 1996. Complementation of Ah receptor deficiency in hepatoma cells: negative feedback regulation and cell cycle control by the Ah receptor. *Exp. Cell Res.* 226(1):154-163.
- Weissberg, J.B. and J.G. Zinkl. 1973. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin upon hemostasis and hematologic function in the rat. *Environ. Health Perspect.* 5:119-123.
- Wendling, J.M., R.G. Orth and H. Poiger. 1990. Determination of [3H]-2,3,7,8-tetrachlorodibenzo-p-dioxin in human feces to ascertain its relative metabolism in man. *Anal. Chem.* 62(8):796-800.
- Wester, R.C., H.I. Maibach, L. Sedik, J. Melendres and M. Wade. 1993a. Percutaneous absorption of PCBs from soil: in vivo rhesus monkey, in vitro human skin, and binding to powdered human stratum corneum. *J. Toxicol. Environ. Health.* 39(3):375-382.
- Wester, R.C., H.I. Maibach, L. Sedik, J. Melendres, M. Wade and S. DiZio. 1993b. Percutaneous absorption of pentachlorophenol from soil. *Fundam. Appl. Toxicol.* 20(1):68-71.
- Whalen, R.E. and K.L. Olsen. 1981. Role of aromatization in sexual differentiation: effects of prenatal ATD treatment and neonatal castration. *Horm. Behav.* 15(2):107-122.
- Wheatley, D.N. 1968. Enhancement and inhibition of the induction by 7,12-dimethylbenz(a)anthracene of mammary tumours in female Sprague-Dawley rats. *Br. J. Cancer.* 22(4):787-797.
- White, K.L., Jr., H.H. Lysy, J.A. McCay and A.C. Anderson. 1986. Modulation of serum complement levels following exposure to polychlorinated dibenzo-p-dioxins. *Toxicol. Appl. Pharmacol.* 84(2):209-219.
- Whitelaw, M., I. Pongratz, A. Wilhelmsson, J.A. Gustafsson and L. Poellinger. 1993. Ligand-dependent recruitment of the Arnt coregulator determines DNA recognition by the dioxin receptor. *Mol. Cell Biol.* 13(4):2504-2514.

Whitelaw, M.L., M. Gottlicher, J.A. Gustafsson and L. Poellinger. 1993. Definition of a novel ligand binding domain of a nuclear bHLH receptor: co-localization of ligand and hsp90 binding activities within the regulable inactivation domain of the dioxin receptor. *EMBO J.* 12(11):4169-4179.

Whitelaw, M.L., J. McGuire, D. Picard, J.A. Gustafsson and L. Poellinger. 1995. Heat shock protein hsp90 regulates dioxin receptor function in vivo. *Proc. Natl. Acad. Sci. U. S. A.* 92(10):4437-4441.

Whitlock, J.P., Jr. 1990. Genetic and molecular aspects of 2,3,7,8-tetrachlorodibenzo-p-dioxin action. *Annu. Rev. Pharmacol. Toxicol.* 30:251-277.

Whitlock, J.P., Jr. 1999. Induction of cytochrome P4501A1. *Annu. Rev. Pharmacol. Toxicol.* 39:103-125.

Whitlock, J.P., Jr., S.T. Okino, L. Dong, H.P. Ko, R. Clarke-Katzenberg, Q. Ma and H. Li. 1996. Cytochromes P450 5: induction of cytochrome P4501A1: a model for analyzing mammalian gene transcription. *FASEB J.* 10(8):809-818.

Whitsett, J.M., L.E. Gray and G.M. Bediz. 1978. Differential influence of stereoisomers of estradiol on sexual behavior of female hamsters. *J. Comp Physiol Psychol.* 92(1):7-12.

WHO (World Health Organization). 1977. Manual of the international statistical classification of diseases, injuries and causes of death. World Health Organization, Ninth revision, Geneva.

WHO (World Health Organization). 1998. Executive summary, assessment of health risk of dioxins: Re-evaluation of the Tolerable Daily Intake (TDI). In: WHO Consultation.

WHO (World Health Organization). 2000a. Assessment of the health risk of dioxins: re-valuation of the tolerable daily intake (TDI). In: Food Additives and Contaminants, 17(4) ed., F.X.R. van Leeuwen and M.M. Younes, Eds. Taylor and Francis, London, UK.

WHO (World Health Organization). 2000b. International Programme on Chemical Safety: harmonization of approaches to the assessment of chemicals. Fact Sheet No. 8.

WHO/IPCS (World Health Organization/International Programme on Chemical Safety). 1989. Polychlorinated dibenzo-p-dioxins and dibenzofurans. World Health Organization, Lyon, France. Available at <http://www.inchem.org/documents/ehc/ehc88.htm>.

- Wiebel, F.J., U. Klose and F. Kiefer. 1991. Toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin in vitro: H4IIEC3-derived 5L hepatoma cells as a model system. *Toxicol. Lett.* 55(2):161-169.
- Wiklund, K. and L.E. Holm. 1986. Soft tissue sarcoma risk in Swedish agricultural and forestry workers. *J. Natl. Cancer Inst.* 76(2):229-234.
- Wiklund, K., J. Dich and L.E. Holm. 1987. Risk of malignant lymphoma in Swedish pesticide applicators. *Br. J. Cancer.* 56(4):505-508.
- Wiklund, K., J. Dich and L.E. Holm. 1988. Soft tissue sarcoma risk in Swedish licensed pesticide applicators. *J. Occup. Med.* 30(10):801-804.
- Wiklund, K., J. Dich, L.E. Holm and G. Eklund. 1989. Risk of cancer in pesticide applicators in Swedish agriculture. *Br. J. Ind. Med.* 46(11):809-814.
- Wilcox, A.J., C.R. Weinberg, J.F. O'Connor, D.D. Baird, J.P. Schlatterer, R.E. Canfield, E.G. Armstrong and B.C. Nisula. 1988. Incidence of early loss of pregnancy. *N. Engl. J. Med.* 319(4):189-194.
- Wilker, C., L. Johnson and S. Safe. 1996. Effects of developmental exposure to indole-3-carbinol or 2,3,7,8-tetrachlorodibenzo-p-dioxin on reproductive potential of male rat offspring. *Toxicol. Appl. Pharmacol.* 141(1):68-75.
- Williams, C.E., R.B. Crawford, M.P. Holsapple and N.E. Kaminski. 1996. Identification of functional aryl hydrocarbon receptor and aryl hydrocarbon receptor nuclear translocator in murine splenocytes. *Biochem. Pharmacol.* 52(5):771-780.
- Williams, D.T., H.M. Cunningham and B.J. Blanchfield. 1972. Distribution and excretion studies of octachlorodibenzo-p-dioxin in the rat. *Bull. Environ. Contam Toxicol.* 7(1):57-62.
- Williams, G.M. 1989. The significance of chemically-induced hepatocellular altered foci in rat liver and application to carcinogen detection. *Toxicol. Pathol.* 17(4 Pt 1):663-672.
- Williams, J.M. and C.W. Daniel. 1983. Mammary ductal elongation: differentiation of myoepithelium and basal lamina during branching morphogenesis. *Dev. Biol.* 97(2):274-290.
- Wilson, C.L. and S. Safe. 1998. Mechanisms of ligand-induced aryl hydrocarbon receptor-mediated biochemical and toxic responses. *Toxicol. Pathol.* 26(5):657-671.
- Wilson, G.L. and S.P. LeDoux. 1989. The role of chemicals in the etiology of diabetes mellitus. *Toxicol. Pathol.* 17(2):357-363.
- Wilson, J.D., F.W. George and J.E. Griffin. 1981. The hormonal control of sexual development. *Science.* 211(4488):1278-1284.

- Wilson, V.S., J.B. McLachlan, J.G. Falls and G.A. LeBlanc. 1999. Alteration in sexually dimorphic testosterone biotransformation profiles as a biomarker of chemically induced androgen disruption in mice. *Environ. Health Perspect.* 107(5):377-384.
- Wingren, G., M. Fredrikson, H.N. Brage, B. Nordenskjold and O. Axelson. 1990. Soft tissue sarcoma and occupational exposures. *Cancer.* 66(4):806-811.
- Wingren, G., B. Persson, K. Thoren and O. Axelson. 1991. Mortality pattern among pulp and paper mill workers in Sweden: a case-referent study. *Am. J. Ind. Med.* 20(6):769-774.
- Winters, D.L., S. Anderson, M. Lorber, J. Ferrario and C. Byrne. 1998. Trends in dioxin and PCB concentrations in meat samples from several decades of the 20th century. *Organohalogen Comp.* 38:75-78.
- Wisk, J.D. and K.R. Cooper. 1990a. Comparison of the toxicity of several polychlorinated dibenzo-*p*-dioxins and 2,3,7,8-tetrachlorodibenzofuran in embryos of the Japanese medaka (*Oryzias latipes*). *Chemosphere.* 20(3-4):361-377.
- Wisk, J.D. and K.R. Cooper. 1990b. The stage specific toxicity of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin in embryos of the Japanese Medaka (*Oryzias latipes*). *Environ. Toxicol. Chem.* 9(9):1159-1169.
- Wolf, C.J., J.S. Ostby and L.E. Gray, Jr. 1999. Gestational exposure to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD) severely alters reproductive function of female hamster offspring. *Toxicol. Sci.* 51(2):259-264.
- Wolfe, W.H., J.E. Michalek, J.C. Miner and M.R. Peterson. 1988. Serum 2,3,7,8-tetrachlorodibenzo-*p*-dioxin levels in Air Force Health Study personnel. *MMWR Morb. Mortal. Wkly. Rep.* 37:309-311.
- Wolfe, W.H., J.E. Michalek, J.C. Miner, A. Rahe, J. Silva, W.F. Thomas, W.D. Grubbs, M.B. Lustik, T.G. Karrison and R.H. Roegner. 1990. Health status of Air Force veterans occupationally exposed to herbicides in Vietnam. I. Physical health. *JAMA.* 264(14):1824-1831.
- Wolfe, W.H., J.E. Michalek and J.C. Miner. 1992a. Diabetes versus dioxin body burden in veterans of Operation Ranch Hand. In: 12th International Symposium on Dioxins and Related Compounds, Tampere, Finland.
- Wolfe, W.H., J.E. Michalek, J.C. Miner and A.J. Rahe. 1992b. Air Force Health Study. An epidemiologic investigation of health effects in Air Force personnel following exposure to herbicides. Reproductive outcomes. Epidemiology Research Division, Armstrong Laboratory, Human Systems Division (AFSC), Brooks Air Force Base, TX.

Wolfe, W.H., J.E. Michalek, J.C. Miner, R.H. Roegner, W.D. Grubbs, M.B. Lustik, A.S. Brockman, S.C. Henderson and D.E. Williams. 1992c. The air force health study : an epidemiologic investigation of health effects in air force personnel following exposure to herbicides, serum dioxin analysis of 1987 examination results. *Chemosphere*. 25(1-2):213-216.

Wolfe, W.H., J.E. Michalek and J.C. Miner. 1994a. An epidemiologic investigation of health effects in Air Force personnel following exposure to herbicides, mortality update-1994. U.S. Air Force, Armstrong Laboratory, Brooks Air Force Base, TX. AL/AO-TR-1994-0128.

Wolfe, W.H., J.E. Michalek, J.C. Miner, J.L. Pirkle, S.P. Caudill, D.G. Patterson, Jr. and L.L. Needham. 1994b. Determinants of TCDD half-life in veterans of operation ranch hand. *J. Toxicol. Environ. Health*. 41(4):481-488.

Wolfe, W.H., J.E. Michalek, J.C. Miner, A.J. Rahe, C.A. Moore, L.L. Needham and D.G. Patterson, Jr. 1995. Paternal serum dioxin and reproductive outcomes among veterans of Operation Ranch Hand. *Epidemiology*. 6(1):17-22.

Wong, K.C. and Hwang M.Y. 1981. Children born to PCB poisoned mothers. *Clin. Med. (Taipei) Chinese*. 7:83-87.

Wong, P.W. and I.N. Pessah. 1997. Noncoplanar PCB 95 alters microsomal calcium transport by an immunophilin FKBP12-dependent mechanism. *Mol. Pharmacol*. 51(5):693-702.

Wong, T.K., B.A. Domin, P.E. Bent, T.E. Blanton, M.W. Anderson and R.M. Philpot. 1986. Correlation of placental microsomal activities with protein detected by antibodies to rabbit cytochrome P-450 isozyme 6 in preparations from humans exposed to polychlorinated biphenyls, quaterphenyls, and dibenzofurans. *Cancer Res*. 46(2):999-1004.

Wood, S.C. and M.P. Holsapple. 1993. Direct suppression of superantigen-induced IgM secretion in human lymphocytes by 2,3,7,8-TCDD. *Toxicol. Appl. Pharmacol*. 122(2):308-313.

Wood, S.C., J.G. Karras and M.P. Holsapple. 1992. Integration of the human lymphocyte into immunotoxicological investigations. *Fundam. Appl. Toxicol*. 18(3):450-459.

Wood, S.C., H.G. Jeong, D.L. Morris and M.P. Holsapple. 1993. Direct effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on human tonsillar lymphocytes. *Toxicology*. 81(2):131-143.

Woods, J.S. and L. Polissar. 1989. Non-Hodgkin's lymphoma among phenoxy herbicide-exposed farm workers in western Washington state. *Chemosphere*. 18(1-6):401-406.



- Woods, J.S., L. Polissar, R.K. Severson, L.S. Heuser and B.G. Kulander. 1987. Soft tissue sarcoma and non-Hodgkin's lymphoma in relation to phenoxyherbicide and chlorinated phenol exposure in western Washington. *J. Natl. Cancer Inst.* 78(5):899-910.
- Working, P.K. 1988. Male reproductive toxicology: comparison of the human to animal models. *Environ. Health Perspect.* 77:37-44.
- Working, P.K. and M.E. Hurtt. 1987. Computerized videomicrographic analysis of rat sperm motility. *J. Androl.* 8(5):330-337.
- Worner, W. and D. Schrenk. 1996. Influence of liver tumor promoters on apoptosis in rat hepatocytes induced by 2-acetylaminofluorene, ultraviolet light, or transforming growth factor beta 1. *Cancer Res.* 56(6):1272-1278.
- Wroblewski, V.J. and J.R. Olson. 1985. Hepatic metabolism of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in the rat and guinea pig. *Toxicol. Appl. Pharmacol.* 81(2):231-240.
- Wroblewski, V.J. and J.R. Olson. 1988. Effect of monooxygenase inducers and inhibitors on the hepatic metabolism of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the rat and hamster. *Drug Metab Dispos.* 16(1):43-51.
- Wu, L. and J.P. Whitlock, Jr. 1992. Mechanism of dioxin action: Ah receptor-mediated increase in promoter accessibility in vivo. *Proc. Natl. Acad. Sci. U. S. A.* 89(11):4811-4815.
- Wu, L. and J.P. Whitlock, Jr. 1993. Mechanism of dioxin action: receptor-enhancer interactions in intact cells. *Nucleic Acids Res.* 21(1):119-125.
- Wu, Y.C., R.P. Hsieh and Y.C. Lu. 1984. Altered distribution of lymphocyte subpopulations and augmentation of lymphocyte proliferation in chronic PCB poisoned patients. *Zhonghua Min Guo Wei Sheng Wu Ji Mian Yi Xue Za Zhi.* 17(4):177-187.
- Wyde, M.E., G.W. Lucier and N.J. Walker. 1999. Influence of ovariectomy and 17  $\beta$ -estradiol on the promotion of altered hepatocellular foci by TCDD. *Dioxin '99: 19th International Symposium on Halogenated Environmental Organic Pollutants and POPs.* Venice, Italy. *Organohalogen Comp.* 42:501-504.
- Xu, L.C. and E. Bresnick. 1990. Induction of cytochrome P450IA1 in rat hepatoma cell by polycyclic hydrocarbons and a dioxin. *Biochem. Pharmacol.* 40(6):1399-1403.
- Xu, L., T.S. Ruh and M.F. Ruh. 1997. Effect of the histone deacetylase inhibitor trichostatin A on the responsiveness of rat hepatocytes to dioxin. *Biochem. Pharmacol.* 53(7):951-957.
- Yager, J.D. and J.G. Liehr. 1996. Molecular mechanisms of estrogen carcinogenesis. *Annu. Rev. Pharmacol. Toxicol.* 36:203-232.

Yamaguchi, A., T. Yoshimura and M. Kuratsune. 1971. A survey on pregnant women having consumed rice oil contaminated with chlorobiphenyls and their babies. *Fukuoka Igaku Zasshi*. 62:117-121.

Yamashita, F. and M. Hayashi. 1985. Fetal PCB syndrome: clinical features, intrauterine growth retardation and possible alteration in calcium metabolism. *Environ. Health Perspect.* 59:41-45.

Yang, J.H., P. Thraves, A. Dritschilo and J.S. Rhim. 1992. Neoplastic transformation of immortalized human keratinocytes by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Cancer Res.* 52(12):3478-3482.

Yang, J.H., C. Vogel and J. Abel. 1999. A malignant transformation of human cells by 2,3,7,8-tetrachlorodibenzo-p-dioxin exhibits altered expressions of growth regulatory factors. *Carcinogenesis.* 20(1):13-18.

Yang, J.Z. and W.G. Foster. 1997. Continuous exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin inhibits the growth of surgically induced endometriosis in the ovariectomized mouse treated with high dose estradiol. *Toxicol. Ind. Health.* 13(1):15-25.

Yang, J.Z., S.K. Agarwal and W.G. Foster. 2000. Subchronic exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin modulates the pathophysiology of endometriosis in the cynomolgus monkey. *Toxicol. Sci.* 56(2):374-381.

Yang, K.H., W.A. Croft and R.E. Peterson. 1977. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on plasma disappearance and biliary excretion of foreign compounds in rats. *Toxicol. Appl. Pharmacol.* 40(3):485-496.

Yang, K.H., B.S. Yoo and S.Y. Choe. 1983a. Effects of halogenated dibenzo-p-dioxins on plasma disappearance and biliary excretion of ouabain in rats. *Toxicol. Lett.* 15(2-3):259-264.

Yang, K.H., E.J. Choi and S.Y. Choe. 1983b. Cytotoxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin on primary cultures of adult rat hepatocytes. *Arch. Environ. Contam. Toxicol.* 12(2):183-188.

Yang, Y.G., H. Lebrech and G.R. Burleson. 1994. Effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on pulmonary influenza virus titer and natural killer (NK) activity in rats. *Fundam. Appl. Toxicol.* 23(1):125-131.

Yao, E.F. and M.S. Denison. 1992. DNA sequence determinants for binding of transformed Ah receptor to a dioxin-responsive enhancer. *Biochemistry.* 31(21):5060-5067.

Yasuda, M., K.A. Matsui, T.N. Takagi et al. 1999. Palatal ruga anomalies induced by dioxins in mice. *Organohalogen Comp.*

Yen, Y.Y., S.J. Lan, Y.C. Ko and C.J. Chen. 1989. Follow-up study of reproductive hazards of multiparous women consuming PCBs-contaminated rice oil in Taiwan. *Bull. Environ. Contam Toxicol.* 43(5):647-655.

Yoon, J.W., C.J. Kim, C.Y. Pak and R.G. McArthur. 1987. Effects of environmental factors on the development of insulin-dependent diabetes mellitus. *Clin. Invest Med.* 10(5):457-469.

Yoshimura, H., Y. Yonemoto, H. Yamada, N. Koga, K. Oguri and S. Saeki. 1987. Metabolism in vivo of 3,4,3',4'-tetrachlorobiphenyl and toxicological assessment of the metabolites in rats. *Xenobiotica.* 17(8):897-910.

Yrjänheikki, E.J. 1992. Review of the models for TEFs in assessing health risks of PCDDs and PCDFs. *Toxic Sub. J.* 12:283-288.

Yu, M.L., C.C. Hsu, B.C. Gladen and W.J. Rogan. 1991. In utero PCB/PCDF exposure: relation of developmental delay to dysmorphology and dose. *Neurotoxicol. Teratol.* 13(2):195-202.

Yu, M.L., C.C. Hsu, Y.L. Guo, T.J. Lai, S.J. Chen and J.M. Luo. 1994. Disordered behavior in the early-born Taiwan Yucheng children. *Chemosphere.* 29(9-11):2413-2422.

Yu, M.L., Y.L. Guo, C.C. Hsu and W.J. Rogan. 1997. Increased mortality from chronic liver disease and cirrhosis 13 years after the Taiwan "yucheng" ("oil disease") incident. *Am. J. Ind. Med.* 31(2):172-175.

Yu, M.L., J.W. Hsin, C.C. Hsu, W.C. Chan and Y.L. Guo. 1998. The immunologic evaluation of the Yucheng children. *Chemosphere.* 37(9-12):1855-1865.

Yu, M.L., Y.L. Guo, C.C. Hsu and W.J. Rogan. 2000. Menstruation and reproduction in women with polychlorinated biphenyl (PCB) poisoning: long-term follow-up interviews of the women from the Taiwan Yucheng cohort. *Int. J. Epidemiol.* 29(4):672-677.

Zabel, E.W., M.K. Walker, M.W. Hornung, M.K. Clayton and R.E. Peterson. 1995. Interactions of polychlorinated dibenzo-p-dioxin, dibenzofuran, and biphenyl congeners for producing rainbow trout early life stage mortality. *Toxicol. Appl. Pharmacol.* 134(2):204-213.

Zacharewski, T., M. Harris, S. Safe, H. Thoma and O. Hutzinger. 1988. Applications of the in vitro aryl hydrocarbon hydroxylase induction assay for determining "2,3,7,8-tetrachlorodibenzo-p-dioxin equivalents": pyrolyzed brominated flame retardants. *Toxicology.* 51(2-3):177-189.

Zacharewski, T., M. Harris and S. Safe. 1991. Evidence for the mechanism of action of the 2,3,7,8-tetrachlorodibenzo-p-dioxin-mediated decrease of nuclear estrogen receptor levels in wild-type and mutant mouse Hepa 1c1c7 cells. *Biochem. Pharmacol.* 41(12):1931-1939.

- Zacharewski, T., M. Harris, L. Biegel, V. Morrison, M. Merchant and S. Safe. 1992. 6-Methyl-1,3,8-trichlorodibenzofuran (MCDF) as an antiestrogen in human and rodent cancer cell lines: evidence for the role of the Ah receptor. *Toxicol. Appl. Pharmacol.* 113(2):311-318.
- Zack, J.A. and R.R. Suskind. 1980. The mortality experience of workers exposed to tetrachlorodibenzodioxin in a trichlorophenol process accident. *J. Occup. Med.* 22(1):11-14.
- Zacksenhaus, E., Z. Jiang, D. Chung, J.D. Marth, R.A. Phillips and B.L. Gallie. 1996. pRb controls proliferation, differentiation, and death of skeletal muscle cells and other lineages during embryogenesis. *Genes Dev.* 10(23):3051-3064.
- Zaher, H., P.M. Fernandez-Salguero, J. Letterio, M.S. Sheikh, A.J. Fornace, Jr., A.B. Roberts and F.J. Gonzalez. 1998. The involvement of aryl hydrocarbon receptor in the activation of transforming growth factor-beta and apoptosis. *Mol. Pharmacol.* 54(2):313-321.
- Zahm, S.H. and A. Blair. 1992. Pesticides and non-Hodgkin's lymphoma. *Cancer Res.* 52(19 Suppl):5485s-5488s.
- Zahm, S.H., D.D. Weisenburger, P.A. Babbitt, R.C. Saal, J.B. Vaught, K.P. Cantor and A. Blair. 1990. A case-control study of non-Hodgkin's lymphoma and the herbicide 2,4-dichlorophenoxyacetic acid (2,4-D) in eastern Nebraska. *Epidemiology.* 1(5):349-356.
- Zareba, G., R. Hojo, K.M. Zareba, C. Watanabe, V.P. Markowski, R.B. Baggs and B. Weiss. 2002. Sexually dimorphic alterations of brain cortical dominance in rats prenatally exposed to TCDD. *J. Appl. Toxicol.* 22(2):129-137.
- Zeise, L., J.E. Huff, A.G. Salmon and N.K. Hooper. 1990a. Human risks from 2,3,7,8-tetrachlorodibenzo-p-dioxin and hexachlorodibenzo-p-dioxins. In: *Environmental and occupational cancer: scientific update, 1990*, 17, M.A. Mehlman, Ed. Princeton Scientific, Princeton, NJ. pp. 293-342.
- Zeise, L., J.E. Huff, A.G. Salmon and N.K. Hooper. 1990b. Overview of human risk from environmental exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin and hexachlorodibenzo-p-dioxins. In: *Advances in Modern Environmental Toxicology*, 17. Princeton Scientific Publishing Co., Inc., Princeton, NJ. pp. 293-342.
- Zhang, L., U. Savas, D.L. Alexander and C.R. Jefcoate. 1998. Characterization of the mouse Cyp1B1 gene. Identification of an enhancer region that directs aryl hydrocarbon receptor-mediated constitutive and induced expression. *J. Biol. Chem.* 273(9):5174-5183.

Zhao, F., K. Mayura, N. Kocurek, J.F. Edwards, L.F. Kubena, S.H. Safe and T.D. Phillips. 1997. Inhibition of 3,3',4,4',5-pentachlorobiphenyl-induced chicken embryotoxicity by 2,2',4,4',5,5'-hexachlorobiphenyl. *Fundam. Appl. Toxicol.* 35(1):1-8.

Zingeser, M.R. 1979. Anomalous development of the soft palate in rhesus macaques (*Macaca mulatta*) prenatally exposed to 3,4,7,8-tetrachlorodibenzo-*p*-dioxin. *Teratology.* 19:54A.

Zinkl, J.G., J.G. Vos, J.A. Moore and B.N. Gupta. 1973. Hematologic and clinical chemistry effects of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin in laboratory animals. *Environ. Health Perspect.* 5:111-118.

Zirkin, B.R., R. Santulli, C.A. Awoniyi and L.L. Ewing. 1989. Maintenance of advanced spermatogenic cells in the adult rat testis: quantitative relationship to testosterone concentration within the testis. *Endocrinology.* 124(6):3043-3049.

Zober, A., M.G. Ott and P. Messerer. 1994. Morbidity follow up study of BASF employees exposed to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD) after a 1953 chemical reactor incident. *Occup. Environ. Med.* 51(7):479-486.

Zober, A., P. Messerer and P. Huber. 1990. Thirty-four-year mortality follow-up of BASF employees exposed to 2,3,7,8-TCDD after the 1953 accident. *Int. Arch. Occup. Environ. Health.* 62(2):139-157.

Zober, M.A., M.G. Ott, O. Papke, K. Senft and C. Germann. 1992. Morbidity study of extruder personnel with potential exposure to brominated dioxins and furans. I. Results of blood monitoring and immunological tests. *Br. J. Ind. Med.* 49(8):532-544.