

参考文献

- Adami H, Lipworth L, Titus-Ernstoff L, Hsieh C, Hanberg A, Ahlborg U, Baron J & Trichopoulos D (1995) Organochlorine compounds and estrogen-related cancers in women. *Cancer Causes Control*, 6:551-566.
- Adami H, Bergstrom R, Mohmer M, Zatonski W, Storm H, Ekbohm A, Tretli S, Teppo L, Ziegler H, Rahu M, Guerevicius R & Stengrevics A (1994) Testicular cancer in nine Northern European countries. *Int J Cancer*, 59:33-38.
- Adamopoulos DA, Pappa A, Nicopoulou S, Andreou E, Karametzanis M, Mievhopoulos J, Deglianni V & Simon M (1996) Seminal volume and total sperm number trends in men attending subfertility clinics in the greater Athens area during the period 1977-1993. *Hum Reprod*, 11:1936-1941.
- Adams SM, Crumby WD, Greely MS, Shugart LR & Saylor CF (1992) Responses of fish populations and communities to pulp mill effluents: A holistic approach. *Ecotoxicol Environ Saf*, 24:347-360.
- Adamson RH, Hart MM & Reagan R (1973) The effects of isomers of DDD on the ACTH-induced steroid output, histology and ultrastructure of the dog adrenal cortex. *Toxicol Appl Pharmacol*, 24:101-113.
- Addison RF & Zinck ME (1986) PCBs have declined more than DDT-group residues in Arctic ringed seals (*Phoca hispida*) between 1972 and 1981. *Environ Sci Technol*, 20:253-256.
- Adkins EK (1979) Effect of embryonic treatment with estradiol or testosterone on sexual differentiation of the quail brain: Critical period and dose-response relationships. *Neuroendocrinol*, 29:178-185.
- Adkins-Regan E, Mansukhani V, Seiwert C & Thompson R (1994) Sexual differentiation of brain and behavior in the Zebra Finch: Critical periods for effects of early estrogen treatment. *J Neurobiol*, 25:865-877.
- Adler JH & Grebenok RJ (1995) Biosynthesis and distribution of insect-molting hormones in plants: A review. *Lipids*, 30:257-262.
- Adler M & Ziglio E (1996) *Gazing into the Oracle*. London, UK: Jessica Kingsley Publishers.
- Adlerkruetz H (1988) Lignans and phytoestrogens: Possible preventative role in cancer. *Front Gastrointest Res*, 14:165-176.
- Adlercreutz H & Mazur W (1997) Phyto-oestrogens and Western diseases. *Ann Med*, 29(2):95-120.
- Aldrich T & Griffith J (1993) *Environmental Epidemiology and Risk Assessment*. New York: Van Nostrand Reinhold.
- Aguilar A & Borell A (1994) Abnormally high polychlorinated biphenyl levels in striped dolphins (*Stella coeruleoalba*) affected by the 1990-1992 Mediterranean epizootic. *Sci Total Environ*, 154:237-247.
- Ahel M, McEvoy J & Giger W (1993) Bioaccumulation of the lipophilic metabolites of nonionic surfactants in freshwater organisms. *Environ Pollut*, 79:243-248.
- Ahel M, Giger W & Koch M (1994) Behaviour of alkylphenol polyethoxylate surfactants in the aquatic environment. I: Occurrence and transformation in sewage treatment. *Water Research*, 28:1131-1142.
- Afonso LO, Iwama GK, Smith J & Donaldson EM (1999) Effects of the aromatase inhibitor Fadrozole on plasma sex steroid secretion ovulation rate in female coho salmon, *Oncorhynchus kisutch*, close to final maturation. *Gen Comp Endocrinol*, 113:221-229.
- Afonso LO, Iwama GK, Smith J & Donaldson EM (2000) Effects of the aromatase inhibitor Fadrozole on reproduction steroids and spermiation on male coho salmon (*Oncorhynchus kisutch*) during sexual maturation. *Aquacult*, 188:175-187.
- Ahlborg UG, Becking GC, Birnbaum LS, Brower A, Derks HJGM, Feeley M, Golor G, Hanberg A, Larsen JL, Liem AKD, Safe SH, Schatter C, Waern F, Younes M & Yrjänheikki E (1994) Toxic equivalency factors for dioxin-like PCBs. *Chemosphere*, 28:1049-1067.
- Aho M, Koivisto AM, Tammela TL & Auvinen A (2000) Is the incidence of hypospadias increasing? Analysis of Finnish hospital discharge data 1970-1994. *Environ Health Perspect* 108:463-465.
- Akaike MH, Kato H, Ohno H & Kobayashi T (1991) Hyperactivity and spatial maze learning impairment of adult rats with temporary neonatal hypothyroidism. *Neurotoxicol Teratol*, 13:317-322.
- Akre O, Cnattingius S, Bergstrom R, Kvist U, Trichopoulos D & Ekbohm A (1999a) Human fertility does not decline: Evidence from Sweden. *Fertil Steril*, 71:1066-1069.
- Akre O, Lipworth L, Cnattingius S, Sparen P & Ekbohm A (1999b) Risk factor patterns for cryptorchidism and hypospadias. *Epidemiol*, 10:364-369.
- Allan BB, Brant R, Seidel JE & Jarrell JF (1997) Declining sex ratios in Canada. *Can Med Assoc J*, 156:37-41.
- Allen Y, Scott AP, Matthiessen P, Haworth S, Thain JE & Feist S (1999a) Survey of estrogenic activity in United Kingdom estuarine and coastal waters and its effects on gonadal development of the flounder *Platichthys flesus*. *Environ Toxicol Chem*, 18:1791-1800.
- Allen Y, Matthiessen P, Scott AP, Haworth S, Feist S & Thain JE (1999b) The extent of oestrogenic contamination in the UK estuarine and marine environments—further surveys of flounder. *Sci Total Environ*, 233:5-20.
- Altenkirch H, Stoltenburg G, Haller D, Hoppmann D & Walter G (1996) Clinical data on three cases of occupationally induced PCB intoxication. *Neurotoxicol*, 17:639-644.
- Alzieu C (1991) Environmental problems caused by TBT in France: Assessment, regulations, prospects. *Mar Environ Res*, 32:7.
- Ambrus A (1999) Quality of residue data. In: Brooks GT, Roberts TR, eds. *Pesticide Chemistry and Bioscience: The Food-Environment Challenge*. Cambridge, UK: Royal Society of Chemistry, pp. 339-350.
- Anderson HA, Falk C, Hanrahan L, Olson J, Burse VW, Needham L, Paschal D, Patterson DJ & Hill RHJ (1998) Profiles of Great Lakes critical pollutants: A sentinel analysis of human blood and urine. The Great Lakes Consortium. *Environ Health Perspect*, 106:279-289.
- Andersson A, Linder CE, Olsson M, Reutergårdh L, Uvemo UB & Wideqvist U (1988) Spatial differences and temporal trends of organochlorine compounds in biota from the Northwestern hemisphere. *Arch Environ Contam Toxicol*, 17:755-765.
- Andersson Ö, Linder C-E, Olsson M, Reutergårdh L, Uvemo U-B & Wideqvist U (1988a) Spatial differences and temporal trends of organochlorine compounds in biota from the Northwestern Hemisphere. *Arch Environ Contam Toxicol*, 17:755-765.
- Andersson Ö & Wartanian A (1992) Levels of polychlorinated camphenes (toxaphene), chlorinated compounds and polybrominated diphenyl ethers in seals from Swedish waters. *Ambio*, 21:550-552.
- Andersson T, Förllin L, Hårdig J & Larsson Å (1988b) Physiological disturbances in fish living in coastal water polluted

- with bleached kraft pulp mill effluents. *Can J Fish Aquat Sci*, 45:1525-1536.
- Andolz P, Bischa MA & Vila J (1999) Evolution of semen quality in North-Eastern Spain: A study in 22,759 infertile men over a 36 year period. *Hum Reprod*, 14:731-735.
- Ankley GT, Johnson RD, Toth G, Folmar LC, Detenbeck NE & Bradbury SP (1997) Development of a research strategy for assessing the ecological risk of endocrine disruptors. *Revs Toxicol*, 1:71-106.
- Ankley G T, Mihaich E, Stahl R, Tillitt D, Colborn T, McMaster S, Miller R, Bantle J, Campbell P, Denslow N, Dickerson R, Folmar L, Fry M, Geisy J, Gray LE, Guiney P, Hutchinson T, Kennedy S, Kramer V, LeBlanc G, Mayes M, Nimrod A, Patino R, Peterson R, Purdy R, Ringer T, Touart L, Van Der Kraak G & Zacharewski T (1998a) Overview of a workshop on screening methods for detecting potential (anti-) estrogenic/androgenic chemicals in wildlife. *Environ Toxicol Chem*, 17:68-87.
- Ankley GT, Tietge JE, DeFoe DL, Jensen KM, Holcombe GW, Durhan EJ & Diamond SA (1998b) Effects of ultraviolet light and methoprene on survival and development of *Rana pipiens*. *Environ Toxicol Chem*, 17:2530-2542.
- Ankley GT & Giesy JP (1998c) Endocrine disruptors in wildlife: A weight of evidence perspective. In: Kendall R, Dickerson R, Suk W & Giesy J, eds. *Principles and Processes for Assessing Endocrine Disruption in Wildlife*. Pensacola, FL: SETAC Press, pp. 349-368.
- Ankley GT, Jensen KM, Kahl MD, Korte JJ & Makynen EA (2001) Description and evaluation of a short-term reproduction test with the fathead minnow (*Pimephales promelas*). *Environ Toxicol Chem*, 20:1296-1303.
- Ansell PE, Bennett V, Bull D, Jackson MB, Pike LA, Pike MC, Chilvers CED, Dudley NE, Gough MH, Griffiths DM, Redman C, Wilkinson AR, Macfarlane A & Coupland CAC (1992) Cryptorchidism: A prospective study of 7500 consecutive male births. *Arch Dis Child*, 67:892-899.
- Arbuckle T & Sever L (1999) Pesticide exposure and fetal death: A review of the epidemiologic literature. *Crit Rev Toxicol*, 28:229-270.
- Arbuckle TE, Savitz DA, Mery LS & Curtis KM (1999) Exposure to phenoxy herbicides and the risk of spontaneous abortion. *Epidemiol*, 10:1-9.
- Aribarg A, Kenkeerati W, Vorapaiboonsak V, Leepipatpaiboon S & Farley TMM (1986) Testicular volume, semen profile and serum hormone levels in fertile Thai males. *Int J Androl*, 9:170-180.
- Arnold DL, Nera EA, Stapley R, Tolnai G, Claman P, Hayward S, Tryphonas H & Bryce F (1996) Prevalence of endometriosis in rhesus (*Macaca mulatta*) monkeys ingesting PCB (Arochlor 1254): Review and evaluation. *Fund Appl Tox*, 31:42-55.
- Aronson KL, Miller AB, Woolcott CG, Sterns EE, McCready DR, Lickley LA, Fish EB, Hiraki GY, Holloway C, Ross T, Hanna WM, SenGupta SK & Weber JP (2000) Breast adipose tissue concentrations of polychlorinated biphenyls and other organochlorines and breast cancer risk. *Cancer Epidemiol Biomarkers Prev*, 9:55-63.
- Ashby J (1998) Issues associated with the validation of *in vitro* and *in vivo* methods for assessing endocrine disrupting chemicals. *Pure and Applied Chemistry*, 70(9):1735-1745.
- Ashby J, Tinwell H & Haseman J (1999) Lack of effects for low dose levels of bisphenol A and diethylstilbestrol on the prostate gland of CF1 mice exposed *in utero*. *Regul Toxicol Pharmacol*, 30:156-166.
- Ashby J (2000) Getting the problem of endocrine disruption into focus: The need for a pause for thought. *APMIS*, 108:805-813.
- Ashengrau A & Monson RR (1989) Paternal military service and risk of spontaneous abortion. *J Occup Med*, 31:618-623.
- Ashengrau A & Monson RR (1990) Paternal military service in Vietnam and the risk of late adverse pregnancy outcomes. *Am J Pub Health*, 80:1218-1224.
- Ashfield LA, Pottinger TG & Sumpter JP (1998) Exposure of female juvenile rainbow trout to alkylphenolic compounds results in modification to growth and ovosomatic index. *Environ Toxicol Chem*, 17:679-686.
- Asman DC, Takimoto C, Pitot HC, Dunn TJ & Linndahl R (1993) Organization and characterization of the rat class 3 aldehyde dehydrogenase gene. *J Biol Chem*, 268:12530-12536.
- Asplund L, Athanasiadou M, Sjödin A, Bergman Å & Börjesson H (1999) Organohalogen substances in muscle, egg and blood from healthy Baltic salmon (*Salmo salar*) and Baltic salmon that produced offspring with the M74 syndrome. *Ambio*, 28:67-76.
- Asplund L, Malmvärn A, Marsh G, Athanasiadou M, Bergman Å & Kautsky L (2001) Hydroxylated brominated diphenyl ethers in salmon (*Salmo slar*), mussels (*Mytilus edulis*) and the red alga (*Ceramium tenuicorne*) from the Baltic Sea-Natural product in Baltic Sea biota. *Organohalogen Compounds*, 52:189-194.
- Astolfi P & Zonta LA (1999) Reduced male births in major Italian cities. *Hum Reprod*, 14:3116-3119.
- Astroff B, Rowlands C, Dickerson R & Safe S (1990) 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin inhibition of 17 β -estradiol-induced increase in rat uterine EGF receptor binding activity and gene expression. *Mol Cell Endocrinol*, 72:247-252.
- Atuma SS, Aune M, Bergh A, Wicklund-Glynn A, Darnerud PO, Larsson L, Olsson M & Sandstrom O (1998) Polychlorinated biphenyls in salmon (*Salmo salar*) from the Swedish East coast. *Organohalogen Compounds*, 36:153-156.
- Auger J & Jouannet P (1997) Evidence for regional differences of semen quality among fertile French men. *Fédération Française des Centres d'Etude et de Conservation des Oeufs et du Sperme humains*. *Hum Reprod*, 12:740-745.
- Auger J, Kunstmann JM, Czyglik F & Jouannet P (1995) Decline in semen quality among fertile men in Paris during the past 20 years. *New Engl J Med*, 332:281-285.
- Aumuller G, Enderle-Schmidt U, Seitz J, Muntzing J & Chandler JA (1987) Ultrastructure and immunohistochemistry of the lateral prostate in aged rats. *The Prostate*, 10:245-256.
- Ayotte P, Dewailly E, Ryan JJ, Bruneau S & Lebel G (1997) PCBs and dioxin-like compounds in plasma of adult Inuit living in Nunavik (Arctic Quebec). *Chemosphere*, 34:1459-1468.
- Bagga D, Anders KH, Wang HJ, Roberts E & Glaspy JA (2000) Organochlorine pesticide content of breast adipose tissue from women with breast cancer and control subjects. *J Natl Cancer Inst*, 92(9):750-753.
- Baker VA, Hepburn PA, Kennedy SJ, Jones PA, Lea LJ, Sumpter JP & Ashby J (1999) Safety evaluation of phytoesterol esters. Part I: Assessment of oestrogenicity using a combination of *in vivo* and *in vitro* assays. *Food and Chemical Toxicology* 37(1):13-22.
- Balaguer P, Joyeux A, Denison MS, Vincent R, Gillesby BE & Zacharewski T (1996) Assessing the estrogenic and dioxin-like activities of chemicals and complex mixtures using *in vitro* recombinant receptor-reporter gene assays. *Can J Physiol Pharmacol*, 74(2):216-222.
- Baldwin, WS, Bailey R, Long KE & Klaine S (2001) Incomplete ecdysis is an indicator of ecdysteroid exposure in *Daphnia magna*. *Environ Toxicol Chem*, 20:1564-1569.
- Ball HA, Reinhard M & McCarty P (1989) Biotransformation of

- halogenated and nonhalogenated octylphenol polyethoxylate residues under aerobic and anaerobic conditions. *Environmental Science Technology*, 23:951-961.
- Barnes S (1995) Effect of genistein on *in vitro* and *in vivo* models of cancer. *J Nutr*, 125:777S-783S.
- Barnes S (1997) The chemopreventive properties of soy isoflavonoids in animal models of cancer. *Breast Cancer Res Treat*, 46:169-179.
- Barnes S (1998a) Phytoestrogens and breast cancer. *Clin Endocrinol Metab*, 12:559-579.
- Barnes S (1998b) Phytoestrogens and breast cancer. In: Adlercreutz H, ed. *Phytoestrogens*. Bailliere's Clinical Endocrinology and Metabolism. London: Bailliere Tindall, pp. 605-624.
- Barr DB, Barr JR, Driskell WJ, Hill RHJ, Ashley DL, Needham LL, Head SL & Sampson EJ (1999) Strategies for biological monitoring of exposure for contemporary-use pesticides. *Toxicol Ind Health*, 15:168-179.
- Barter RA & Klaassen CD (1992) UDP-glucuronosyltransferase inducers reduce thyroid hormone levels in rats by an extrathyroidal mechanism. *Toxicol Appl Pharmacol*, 113:36-42.
- Barthold JS, Kryger JV, Derusha AM, Duel BP, Jednak R & Skafar DF (1999) Effects of an environmental endocrine disruptor on fetal development, estrogen receptor (alpha) and epidermal growth factor receptor expression in the porcine male genital tract. *J Urol*, 162:864-871.
- Bates GW (1998) Normal and abnormal puberty. In: Carr BR & Blackwell RE, eds. *Textbook of Reproductive Medicine*. Stamford, CT: Appleton and Lange, pp. 93-111.
- Bates MN, Buckland SJ, Ellis EK, Garrett N, Needham LL, Patterson DG Jr, Turner WE, Russell D, Wilson N & Duncan A (1999) PCDDs and PCDFs in the serum of the non-occupationally exposed New Zealand population. *Organohalogen Compounds*, 44:17-21 Dioxin '99.
- Batty J & Lim R (1999) Morphological and reproductive characteristics of male mosquitofish (*Gambusia affinis holbrooki*) inhabiting sewage-contaminated waters in New South Wales, Australia. *Arch Environ Contam Toxicol*, 36:301-307.
- Batty J, Levitt RA, Biondi N & Polin D (1990) An ecotoxicological study of the white footed mouse (*Peromyscus leucopus*) inhabiting a polychlorinated biphenyls-contaminated area. *Arch Environ Contam Toxicol*, 19:283-290.
- Bayne C, Donnelly F, Ross M & Habib F (1999) *Serenoa repens* (Permixon): A 5alpha reductase types I and II inhibitor—new evidence in a coculture model of BPH. *Prostate*, 40:232-241.
- Becher H, Flesch-Janys D, Kaupinen T, Kigevinas M, Steindorf K, Manz A & Wahrendorf J (1996) Cancer mortality in German male workers exposed to phenoxy herbicides and dioxins. *Cancer Causes Control*, 7(3):312-321.
- Becker KL (1995) Principles and Practice of Endocrinology and Metabolism, Second Edition. Philadelphia, PA: Lippincott.
- Becker S & Berhane K (1997) A meta-analysis of 61 sperm count studies revisited. *Fertil Steril*, 67:1103-1108.
- Beeson MD, Driskell WJ & Barr DB (1999) Isotope dilution highperformance liquid chromatography/tandem mass spectrometry method for quantifying urinary metabolites of atrazine, malathion, and 2,4-dichlorophenoxyacetic acid. *Anal Chem*, 71:3526-3530.
- Behringer RR (1995) The Mullerian inhibitor and mammalian sexual development. *Philos Trans R Soc Lond B Biol Sci*, 350:285-288.
- Bellido C, Gaytaan F, Aguilar R, Pinilla L & Aguilar E (1985) Prepubertal reproductive defects in neonatal estrogenized male rats. *Biol Reprod*, 33:381-387.
- Bellingham DL, Sar M & Cidlowski JA (1992) Methotrexate-induced overexpression of functional glucocorticoid receptors in Chinese hamster ovary cells. *Mol Cell Endocrinol*, 83:153-171.
- Ben Shlomo I, Franks S & Adashi EY (1995) The polycystic ovary syndrome: Nature or nurture? *Fertil Steril*, 63:953-954.
- Bengtsson B-E, Hill C, Bergman Å, Brandt I, Johansson N, Magnhagen C, Södergren A & Thulin J (1999) Reproductive disturbances in Baltic fish: A synopsis of the FiRe project. *Ambio*, 28:2-8.
- Benirschke K (1981) Hermaphrodites, freemartins, mosaics, and chimeras in animals. In: Austin CR & Edwards RG, eds. *Mechanisms of Sex Differentiation in Animals and Man*. London: Academic Press, pp. 421-463.
- Bennett ER & Metcalfe CD (1998) Distribution of alkylphenol compounds in Great Lakes sediments, United States and Canada. *Environ Toxicol Chem*, 17:1230-1235.
- Bennett LM, McAllister KA, Malphurs J, Ward T, Collins NK, Seely JC, Gowen LC, Koller BH, Davis BJ & Wiseman RW (2000) Mice heterozygous for a *Brcal* or *Brc2* mutation display distinct mammary gland ovarian phenotypes in response to diethylstilbestrol. *Cancer Res*, 60:3461-3469.
- Bennett RS, Williams BA, Schmedding DW & Bennett JK (1991) Effects of dietary exposure to methyl parathion on egg laying and incubation in mallards. *Environ Toxicol Chem*, 10:501-507.
- Bennetts HW, Underwood EJ & Shier FL (1946) A specific breeding problem of sheep on subterranean clover pastures in Western Australia. *Aust Vet J*, 22:2-12.
- Bennie DT, Sullivan CA, Lee H-B, Peart TE & Maguire RJ (1997) Occurrence of alkylphenols and alkylphenol mono- and diethoxylates in natural waters of the Laurentian Great Lakes basin and the upper St. Lawrence River. *Sci Total Environ*, 193:263-275.
- Bennie DT, Sullivan CA, Lee H-B & Maguire RJ (1998) Alkylphenol polyethoxylate metabolites in Canadian sewage treatment plant effluent streams. *Water Qual. Res J Can*, 33:231-252.
- Bennie DT, Sullivan CA, Lee H-B & Maguire RJ (1999) Alkylphenol polyethoxylate metabolites in Canadian sewage treatment plant effluent streams. *Water Qual. Res J Can*, 34:79-124.
- Bennie DT (1999) Review of the environmental occurrence of nonylphenol and nonylphenol ethoxylates. *Water Qual. Res J Canada*, 34:79-122.
- Benshusan A, Shoshani O, Paltiel O, Schenker JG & Lewin A (1997) Is there a decrease in sperm parameters among healthy young men? A survey of sperm donations during 15 years. *J Assist Reprod Genet*, 14:347-353.
- Bentley PJ (1998) Comparative Vertebrate Endocrinology, Third Edition. Cambridge: Cambridge University Press.
- Bentvelsen FM, Brinkman AO, van der Linden JE, Schroder FH & Nijman JM (1995) Decreased immunoreactive androgen receptor levels are not the cause of isolated hypospadias. *Brit J Urol*, 76:384-388.
- Bercovici B, Wassermann M, Cucos S, Ron M & Wassermann D (1983) Serum levels of polychlorinated biphenyls and some organochlorine insecticides in women with recent and former missed abortions. *Environ Res*, 30:169-174.
- Bergek S, Bergqvist PA, Hjelt M, Olsson, Rappe C, Roos A &

- Zook D (1992) Concentrations of PCDDs and PCDFs in seals from Swedish waters. *Ambio*, 21:553-556.
- Bergeron JM, Crews D & McLachlan JA (1994) PCBs as environmental estrogens: Turtle sex determination as a biomarker of environmental contamination. *Environ Health Perspect*, 102(9):780-781.
- Bergman A (1999a) Health condition of the Baltic grey seal (*Halichoerus grypus*) during two decades. Gynaecological health improvement but increased prevalence of colonic ulcers. *APMIS*, 107:270-282.
- Bergman A (1999b) Prevalence of lesions associated with a disease complex in the Baltic grey seal (*Halichoerus grypus*) during 1977-1996. In: O'Shea TJ, Reeves RR & Long AK, eds. *Marine Mammals and Persistent Ocean Contaminants: Proceedings of the Marine Mammal Commission Workshop*. Keystone, Colorado, 12-15 October 1998, pp. 139-143.
- Bergman A & Olsson M (1985) Pathology of Baltic grey seal and ringed seal females with special reference to adrenocortical hyperplasia: Is environmental pollution the cause of a widely distributed disease syndrome? *Finnish Game Res*, 44:47-62.
- Bergman A, Klasson-Wehler E & Kuroki H (1994) Selective retention of hydroxylated PCB metabolites in blood. *Environ Health Perspect*, 102:464-469.
- Bergstrom R, Adami HO, Mohnner M, Zatonski W, Storm H, Ekblom A, Tretli S, Teppo L, Akre O & Hakulinen T (1996) Increase in testicular cancer incidence in six European countries: A birth cohort phenomenon. *J Natl Cancer Inst*, 88(11):727-733.
- Berkowitz GS & Lapinski RH (1996) Risk factors for cryptorchidism: A nested case-control study. *Paediatr Perinat Epidemiol*, 10:39-51.
- Berkowitz GS, Lapinski RH, Godbold JH, Dolgin SE & Holzman IR (1996) Maternal and neonatal risk factors for cryptorchidism. *Epidemiol*, 6:127-131.
- Berling S & Wolner-Hanssen P (1997) No evidence of deteriorating semen quality among men in infertile relationships during the last decade: A study of males from Southern Sweden. *Hum Reprod*, 12:1002-1005.
- Berman NG, Wang C & Paulsen CA (1996) Methodological issues in the analysis of human sperm concentration data. *J Androl*, 17:68-73.
- Bernhoft A, Wiig O & Skaare J (1997) Organochlorines in polar bears (*Ursus maritimus*) at Svalbard. *Environ Pollut*, 95:159-175.
- Bernt KE, Hamill MO, Lebeuf M & Kovacs KM (1999) Levels and patterns of PCBs and OC pesticides in harbour and grey seals from the St. Lawrence Estuary, Canada. *Sci Total Environ*, 243/244:243-262.
- Berta P, Hawkins JR, Sinclair AH, Taylor A, Griffiths BL, Goodfellow PN & Fellous M (1990) Genetic evidence equating SRY and the testis-determining factor. *Nature*, 348:448-450.
- Bertazzi PA, Riboldi L, Pesatori A, Radice L & Zocchetti C (1987) Cancer mortality of capacitor manufacturing workers. *Am J Ind Med*, 11:165-176.
- Bertazzi PA, Pestori AC, Consonni D, et al. (1993) Cancer incidence in a population accidentally exposed to 2,3,7,8-tetrachlorodibenzo-*para*-dioxin. *Epidemiol*, 4:398-406.
- Besedovsky HG & Del Rey A (1996) Immune-neuro-endocrine interactions: Facts and hypothesis. *Endocrinol Rev* 17:64-102.
- Bettin C, Ohlmann J & Stroben E (1996) TBT-induced imposex in marine neogastropods is mediated by an increasing androgen level. *Helgol Meeresunters* 50:299-317.
- Bevans HE, Goodbred SL, Miesner JF, Watkins SA, Gross TS, Denslow ND & Schoeb T (1996) Synthetic organic compounds and carp endocrinology and histology in Las Vegas Wash and Las Vegas and Callville Bays of Lake Mead, Nevada, 1992 and 1995. U.S. Geological Survey, Nevada Basin and Range Study Unit, Carson City, NV, Water Resources Investigations Report 96-4266, 12 pp.
- Bhasi S, Sikka S, Fiedler T, Sod-Moriah U, Levine HB, Swerdloff RS & Rajfer J (1986) Hormonal effects of ketoconazole *in vivo* in the male rat: mechanism of action. *Endocrinol*, 118:1229-1232.
- Bigelow PL, Jarrell J, Young MR, Keefe TJ & Love EJ (1998) Association of semen quality and occupational factors: Comparison of case-control analysis of continuous variables. *Fertil Steril*, 69:11-18.
- Bignert A, Litzén K, Odsjö T, Olsson M, Persson W & Reutergårdh L (1995) Time-related factors influence the concentrations of DDT, PCBs and shell parameters in eggs of Baltic guillemot (*Uria aalge*), 1961-1989. *Environ Pollut*, 89:27-36.
- Bignert A, Olsson M, Bergqvist PA, Bergek S, Rappe C, de Wit C & Jansson B (1989) Polychlorinated dibenzo-*p*-dioxins (PCDD) and dibenzo-furans (PCDF) in seal blubber. *Chemosphere*, 19:551-556.
- Bignert A, Olsson M, de Wit C, Litzén K, Rappe C & Reutergårdh L (1994) Biological variation—an important factor to consider in ecotoxicological studies based on environmental samples, *Fresenius. J Anal Chem* 348:76-85.
- Bignert A, Greyerz E, Olsson M, Roos A, Asplund L & Kärsrud A-S (1998a) Similar decreasing rate of OCs in both eutrophic and oligotrophic environments—a result of atmospheric degradation? Part II. *Organohalogen Compounds*, 36:459-462.
- Bignert A, Olsson M, Asplund L & Haggberg L (1998b) Fast initial decrease in environmental concentrations of OCs—A result of atmospheric degradation? Part I. *Organohalogen Compounds*, 36:373-376.
- Bignert A, Olsson M, Persson W, Jensen S, Zakrisson S, Litzén K, Eriksson U, Haggberg L & Alsberg T (1998c) Temporal trends of organochlorines in Northern Europe, 1967-1995. Relation to global fractionation, leakage from sediments and international measures. *Environ Pollut*, 99:177-198.
- Birnbaum LS (1994) Endocrine effects of prenatal exposure to PCBs, dioxins and other xenobiotics: Implications for policy and research. *Environ Health Perspect*, 102:676-679.
- Birnbaum LS (1995) Workshop on perinatal exposure to dioxinlike compounds. V: Immunologic effects. *Environ Health Perspect*, 103(Suppl 2):157-160.
- Birnbaum LS & Tuomisto J (2000) Non-carcinogenic effects of TCDD in animals. *Food Addit Contam* 17:275-288.
- Bishop CA, Brooks RJ, Carey JH, Ng P, Norstrom RJ & Lean DR (1991) The case for a cause-effect linkage between environmental contamination and development in eggs of the common snapping turtle (*Chelydra s. serpentina*) from Ontario, Canada. *J Toxicol Environ Health*, 33(4):521-547.
- Bishop CA, Ng P, Pettit KE, Kennedy SW, Stegeman JJ, Norstrom RJ & Brooks RJ (1998) Environmental contamination and developmental abnormalities in eggs and hatchlings of the common snapping turtle (*Chelydra serpentina serpentina*) from the Great Lakes-St. Lawrence River basin (1989-91). *Environ Pollut*,

101(1):143-156.

- Bitman J, Cecil HC & Fries GF (1970) DDT-induced inhibition of avian shell gland carbonic anhydrase: A mechanism for thin egg shells. *Science*, 168:594-596.
- Bitman J, Cecil HC, Harris SJ & Fries GF (1968) Estrogenic activity of *o,p'*-DDT in the mammalian uterus and avian oviduct. *Science*, 162:371-372.
- Bjerke DL, Brown TJ, MacLusky NJ, Hochberg RB & Peterson RE (1994) 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*, 127:258-267.
- Blackburn MA & Waldo MJ (1995) Concentrations of alkylphenols in rivers and estuaries in England and Wales. *Water Res*, 29:1623-1629.
- Blair PB (1992) Immunologic studies of women exposed *in utero* to diethylstilbestrol. In: Colborn T & Clement C, eds. *Chemically-Induced Alterations in Sexual and Functional Development: The Wildlife/Human Connection*. Princeton, NJ: Princeton Scientific Publishing Co., pp. 289-293.
- Blair PB, Noller KL, Turiel J, Forghani B & Hagens S (1992) Disease patterns and antibody responses to viral antigens in women exposed *in utero* to diethylstilbestrol. In: Colborn T & Clement C, eds. *Chemically-Induced Alterations in Sexual and Functional Development: The Wildlife/Human Connection*. Princeton, NJ: Princeton Scientific Publishing Co., pp. 283-288.
- Blanck HM, Marcus M, Tolbert BE, Rubin C, Henderson AK, Hertzberg VS, Zhang RH & Cameron L (2000) Age at menarche and tanner stage in girls exposed *in utero* and postnatally to polybrominated biphenyl. *Epidemiol*, 11:641-647.
- Blomkvist G, Roos A, Jensen S, Bignert A & Olsson M (1992) Concentrations of DDT and PCB in seals from Swedish and Scottish Waters. *Ambio*, 21:539-545.
- Blount BC, Milgram KE, Silva MJ, Malek NA, Reidy JA, Needham LL & Brock JW (2000a). Quantitative detection of eight phthalate metabolites in human urine using HPLC-APCIMS/MS. *Anal Chem*, 72:4127-4134.
- Blount BC, Silva MJ, Caudill SP, Needham LL, Pirkle JL, Sampson EJ, Lucier GW, Jackson RJ & Brock JW (2000b). Levels of seven urinary phthalate metabolites in a human reference population. *Environ Health Perspect* 108:979-982.
- Boetger-Tong H, Murthy L, Chiappetta C, Kirkland JL, Goodwin B, Adlercreutz H, Stancel GM & Makela S (1998) A case of laboratory animal feed with high estrogenic activity and its impact on *in vivo* responses to exogenously administered estrogens. *Environ Health Perspect*, 196:369-373.
- Bolander FF (1994) *Molecular Endocrinology*, Second Edition. San Diego, CA: Academic Press, Inc.
- Bonde JP, Kold Jensen T, Brixen Larsen S, Abell A, Scheike T, Hjollund NH, Kolstad HA, Ernst E, Giwercman A, Skakkaek NE, Keiding N & Olsen J (1998) Year of birth and sperm count in 10 Danish occupational studies. *Scand J Work Environ Health*, 24:407-413.
- Bongiovanni AM (1983) An epidemic of premature thelarche in Puerto Rico. *J Pediatr*, 103:245-246.
- Boon JP, Reijnders PJH, Dols J, Wensvoort P & Hillebrand MTJ (1987) The kinetics of individual polychlorinated biphenyl congeners in female harbour seals (*Phoca vitulina*), with evidence for structure-related metabolism. *Aquat Toxicol*, 10:307-324.
- Borgmann U & Whittle DM (1991) Contaminant concentration trends in Lake Ontario lake trout (*Salvelinus namaycush*): 1977 to 1988. *J Great Lakes Res*, 17:368-381.
- Börjeson H & Norrgren L (1997) M74 syndrome: a review of potential etiological factors. In: Rolland RM, Gilbertson M & Peterson RE, eds. *Chemically Induced Alterations in Functional Development and Reproduction of Fishes*. SETAC Technical Publications Series. Pensacola, FL: SETAC Press, pp. 153-166.
- Borrell A & Aguilar A (1993) DDT and PCB pollution in blubber and muscle of long-finned pilot whales from the Faroe Islands. In: Donovan GP, Lockyer CH, Martin AR, eds. *Biology of Northern Hemisphere Pilot Whales*. Cambridge, U.K.: International Whaling Commission, pp. 351-358.
- Bortone SA & Cody RP (1999) Morphological masculinization in poeciliid females from a paper mill effluent receiving tributary of the St. Johns River, Florida, USA. *Bull Environ Contam Toxicol*, 63:150-156.
- Bosland MC (1992) Animal models for the study of prostatic carcinogenesis. *J Cell Biochem*, 16H(Suppl):89-98.
- Boss WR & Witschi E (1947) The permanent effects of early stilbestrol injections on the sex organs of the Herring Gull (*Larus argentatus*). *J Exp Zool*, 105:61-77.
- Bouker KB & Hilakivi-Clarke L (2000) Genistein: does it prevent or promote breast cancer? *Environ Health Perspect*, 108:701-708.
- Bousfield GR, Perry WM & Ward DN (1994) Gonadotropins: chemistry and biosynthesis. In: Knobil E & Neill JD, ed. *The Physiology of Reproduction*, Second Edition. New York: Raven Press, pp. 1304-1348.
- Bowerman WW, Giesy JP, Best DA & Kramer VJ (1995) A review of factors affecting productivity of Bald Eagles in the Great Lakes region: Implications for recovery. *Environ Health Perspect*, 103:51-59.
- Bowler JK (1977) Longevity of reptiles and amphibians in north american collections. *Society for the Study of Amphibians and Reptiles. Assoc Fish and Wildlife Agencies*, 37: 212-221.
- Boyd JA, Clark GC, Walmer DK, Patterson DG, Needham LL & Liu GW (1995) Endometriosis and the environment: Biomarkers of toxin exposure. *Conference on Endometriosis 2000*, May 15-17, 1995. Bethesda, MD: National Institutes of Health.
- Bradford-Hill A (1965) The environment and disease: Association or causation? *Proc R Soc Med*, 58:295-300.
- Brandt I, Lund J, Bergman Å, Klasson-Wehler E, Poellinger L & Gustafsson J-Å (1985) Target cells for the polychlorinated biphenyl metabolite 4,4'-bis(methylsulfonyl)-2,2',5,5'-tetrachlorobiphenyl in lung and kidney. *Drug Metab Dispos*, 13:490-496.
- Breedlove SM, Cooke BM & Jordan CL (1999) The orthodox view of brain sexual differentiation. *Brain Behav* 54(1):8-14.
- Brodie A, Lu Q & Long B (1999) Aromatase and its inhibitors. *J Steroid Biochem Mol Biol*, 69:205-210.
- Brouwer A & Van den Berg KJ (1986) Binding of a metabolite of 3,3',4,4'-tetrachlorobiphenyl to transthyretin reduces serum vitamin A transport by inhibiting the formation of the protein complex carrying both retinol and thyroxine. *Toxicol Appl Pharmacol*, 85:301-312.
- Brouwer A, Morse DC, Lans MC, Schuur G, Murk AJ, Klasson Wehler E, Bergman Å & Visser TJ (1998) Interactions of persistent environmental organohalogenes with the thyroid hormone system: Mechanisms and possible consequences for animal and human health. *Toxicol Ind Health*, 14:59-84.

- Brown DP (1987) Mortality of workers exposed to polychlorinated biphenyls—an update. *Arch Env Health*, 42:333-339.
- Bruner KL, Matrisian LM, Rodgers WH, Gorstein F & Osteen KG (1997) Suppression of matrix metalloproteinases inhibits establishment of ectopic lesions by human endometrium in nude mice. *J Clin Invest*, 99:2851-2857.
- Bruner-Tran KL, Rier SE, Eisenberg E & Osteen KG (1999) The potential role of environmental toxins in the pathophysiology of endometriosis. *Gynecol Obstet Invest*, 48(Suppl 1):45-56.
- Brunet JS, Ghadrian P, Rebbeck TR, Lerman C, Garber JE, Tonin PE, Abrahamson J, Foulkes WD, Daly M, Wagner-Costalas J, Godwin A, Olopade OI, Moslehi R, Liedt A, Futreal PA, Weber BL, Lenoir GM, Lynch HT & Narod SA (1998) Effect of smoking on breast cancer in carriers of mutant BRCA1 or BRCA2 genes. *J Natl Cancer Inst*, 90:761-766.
- Brunner PH, Capri S, Marcomini A & Griger W (1988) Occurrence and behaviour of linear alkylbenzenesulphonates, nonylphenol, nonylphenol mono- and nonylphenol diethoxylates in sewage and sewage sludge treatment. *Water Research*, 22:1465-1472.
- Brunstrom B, Olsson M & Roos A (1998) 2,3,7,8-TCDD equivalent concentrations in livers from Swedish otters determined with a bioassay. *Organohalogen Compounds*, 39:149-151.
- Brunstrom B, Lund BO, Bergman A, Asplund L, Athanassiadis I, Athanasiadou M, Jensen S & Ordberg J (2001) Reproductive toxicity in mink (*Mustela vison*) chronically exposed to environmentally relevant polychlorinated biphenyl concentrations. *Environ Toxicol Chem*, 20:2318-2327.
- Bryan GW, Gibbs PE, Hummerstone LG & Burt GR (1986) The decline of the gastropod *Nucella lapillus* around south-west England: Evidence for the effect of tributyltin from anti-fouling paints. *J Marine Biol Assoc UK*, 66:611-640.
- Buck GM, Mendola P, Vena JE, Sever LE, Kostyniak P, Griegerstein H, Olson J & Stephen FD (1999) Paternal Lake Ontario fish consumption and risk of conception delay, New York State angler cohort. *Environ Res*, 80:S13-S18.
- Budziszewska B, Jaworska L & Larson W (1995) Repeated morphine administration down-regulates glucocorticoid, but not mineralocorticoid, receptors in the rat hippocampus. *Psychoneuroendocrinol*, 20:75-81.
- Bujan L, Mansat A, Pontonnier F & Mieusset R (1996) Time series analysis of sperm concentration in fertile men in Toulouse, France between 1977 and 1992. *Brit Med J*, 312:471-472.
- Bulger WH, Muccitelli RM & Kupfer D (1978a) Interactions of methoxychlor, methoxychlor base-soluble contaminant, and 2,2-bis(*p*-hydroxyphenyl)-1,1,1-trichloroethane with rat uterine estrogen receptor. *J Toxicol Environ Health*, 4:881-893.
- Bulger WH, Muccitelli RM & Kupfer D (1978b) Studies on the *in vivo* and *in vitro* estrogenic activities of methoxychlor and its metabolites. Role of hepatic mono-oxygenase in methoxychlor activation. *Biochem Pharmacol*, 27:2417-2423.
- Bunch T, Panter KE & James LF (1992) Ultrasound studies of the effects of certain poisonous plants on uterine function and fetal development in livestock. *J Animal Sci*, 70:1639-1643.
- Burgoyne PS (1993) A Y-chromosomal effect on blastocyst cell number in mice. *Development*, 117:341-345.
- Burkhart JG, Helgen JC, Fort DJ, Gallagher K, Bowers D, Propst TL, Gernes M, Magner J, Shelby MD & Lucier G (1998) Inductions of mortality and malformation in *Xenopus laevis* embryos by water sources associated with field frog deformities. *Environ Health Perspect*, 106:841-848.
- Burns RK (1961) Role of hormones in the differentiation of sex. In: Young WC, ed. *Sex and Internal Secretion*, Third Edition. Baltimore, MD: Wilkins & Wilkins Co., pp. 76-161.
- Buser H & Müller MD (2000) Environmental behavior of acetamide pesticide stereoisomers. 1: Stereo and enantioselective determination using chiral high resolution gas chromatography and chiral high performance liquid chromatography. *Environ Sci Technol*, 29:2023-2030.
- Bush B, Bennett AH & Snow JT (1986) Polychlorobiphenyl congeners, *p,p'*-DDE, and sperm function in humans. *Arch Environ Contam Toxicol*, 15:333-341.
- Cagen SZ, Waechter JM, Dimond SS, Breslin WJ, Butala JH, Jekat FW, Joiner RL, Shiotsuka RN, Veenstra GE & Harris LR (1999) Normal reproductive organ development in Wistar rats exposed to bisphenol A in the drinking water. *Regul Toxicol Pharmacol*, 30:130-139.
- Calamari D, ed. (2001) *Chemical Exposure Predictions*. Boca Raton, FL: Lewis Publishers.
- Carey C & Bryant CJ (1995) Possible interrelations among environmental toxicants, amphibian development, and decline of amphibian populations. *Environ Health Perspect*, 103:13-17.
- Carilla E, Briley M, Fauran F, Sultan C & Duveilliers C (1984) Binding of Permixon, a new treatment for prostatic benign hyperplasia, to the cytosolic androgen receptor in the prostate. *J Steroid Biochem*, 1:521-523.
- Carlsen E, Giwercman A, Keiding N & Skakkebaek NE (1992) Evidence for decreasing quality of semen during past 50 years. *Brit Med J*, 305:609-613.
- Carson R (1962) *Silent Spring*. Boston University Press, Boston, Massachusetts.
- Carver LA & Bradford CA (1997) ligand-dependent interaction of the aryl hydrocarbon receptor with a novel immunophilin homolog *in vivo*. *J Biol Chem*, 272:114252-11456.
- Casillas E, Misitano D, Johnson LL, Rhodes LD, Collier TK, Stein JE, McCain BB & Varanasi U (1991) Inducibility of spawning and reproductive success of female English sole (*Parophrys vetulus*) from urban and nonurban areas of Puget Sound, Washington. *Mar Environ Res*, 31:99-122.
- Cassidy A, Bingham S & Setchell KDR (1994) Biological effects of soy protein rich in isoflavones on the menstrual cycle of premenopausal women. *Am J Clin Nutr*, 60:333-340.
- Catenacci G, Barbieri F, Bersani M, Ferioli A & Maroni M (1993) Biological monitoring of human exposure to atrazine. *Toxicol Lett*, 69:217-222.
- Cattet M (1988) Abnormal sex differentiation in black bears (*Ursus americanus*) and brown bears (*Ursus arctos*). *J Mamm*, 69:849-852.
- Cech JJ, Wilson BW & Crosby DG (1998) *Multiple Stresses in Ecosystems*. New York: Lewis Publishers.
- Chan STH & Yeung WSB (1983) Sex control and sex reversal in fish under natural conditions. In: Hoar WS, Randall DJ & Donaldson EM, eds. *Fish Physiology*, Vol. 9B. New York: Academic Press, pp. 171-222.
- Chan WK, Yao G, Gu YZ & Bradfield CA (1999) Cross talk between the aryl hydrocarbon receptor and hypoxia inducible factor signaling pathways—demonstration of competition and compensation. *J Biol Chem*, 274:12115.
- Chang KH, Hsieh KH, Lee TP, Tang SY & Tung TC (1981)

- Immunologic evaluation of patients with polychlorinated biphenyl poisoning: determination of lymphocyte subpopulations. *Toxicol Appl Pharmacol*, 61:58-63.
- Chang KH, Hsieh KH, Tang SY, Tung TC & Lee TP (1982) Immunologic evaluation of patients with polychlorinated biphenyl poisoning: Evaluation of delayed-type hypersensitivity response and its relation to clinical studies. *J Toxicol Environ Health*, 9:217-223.
- Chao WY, Hsu CC & Guo YL (1997) Middle-ear disease in children exposed prenatally to polychlorinated biphenyls and polychlorinated dibenzofurans. *Arch Environ Health*, 52:257-262.
- Chapin RE, Stevens JT, Hughes HL, Kelce WR, Hess RA & Daston GP (1996) Symposium overview: Endocrine modulation of reproduction. *Fundam Appl Toxicol*, 29:1-17.
- Chapin RE, Harris MW, Davis BJ, Ward SM, Wilson RE, Mauney MA, Lockhart AC, Smialowicz RJ, Moser VC, Burka LT & Collins BJ (1997a) The effects of perinatal/juvenile methoxychlor exposure on adult rat nervous, immune, and reproductive system function. *Fundam Appl Toxicol*, 40:138-157.
- Chapin RE, Sloane RA, Haseman JK (1997b) The relationships among reproductive endpoints in Swiss mice, using the reproductive assessment by continuous breeding database. *Fundam Appl Toxicol*, 38:129-142.
- Chedid S, Camus M, Smitz J, Van Steirteghem AC & Devroey P (1995) Comparison among different ovarian stimulation regimens for assisted procreation procedures in patients with endometriosis. *Hum Reprod*, 10:2046-2051.
- Cheek AO, Kow K, Chen J & McLachlan JA (1999) Potential mechanisms of thyroid disruption in humans: Intraaction of organochlorine compounds with thyroid receptor, transthyretin, and thyroid binding globulin. *Environ Health Perspect*, 107:273-278.
- Chen RC, Tang SY, Miyata H, Kashimoto T, Chang YC, Chang KJ & Tung TC (1985) Polychlorinated biphenyl poisoning: Correlation of sensory and motor nerve conduction, neurologic symptoms, and blood levels of polychlorinated biphenyls, quarterphenyls, and dibenzofurans. *Environ Res*, 37:340-348.
- Chester Jones I, Ingleton PM & Philips JG (1987) *Fundamentals of Comparative Vertebrate Endocrinology*. New York: Plenum Press.
- Chia SE, Tay SK & Lim ST (1998) What constitutes a normal seminal analysis? Semen parameters of 243 fertile men. *Hum Reprod*, 13(12):3394-3398.
- Chilvers C, Pike MC, Forman D, Fogelman K & Wadsworth MEJ (1984) Apparent doubling of frequency of undescended testis in England and Wales in 1962-1981. *Lancet*, 2(8389):330-332.
- Chu KH, Wong CK & Vhiu KC (1997) Effects of the insect growth-regulator(s) methoprene on survival and reproduction of the freshwater cladoceran, *Moina macrocopa*. *Environ Pollut* 96:173-178.
- Clare AS, Rittschof D & Costlow JD Jr (1992) Effects of the nonsteroidal ecdysone mimic RH5849 on larval crustaceans. *J Exp Zool*, 262:436-440.
- Clark EJ, Norris DO & Jones RE (1998) Interactions of gonadal steroids and pesticides (DDT, DDE) on gonaduct growth in larval tiger salamanders, *Ambystoma tigrinum*. *Gen Comp Endocrinol*, 109:94-105.
- Clark RL, Anderson CA, Prahallada S, Robertson RT, Lochry EA, Leonard YM, Stevens JL & Hoberman AM (1993) Critical developmental periods for effects on male rat genitalia induced by finasteride, a 5 alpha-reductase inhibitor. *Toxicol Appl Pharmacol*, 119:34-40.
- Clarke AG (1984) Immunological studies on pregnancy in the mouse. In: Crichton DB, ed. *Immunological Aspects of Reproduction in Mammals*. London: Butterworths, pp. 183-182.
- Cline JM & Foth D (1998) Dietary soy antagonizes the effects of estriadol on the mammary gland and uuteri of macaques. In: Dunaif GE, Olin SS, Scimeca J & Thomas JA, eds. *Human Diet and Endocrine Modulation: Estrogenic and Androgenic Effects*. Washington, D.C.: ILSI Press, pp. 292-293.
- Cobb GP & Wood PD (1997) PCB concentrations in eggs and chorioallantoic membranes of loggerhead sea turtles (*Caretta caretta*) from the Cape Romain National Wildlife Refuge. *Chemosphere*, 34(3):539-549.
- Cocco P, Blair A, Congia P, Saba G, Ecce AR & Palmas C (1997) Long-term health effects of the occupational exposure to DDT. A preliminary report. *Ann NY Acad Sci*, 837:246-256.
- Cocco P & Benichou J (1998) Mortality from cancer of the male reproductive tract and environmental exposure to the anti-androgen *p,p'*-dichlorodiphenyldichloroethylene in the United States. *Oncology*, 55:334-339.
- Colborn T & Clement C (1992) *Chemically-Induced Alterations in Sexual and Functional Development: The Wildlife/Human Connection*. Princeton, NJ: Princeton Scientific Publishing Co.
- Coleman MP, Esteve J, Dameiecki P, Arslan A & Renard H (1993) Trends in cancer incidence and mortality. IARC Scientific Publications No. 121. Lyon, France: International Agency for Research on Cancer.
- Colerangle JB & Roy D (1997) Profound effects of the weak environmental estrogen-like chemical, biphenol A on the growth of the mammary gland in Noble rats. *J Steroid Biochem Molec Biol*, 60:153-160.
- Collaer ML & Hines M (1995) Human behavioral sex differences: A role for gonadal hormones during early development. *Psychol Bull*, 118:55-107.
- Collier TK, Johnson LL, Stehr CM, Myers MS & Stein JE (1998) A comprehensive assessment of the impacts of contaminants on fish from an urban waterway. *Mar Environ Res*, 46:243-247.
- Collins WT & Capen CC (1980) Fine structural lesions and hormonal alterations in thyroid glands of perinatal rats exposed *in utero* and by milk to polychlorinated biphenyls. *Am J Pathol*, 99:125-142.
- Colon I, Caro D, Bourdony CJ & Rosario O (2000) Identification of phthalate esters in the serum of young Puerto Rican girls with premature breast development. *Environ Health Perspect*, 108:895-900.
- Colton T, Greenberg ER, Noller K, Resseguie L, Van Bennekorn C, Heeren T & Zhang Y (1993) Breast cancer in mothers prescribed diethylstilbestrol in pregnancy. Further follow-up. *JAMA*, 269:2069-2100.
- Congdon JD, Tinkle DW, Breitenbach GW & van Loben Sels RC (1983) Nesting ecology and hatching success in the turtle *Emydoidea blandingii*. *Herpetologica*, 39:417-429.
- Conn PM (1994) The molecular mechanism of gonadotropin hormone releasing hormone action in the pituitary. In: Knobil E & Neill JD, ed. *The Physiology of Reproduction*, Second Edition, New York, N.Y.: Raven Press, pp. 1815-1832.
- Conner K, Howell J, Chen I, Liu H, Berhane K, Sciarretta C, Safe S & Zacharewski T (1996) Failure of chloro-s-triazine derived compounds to induce estrogen receptor-mediated responses *in vivo* and *in vitro*. *Fundam Appl Toxicol*, 30:93-101.
- Conover MR & Hunt GLJ (1984a) Experimental evidence that

- female-female pairs in gulls result from a shortage of breeding males. *Condor*, 86:472-476.
- Conover MR & Hunt GLJ (1984b) Female-female pairing and sex ratios in gulls: An historical perspective. *Wilson Bull*, 96:619-625.
- Conover MR, Miller DE & Hunt GLJ (1979) Female-female pairs and other unusual reproductive associations in ring-billed and California gulls. *Auk*, 96:6-9.
- Convery M & Brawer JR (1991) Thecal and interstitial cells in polycystic ovaries (PCO) in the rat. *Anat Rec*, 231:324-332.
- Cook JC, Johnson L, O'Connor JC, Biegel L, Krams CH, Frame SR & Hurtt ME (1998) Effects of dietary 17 β -estradiol exposure on serum hormone concentrations and testicular parameters in male Crl:CD BR rats. *Toxicol Sci*, 44:155-168.
- Cook P, Zabel E & Peterson R (1997) The TCDD toxicity equivalence approach for characterizing risks for early life-stage mortality in trout. In: Rolland R, Gilbertson M & Peterson R, eds. *Chemically Induced Alterations in Functional Development and Reproduction in Fishes*. Pensacola, FL: SETAC Press, pp. 9-27.
- Cooke AS (1973) Shell thinning in avian eggs by environmental pollutants. *Environ Pollut*, 4:65-152.
- Cooke AS (1979a) Egg shell characteristics of gannets *Sula bassana*, shags *Phalacrocorax aristotelis* and great black-backed gulls *Larus marinus* exposed to DDE and other environmental pollutants. *Environ Pollut*, 19:47-64.
- Cooke AS (1979b) Changes in egg shell characteristics of the sparrow hawk *Accipiter-Nigus* and peregrine *Falco-peregrinus* associated with exposure to environmental pollutants during recent decades. *J Zool*, 187:245-264.
- Cooke AS, Bella A & Prest I (1976) Egg shell characteristics and evidence of shell breakage for grey herons *Ardea cinerea* exposed to environmental pollutants. *Environ Pollut*, 11:59-84.
- Cooke B, Hegstrom CD, Villeneuve LS & Breedlove SM (1998) Sexual differentiation of the vertebrate brain: Principles and mechanisms. *Front Neuroendocrinol*, 19:323-362.
- Cooke MA, Benn T, Betts D, Grime LP, Harrison J, Hayes A, Inskip H, Martin PA, Rushton L, Pugh-Williams S & Wilks MF (1999) Guidelines for the compilation of occupational health-related records to future epidemiological studies of chemical exposure. *Occup Med*, 49:439-442.
- Cooper MK, Porter J, Young K & Beachy PA (1998) Teratogen-mediated inhibition of target tissue response to Shh signalling. *Science*, 280:1603-1607.
- Cooper RL & Kavlock RJ (1997) Endocrine disruptors and reproductive development: A weight-of-evidence overview. *J Endocrinol*, 152:159-166.
- Cooper RL, Stoker TE, Goldman JM, Parrish MB & Tyrey L (1996) Effect of atrazine on ovarian function in the rat. *Reprod Toxicol*, 10(4):257-264.
- Corn PS (1999) Amphibian declines: Review of some current hypotheses. In: Sparling DW, Bishop CA & Linder G, eds. *Ecotoxicology of Amphibians and Reptiles*. Pensacola, FL: SETAC Press, pp. 663-696.
- Cosman F & Lindsay R (1999) Selective estrogen receptor modulators: Clinical spectrum. *Endocrinol Rev*, 20:418-434.
- Couch RM, Muller J, Perry YS & Winter JS (1987) Kinetic analysis of human adrenal steroidogenesis by ketoconazole. *J Clin Endocrinol Metab*, 65:551-554.
- Courval JM, DeHoog JV, Stein AD, Tay EM, He J, Humphrey HEB & Paneth N (1999) Sport-caught fish consumption and conception delay in licensed Michigan anglers. *Environ Res*, 80:S183-S188.
- Crain DA & Guillette LJ Jr (1998) Reptiles as models of contaminant-induced endocrine disruption. *Anim Reprod Sci*, 53(1-4):77-86.
- Crain DA, Guillette LJ Jr, Rooney AA & Pickford DB (1997) Alterations in steroidogenesis in alligators (*Alligator mississippiensis*) exposed naturally and experimentally to environmental contaminants. *Environ Health Perspect*, 105(5):528-533.
- Crain DA, Guillette LJ Jr, Pickford DB, Percival HF & Woodward AR (1998a) Sex-steroid and thyroid hormone concentrations in juvenile alligators (*Alligator mississippiensis*) from contaminated and reference lakes in Florida, USA. *Environ Toxicol Chem*, 17:446-452.
- Crain DA, Noriega N, Vonier PM, Arnold SF, McLachlan JA & Guillette LJ Jr (1998b) Cellular bioavailability of natural hormones and environmental contaminants as a function of serum and cytosolic binding factors. *Toxicol Ind Health*, 14(1-2):261-273.
- Crews D & Bergeron JM (1994) Role of reductase and aromatase in sex determination in the red-eared slider (*Trachemys scripta*), a turtle with temperature-dependent sex determination. *J Endocrinol*, 143(2):279-289.
- Crews D, Bergeron JM & McLachlan JA (1995) The role of estrogen in turtle sex determination and the effect of PCBs. *Environ Health Perspect*, 103(Suppl 7):73-77.
- Crisp TM, Clegg ED, Cooper RL, Wood WP, Anderson DG, Baetcke KP, Hoffmann JL, Morrow MS, Rodier DJ, Schaeffer JE, Touart LW, Zeeman MG & Patel YM (1998) Environmental endocrine disruption: an effects assessment and analysis. *Environ Health Perspect*, 106(Suppl 1):11-56.
- Crosby D (1998) *Environmental Toxicology and Chemistry*, Oxford, U.K., Oxford University Press.
- Crowley WF Jr (1999) Towards multifactorial hypothalamic regulation of anterior pituitary hormone secretion. *New Physiol Sci*, 14:54-58.
- Crowley WF Jr, Whitcomb RW, Jameson JL, Weiss J, Finkelstein JS & O'Dea LS (1991) Neuroendocrine control of human reproduction in the male. *Rec Progr Hormone Res*, 47:27-67.
- Csapo AL, Pulkkinen MO & Wiest WG (1976) Effects of lutectomy and progesterone replacement therapy in early pregnant patients. *Am J Obstet Gynecol*, 115:759.
- Cummings AM (1993) Replacement of estrogen by methoxychlor in the artificially-induced decidual cell response in the rat. *Life Sci*, 52:347-352.
- Cummings AM, Hedge JL & Laskey J (1997) Ketoconazole impairs early pregnancy and the decidual cell response via alterations in ovarian function. *Fundam Appl Toxicol*, 40:238-246.
- Cummings AM, Hedge JM & Birnbaum L (1999) Effect of prenatal exposure to TCDD on the promotion of endometriotic lesion growth by TCDD in adult female rats and mice. *Toxicol Sci*, 52:45-49.
- Curtis KM, Savitz DA, Weinberg CR & Arbuckle TE (1999) The effect of pesticide exposure on time to pregnancy. *Epidemiol*, 10:112-117.
- Cymborowski B (1992) *Insect Endocrinology*. Amsterdam, The

- Netherlands: Elsevier Publishers.
- Czyglik F, Mayaux MJ, Guihard Moscato ML, David G & Schwartz D (1986) Lower sperm characteristics in 36 brothers of infertile men, compared with 545 controls. *Fertil Steril*, 45:255-258.
- Danish Ministry of Health (2001) Hormones and Endocrine Disruptors in Food and Water. Andersson A, Grigor KM, RapijertdeMeys J, Leffers H & Skakkebaek NE, eds. *Acta Pathol Microbiol Immunol Scand*, 109(Suppl 3):S1-S568.
- Danzo BJ (1997) Environmental xenobiotics may disrupt normal endocrine function by interfering with the binding of physiological ligands to steroid receptors and binding proteins. *Environ Health Perspect*, 105:294-301.
- Darlington DN & Dallman MF (1995) Feedback control in endocrine systems. In: Becker KL, ed. *Principles and Practice of Endocrinology and Metabolism*, Second Edition. Philadelphia, PA: Lippincott.
- Darnerud PO, Atuma SS, Aune M, Becker W, Petersson-Greavé K & Wicklund Glynn A (2000) Sakrapport miljöövervakningen: Organiska miljökontaminanter i svenska livsmedel, Livsmedelsverket.
- Darvas B, Polgár L, Tag El-Din MH, Eross K & Wing KD (1992) Developmental disturbances in different insect orders caused by an ecdysteroid agonist, RH 5849. *J Econ Entomol*, 85:2107-2112.
- Das PC, McElroy WK & Cooper RL (2000) Differential modulation of catecholamines by chlorotriazine herbicides in pheochromocytoma (PC12) cells *in vitro*. *Toxicol Sci*, 56(2):324-331.
- Das S & Thomas P (1999) Pesticides interfere with the nongenomic action of a progestogen on meiotic maturation by binding to its plasma membrane receptor on fish oocytes. *Endocrinology* 140(4):1953-1956.
- Daughton CG & Ternes TA (1999) Pharmaceuticals and personal care products in the environment: Agents of subtle change? *Environ Health Perspect*, 107(Suppl 6):907-938.
- Davis KB, Morrison J & Galvez JL (2000) Reproductive characteristics of adult channel fish treated with trenbolone acetate during the phenocritical period of sex differentiation. *Aquacult*, 189:351-360.
- Davis DL, Gottlieb MB & Stampnitzky JR (1998) Reduced ratio of male to female births in several industrial countries: A sentinel health indicator? *JAMA*, 279:1018-1023.
- de Boer J, de Boer K & Boon JP (2000) Polybrominated biphenyls and diphenylethers. In: Paasivirta J, ed. *New Types of Persistent Halogenated Compounds*, 3. Berlin, Springer-Verlag, pp. 61-95.
- de Cock J, Heederik D, Tielmans E, te Velde E & van Kooij R (1995) Offspring sex ratio as an indicator of reproductive hazards associated with pesticides. *Occup Environ Med*, 52:429-430.
- De Guise S, Lagace A & Béland P (1994) True hermaphroditism in a St. Lawrence beluga whale (*Delphinapterus leucas*). *J Wildl Dis*, 30:287-290.
- De Heer C, Schuurman HJ, Liem D, Penninks A, Vos JG & Van Loveren H (1995) Toxicity of tetrachlorodibenzo-*p*-dioxin (TCDD) to the human thymus after implantation in SCID mice. *Toxicol Appl Pharmacol*, 134:296-304.
- De Kloet ER, Vrijugdenhk E, Oitl MS & Joels M (1998) Brain corticosteroid receptor balance in health and disease. *Endocrine Revs*, 19:269-301.
- De Kloet, Rosenfeld P, Van Eekelen AM, Sutano W & Levine S (1988) Stress, glucocorticoids and development. *Prog Brain Res*, 73:101-120.
- De Kock AC, Best PB, Cockcroft V & Bosma C (1994) Persistent organochlorine residues in small cetaceans from the east and west coasts of southern Africa. *Sci Total Environ*, 154:153-162.
- de March BGE, de Wit CA & Muir DCG (1998) Persistent organic pollutants. In: *Assessment Report: Arctic Pollution Issues*. Oslo: Arctic Monitoring and Assessment Programme (AMAP), pp. 183-371.
- De Mouzon J, Thonneau P, Spira A & Multigner L (1996) Declining sperm count. Semen quality has declined among men born in France since 1950. *Brit Med J*, 313:43-45.
- de Solla SR, Bishop CA, Van Der Kraak G & Brooks RJ (1998) Impact of organochlorine contamination on levels of sex hormones and external morphology of common snapping turtles (*Chelydra serpentina serpentina*) in Ontario, Canada. *Environ Health Perspect*, 106(5):253-260.
- De Vault DS, Willford WA, Hesselberg RJ, Nortrupt DA, Rundberg EGS, Alwan AK & Bautista C (1986) Contaminant trends in lake trout (*Salvelinus namaycush*) from the upper Great Lakes. *Arch Environ Contam Toxicol*, 15:349-356.
- DeVito MJ, Thomas T, Martin E, Umbreit TH & Gallo MA (1992) Antiestrogenic action of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin: Tissue-specific regulation of estrogen receptor in CD1 mice. *Toxicol Appl Pharmacol*, 113:284-292.
- De Waal EJ, Schuurman HJ, Van Loveren H & Vos JG (1997) Differential effects of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin, bis(tri-*n*-butyltin) oxide and cyclosporine on thymus histophysiology. *Crit Rev Toxicol*, 27:381-430.
- de Wit CA, Järnberg UG, Asplund LT, Jansson B, Olsson M, Odsjö T, Lindstedt IL, Andersson Ö, Bergek S, Hjelt M, Rappe C, Jansson A & Nygren M (1994) The Swedish dioxin survey: Summary of results from PCDD/F and coplanar PCB analyses in biota. *Organohalogen Compounds*, 20:47-50.
- de Wit CA (1999) Swedish Environmental Monitoring Program (unpublished).
- DeFur PI, Crane M, Ingersall CG, Tattersfield L, eds. (1999) *Endocrine Disruption in Invertebrates: Endocrinology, Testing, and Assessment*. Society of Environmental Toxicology and Chemistry (SETAC). Pensacola, FL: SETAC Press.
- Dello Iacova R, Celentano E, Strollo AM, Iazzetta G, Capasso I & Randazzo G (1999) Organochlorines and breast cancer. A study on Neapolitan women. *Adv Exp Med Biol*, 472:57-66.
- DeLong RL, Gilmartin WG & Simpson JG (1973) Premature births in Californian sealions: association with high organochlorine pollutant residue levels. *Science*, 181:1168-1170.
- De Swart RL, de Ross PS, Vedder LJ, Timmerman HH, van Loveren H, Vos LG, Reijnders PJH & Osterhaus ADME (1994) Impairment of immune functions in harbour seals (*Phoca vitulina*) feeding on fish from polluted coastal waters. *Ambio*, 23:155-159.
- Demers A, Ayotte P, Brisson J, Dodin S, Robert J & Dewally E (2000) Risk and aggressiveness of breast cancer in relation to plasma organochlorine concentrations. *Cancer Epidemiol Biomark Prev*, 9:161-166.
- Denison MS, Fisher JM & Whitlock JP Jr (1989) Protein-DNA interactions at recognition sites for the dioxin-Ah receptor complex. *J Biol Chem*, 264:16478-16482.
- Denton TE, Howell WM, Allison JJ, McCollum J & Marks B (1985) Masculinization of female mosquitofish by exposure to plant sterols and *Mycobacterium smegmatis*. *Bull Environ Contam Toxicol*, 35:627-632.
- Denver RJ (1997) Proximate mechanisms of phenotypic plasticity

- in amphibian metamorphosis. *Am Zool*, 37:172-184.
- Depledge MH (1998) The ecotoxicological significance of genotoxicity in marine invertebrates. *Mutat Res*, 399(1):109-122.
- Desbrow C, Routledge EJ, Brighty GC & Waldock M (1998) Identification of estrogenic chemicals in STW effluent. 1: Chemical fractionation and *in vitro* biological screening. *Environ Sci Technol*, 32:1549-1558.
- Desvages G & Pieau C (1992) Aromatase activity in gonads of turtle embryos as a function of the incubation temperature of the egg. *J Steroid Metabol Biochem Mol Biol*, 41:851-853.
- Desvages G, Girondot M & Pieau C (1993) Sensitive stages for the effects of temperature on gonadal aromatase activity in embryos of the marine turtle *Dermochelys coriacea*. *Gen Comp Endocrinol*, 92(1):54-61.
- DeWailly E, Dodin S, Verreault R, Ayotte P & Morin J (1994) High organochlorine body burden in women with estrogen receptor-positive breast cancer. *J Natl Cancer Inst*, 86:232-234.
- DeWailly E, Ayotte P, Laliberté C, Weber J-P, Gingras S & Nantel AJ (1996) Polychlorinated biphenyl (PCB) and dichlorodiphenyl dichloroethylene (DDE) concentrations in the breast milk of women in Quebec. *Am J Publ Health*, 86:1241-1246.
- Dickman M & Rygiel G (1996) Chironomid larval deformity frequencies, mortality and diversity in heavy-metal contaminated sediments of a Canadian riverine wetland. *Environ Int*, 22:693-703.
- Dickhoff W, Brown CL, Sullivan CV & Bern HA (1990) Fish and amphibian models for developmental endocrinology. *J Exp Zool*, 12(Suppl 4):90-97.
- Dietz R, Heide-Jørgensen MP & Härkönen T (1989) Mass deaths of harbour seals (*Phoca vitulina*) in Europe. *Ambio*, 18:258-264.
- Dinan L, Bourne PC, Meng Y, Sarker SD, Tolentino RB, Whiting P (2001a) Assessment of natural products in the *Drosophila melanogaster* B11 cell bioassay for ecdysteroid agonist and antagonist activities. *Cell Mol Life Sci*, 58:321-342.
- Dinan L, Bourne P, Whiting P, Dhadialla TS, Hutchinson TH (2001b) Screening of environmental contaminants for ecdysteroid agonist and antagonist activity using the *Drosophila melanogaster* B11 cell *in vitro* assay. *Environ Toxicol Chem*, 20:2038-2046.
- Dodds EC & Lawson W (1938) Molecular structure in relations to oestrogenic activity. Compounds without a phenanthrene nucleus. *Proc Royal Soc Lond*, 125:222-232.
- Dodds L & Armson BA (1997) Is Canada's sex ratio in decline? *Can Med Assoc J*, 156:46-48.
- Dodge JA (1998) Natural and anthropogenic environmental oestrogens: The scientific basis for risk assessment. Structure/activity relationships. *Pure Appl Chem*, 70:1725-1733.
- Dodson SI, Merritt CM, Shanrahan JP & Shults CM (1991a) Low exposure concentrations of atrazine increase male production in *Daphnia pulex*. *Environ Toxicol Chem*, 18:1568-1573.
- Dodson S, Merritt C, Torrentera L, Winter K, Tornehl C & Girvin K (1999b) Dieldrin reduces male production and sex ratio in *Daphnia galeata mendotae*. *Toxicol Ind Health*, 15:192-199.
- Dohler KD (1991) Pre- and postnatal influence of hormones and neurotransmitters on sexual differentiation of the mammalian hypothalamus. *Int Rev Cytol*, 131:1-57.
- Dolk H (1998) Rise in prevalence of hypospadias. *Lancet*, 351:770.
- Dong L, Ma Q & Whitlock JP Jr (1996) DNA binding by the heterodimeric Ah receptor, relationship to dioxin induced CYP1A1 transcription *in vivo*. *J Biol Chem*, 271:7942-7948.
- Dorgan JF, Brock JW, Rothman N, Needham LL, Miller R, Stephenson HE Jr, Schussler N & Taylor PR (1999) Serum organochlorine pesticides and PCBs and breast cancer risk: Results from a prospective analysis (USA). *Cancer Causes Control*, 10:1-11.
- Dougherty RC, Whitaker MJ, Smith LM, Stalling DL & Kuehl DW (1980) Negative chemical ionization studied of human and food chain contamination with xenobiotic chemicals. *Environ Health Perspect*, 36:103-117.
- Drost CA & Fellers GA (1996) Collapse of a regional frog fauna in the Yosemite area of the California Sierra Nevada, USA. *Conservation Biol*, 10:414-425.
- Dube MG & MacLachy DL (2000) Endocrine responses of *Fundulus heteroclitus* to effluent from a bleached-Kraft pulp mill before and after installation of reverse osmosis treatment of a waste stream. *Environ Toxicol Chem*, 19:2788-2796.
- Dunaif A (1997) Insulin resistance and the polycystic ovary syndrome: Mechanism and implications for pathogenesis. *Endocrinol Rev*, 18:774-800.
- Eastin WC Jr & Spaziani E (1978) On the mechanism of calcium secretions in the avian shell gland (uterus). *Biol Reprod*, 19:505-518.
- ECETOC (1996) Environmental oestrogens: a compendium of test methods. ECETOC Document 33. Brussels. European Centre for Ecotoxicology and Toxicology of Chemicals.
- Ekbom A, Wicklund-Glynn A & Adami HO (1996) DDT and testicular cancer. *Lancet*, 347:553-554.
- Ekelund R, Bergman A, Granmo A & Berggren M (1990) Bioaccumulation of 4-nonylphenol in marine animals—a reevaluation. *Environ Pollut*, 64:107-120.
- El Dareer SM, Kalin JR, Tillery KF & Hill DL (1987) Disposition of decabromobiphenyl ether in rats dosed intravenously or by feeding. *Toxicol Environ Health*, 22:405-415.
- Eldridge JC, Fleenor-Heyser DG, Extram PC, Wetzel LT, Breckenridge CB, Gillis JH, Luempert LG III & Stevens JT (1994) Short-term effects of chlortriazines on estrous in female Sprague-Dawley and Fischer 344 rats. *J Toxicol Environ Health*, 43:155-167.
- Ellerichmann T, Bergman Å, Franke S, Jakobsson E, Jakobsson E, König WA & Larsson C (1998) Gas chromatographic enantiomer separations of chiral PCB methyl sulfones and identification of selectively retained enantiomers in human liver. *Fresenius Environ Bull*, 7:244-257.
- Elliott JE, Norstrom RJ & Keith JA (1988) Organochlorines and eggshell thinning in northern gannets (*Sula bassanus*) from eastern Canada. *Environ Pollut*, 52:81-102.
- Elo O, Vuolojathi P, Janhunen H & Rantanen J (1985) Recent PCB accidents in Finland. *Environ Health Perspect*, 60:315-319.
- Elsby R, Maggs JL, Ashby J, Paton D, Sumpter JP, Park BK (2001) Assessment of the effects of metabolism on the estrogenic activity of xenoestrogens: A two stage approach coupling human liver microsomes and a yeast estrogenicity assay. *Pharmacology and Experimental Therapeutics*, 296(2):329-337.
- Ema M, Itami T & Kawasaki H (1992) Effect of period of exposure on the developmental toxicity of BBP in rats. *J Appl Toxicol*, 12:57-61.
- Ema M, Amano H, Itami T & Kawasaki H (1993) Teratogenic

- evaluation of di-*n*-butyl phthalate in rats. *Toxicol Lett*, 69:197-203.
- Ema M, Amano H & Ogawa Y (1994) Characterization of the developmental toxicity of di-*n*-butyl phthalate in rats. *Toxicol*, 86:163-174.
- Emmett EA, Maroni M, Schmith JM, Levin BK & Jefferys J (1988) Studies of transformer repair workers exposed to PCBs. I: Study design, PCB concentrations, questionnaire, and clinical examination results. *Am J Ind Med*, 13:415-427.
- Erickson GF & Schreiber JR (1995) Morphology and physiology of the ovary. In: Becker KL, ed. *Principles and Practice of Endocrinology and Metabolism*, Second Edition. Philadelphia, PA: Lippincott.
- Etchberger CR, Ewert MA, Philips JB, Nelson CE & Prange HD (1992) Physiological responses to carbon dioxide in embryonic redeared slider turtles, *Trachemys scripta*. *J Exp Zool*, 264:1-10.
- European Commission (1996) European workshop on the impact of endocrine disruptors on human health and wildlife. Weybridge, UK, Report No. EUR 17549, Environment and Climate Research Programme, DG XXI. Brussels, Belgium: European Commission.
- Evans JJ (1999) Modulation of gonadotropin levels by peptides acting at the anterior pituitary gland. *Endocrinol Revs*, 20:46-67.
- Evans RG, Webb KB, Knutsen AP, Roodman ST, Roberts DW, Bagby JR, Garrett WA & Andrews JS (1988) A medical follow-up of the health effects of long-term exposure to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. *Arch Environ Health*, 43:273-278.
- Facemire CF, Gross TS & Guillette LJJ (1995) Reproductive impairment in the Florida panther: Nature or nurture? *Environ Health Perspect*, 103:79-86.
- Fairchild WL, Swansburg EO, Arsenault JT & Brown SB (1999) Does an association between pesticide use and subsequent declines in catch of Atlantic salmon (*Salmo salar*) represent a case of endocrine disruption? *Environ Health Perspect*, 107:349-357.
- Falck F, Ricci A, Wolff MS, Godbold J & Deckers P (1992) Pesticides and polychlorinated biphenyl residues in human breast lipids and their relation to breast cancer. *Arch Environ Health*, 47:143-146.
- Fängström B, Athanasiadou M, Grandjean P, Weihe P & Bergman Å (2002) Hydroxylated PBC metabolites in serum from pregnant Faroese women. *Environ Health Perspect* (In press).
- FAO/WHO (1995) Application of Risk analysis to Food Standard Issues. Document WHO/FSF/97.5. Geneva, Switzerland: World Health Organization.
- Fara GM (1999) The ICMESA accident: First intervention for the protection of man and environment. In: Ballarin-Denti A, Bertazzi PA, Facchetti S, Fanelli R & Mocalelli P, eds. *Chemistry, Man and Environment*. Amsterdam: Elsevier Science, pp. 3-16.
- Fara GM, Del Corvo G, Bernuzzi S, Bigatello A, Di Pietro C, Scaglioni S & Chiumello G (1979) Epidemic of breast enlargement in an Italian school. *Lancet*, 2(8137):295-297.
- Farrow S (1994) Falling sperm quality: Fact or fiction? *Brit Med J*, 309:1-2.
- Favreau LV & Pickett CB (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*, 266:4556-4561.
- Feinberg JS & Kelley CR (1998) Pregnant workers. A physician's guide to assessing safe employment. *West J Med*, 68:86-92.
- Feitosa MF & Krieger H (1992) Demography of the human sex ratio in some Latin American countries, 1967-1986. *Hum Biol*, 64:523-530.
- Feitosa MF & Krieger H (1993) Some factors affecting the secondary sex ratio in a Latin American sample. *Hum Biol*, 65:273-278.
- Fingerhut MA, Halperin WE, Marlow DA, Piacitelli LA, Honchar PA, Sweeney MH, Steenland K & Suruda AJ (1991) Cancer mortality in workers exposed to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. *New Engl J Med*, 324(4):212-218.
- Fisch H & Goluboff ET (1996) Geographic variation in sperm counts: A potential cause of bias in studies of semen quality. *Fertil Steril*, 65:1044-1046.
- Fisch H, Goluboff ET, Olson JH, Feldshuh J, Broder SJ & Barad DH (1996) Semen analysis in men from the United states over a 25-year period: No decline in quality. *Fertil Steril*, 65:1009-1014.
- Fitch MA & Shugart GW (1983) Comparative biology and behavior of monogamous pairs and one male-two female trios of herring gulls. *Behav Ecol Sociobiol*, 14:1-7.
- Flammarion P, Brion F, Babut M, Garrie J, Migeon B, Noury P, Thybaud E, Tyler CR & Palazzi X (2000) Induction of fish vitellogenin and alterations in testicular structure: Preliminary results of estrogenic effects in chub (*Leuciscus cephalus*). *Ecotoxicol*, 9:127-135.
- Fleming A & Crews D (2001) Estradiol and incubation temperature modulate regulation of steroidogenic factor 1 in the developing gonad of the red-eared slider turtle. *Endocrinol*, 142:1403-1411.
- Folmar LC, Denslow ND, Rao V, Chow M, Crain DA, Enblom J, Marcino J & Guillette LJ (1996) Vitellogenin induction and reduced serum testosterone concentrations in feral male carp (*Cyprinus carpio*) captured near a major metropolitan sewage treatment plant. *Environ Health Perspect*, 104:1096-1101.
- Fong WG (1999) Regulatory aspects: Pesticide registration, risk assessment and tolerance, residue analysis, and monitoring. In: Fong WG, Moye HA, Seiber JN & Toth JP, eds. *Pesticide Residues in Foods: Methods, Techniques, and Regulations*. New York: Wiley Interscience, pp. 249-304.
- Ford CD, Johnson GH & Smith WG (1983) Natural killer cells in *in utero* diethylstilbestrol-exposed patients. *Gynecol Oncol*, 16:400-404.
- Forsythe JA, Jiang BH, Iyer NV, Agani F, Leung SW, Koos RD & Semenza GL (1996) Activation of vascular endothelial growth factor gene transcription by hypoxia-inducible factor 1. *Mol Cell Biol*, 16:4604-4613.
- Foster WG, McMahon A, Younglai EV, Jarrell JF & Lecavalier P (1995) Alterations in circulating ovarian steroids in hexachlorobenzene-exposed monkeys. *Reprod Toxicol*, 9:541-548.
- Foster WG, Desaulniers D, Leingartner K, Wade MG, Poon R & Chu I (1999) Reproductive effects of tris(4-chlorophenyl)methanol in the rat. *Chemosphere*, 39(5):709-724.
- Fox G (1993) What have biomarkers told us about the effects of contaminants on the health of fish-eating birds in the Great Lakes? The theory and literature review. *J Great Lakes Res*, 19:722-736.
- Fox G, Collins B, Hayakawa E, Weseloh D, Ludwig J, Kubiak T & Erdman T (1991) Reproductive outcomes in colonial fish-eating water birds: A biomarker for developmental toxicants in Great Lakes food chains. II: Spatial variation in the occurrence and prevalence

- of bill defects in young double-crested cormorants in the Great Lakes, 1979-1987. *J Great Lakes Res*, 17:158-167.
- Fox G, Gilman A, Peakall D & Anderka F (1978) Behavioral abnormalities of nesting Lake Ontario herring gulls. *J Wildl Manage*, 42:477-483.
- Fox GA (1991) Practical causal inference for ecoepidemiologists. *J Toxicol Environ Health*, 33:359-373.
- Fox GA (1992) Epidemiological and pathobiological evidence of contaminant-induced alterations in sexual development in free-living wildlife. In: Colborn T & Clement C, eds. *Chemically-Induced Alterations in Sexual and Functional Development: The Wildlife/Human Connection*. Princeton, NJ: Princeton Scientific Publishing Co., pp. 147-158.
- Fox GA, Trudeau S, Won H & Grasman KA (1998) Monitoring the elimination of persistent toxic substances from the Great Lakes: Chemical and physiological evidence from adult herring gulls. *Environ Monit Assess*, 53:147-168.
- Francis D, Diorio J, LaPlante P, Weaver S, Seckl JR & Meaney MJ (1996) The role of early environmental events in regulating neuroendocrine development: Moms, pups, stress and glucocorticoid receptors. *Ann Natl Acad Sci*, 794:136-152.
- French FE & Bierman JM (1972) Probability of fetal mortality. *Pub Health Rep*, 77:835.
- Freni-Titulaer LW, Cordero JF, Haddock L, Lebron G, Martinez R & Mills JL (1986) Premature thelarche in Puerto Rico. A search for environmental factors. *Am J Dis Child*, 140:1263-1267.
- Friedman JM & Halaas JL (1998) Leptin and the regulation of body weight in mammals. *Nature*, 395:763-770.
- Fries GF & Paustenbach DJ (1999) Evaluation of potential transmission of 2,3,7,8-tetrachlorobenzo-*p*-dioxin-contaminated incinerator emissions to humans via food. *J Toxicol Environ Health*, 19:1-43.
- Fry DM & Toone CK (1981) DDT-induced feminization of gull embryos. *Science*, 213:922-924.
- Fry DM, Toone CK, Speich SM & Peard RJ (1987) Sex ratio skew and breeding patterns of gulls: Demographic and toxicological considerations. *Stud Avian Biol*, 10:26-43.
- Fujise Y, Zenati R & Kato H (1998) An examination of the Wstock hypothesis for North Pacific minke whales, with special reference to some biological parameters using data collected from JARPN surveys from 1994 to 1997. Paper SC/50/RMP12 presented to the IWC Scientific Committee, Oman, 1998. 14 pp.
- Funae Y & Imaoka S (1993) Cytochrome P450 in rodents. In: Schenkman JB & Greim H, eds. *Cytochrome P450*. Berlin: Springer-Verlag.
- Fuortes L, Clark MK, Kirchner HL & Smith EM (1997) Association between female infertility and agricultural work history. *Am J Ind Med*, 31:445-451.
- Furst P, Furst C & Wilmers K (1992). PCDDs and PCDFs in human milk—statistical evaluation of a 6-year survey. *Chemosphere*, 25:1029-1038.
- Furst P (2001) Organochlorine pesticides, dioxins, PCBs and polybrominated biphenylethers in human milk from Germany in the course of time. *Organohalogen Compounds*, 52:185-188.
- Gagnon MM, Dodson JJ, Hodson PV, Van Der Kraak GJ & Carey JH (1994) Seasonal effects of bleached Kraft mill effluent on reproductive parameters of white sucker (*Catostomus commersoni*) populations of the St. Maurice River, Quebec, Canada. *Can J Fish Aquat Sci*, 51:337-347.
- Gagnon MM, Bussieres D, Dodson JJ & Hodson PV (1995). White sucker (*Catostomus commersoni*) growth and sexual maturation in pulp mill contaminated and reference rivers. *Environ Toxicol Chem*, 14:317-327.
- Gaido KW, Maness SC, Leonard LS & Greenlee WF (1992) 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin-dependent regulation of transforming growth factor- α and β -2 in a human keratinocyte cell line involves both transcriptional and post-transcriptional control. *J Biol Chem*, 267:24591-24595.
- Gaido KW, Leonard LS, Maness SC, Hall JM, McDonnell DP, Saville B & Safe S (1999) Differential interaction of the methoxychlor metabolite 2,2-*bis*-(*p*-hydroxyphenyl)-1,1,1-trichloroethane with estrogen receptors α and β . *Endocrinol*, 140:5746-5753.
- Gaillard RC (1994) Neuroendocrine-immune system interactions: the immune-hypothalamo-pituitary-adrenal axis. *Trends Endocrinol Metab*, 5:303-309.
- Galanti MR, Sparen P, Carlsson A, Grimelius L & Ekblom A (1995) Is residence in areas of endemic goiter a risk factor for thyroid cancer? *Int J Cancer*, 61:615-621.
- Gallo MA, Hesse EJ, MacDonald GJ & Umbreit TH (1986) Interactive effects of estradiol and 2,3,7,8-tetrachlorodibenzo-*p*-dioxin on hepatic cytochrome P-450 and mouse uterus. *Toxicol Lett*, 32:123-132.
- Galton VA (1992) The role of thyroid hormones in amphibian metamorphosis. *Trends Endocrinol Metab*, 3:96-100.
- Galvez JL & Morrison JR (1996) Efficacy of trenbolone acetate in sex inversion of the blue tilapia (*Oreochromis aureus*). *J World Aquaculture Soc*, 27:483-486.
- Garcia-Rodriguez J, Garcia-Martin M, Nogueras-Ocana M, de Dios Luna-del-Castillo J, Espigares-Garcia M, Olea N & Lardelli-Claret P (1996) Exposure to pesticides and cryptorchidism: Geographical evidence of a possible association. *Environ Health Perspect*, 104:1090-1095.
- Garrison W, Schmitt D, Martens D & Kettrup A (1996) Enantiomer selectivity in the environmental degradation of dichlorprop as determined by high performance capillary electrophoresis. *Environ Sci Technol*, 30:2449-2455.
- Garry VF, Schreinemachers D, Harkins ME & Griffith J (1996) Pesticide applicers, biocides and birth defects in rural Minnesota. *Environ Health Perspect*, 104:394-399.
- Gerhard I & Runnebaum B (1992) Environmental pollutants and fertility disorders. Heavy metals and minerals. *Geburtshilfe Frauenheilkd*, 52(7):383-396.
- German Federal Environmental Agency (1996) *Endocrinically Active Chemicals in the Environment (Texte 3/96)*. Berlin: Umweltbundesamt.
- Ghosh S & Thomas P (1995) Antagonistic effects of xenobiotics on steroid-induced final maturation of Atlantic croaker oocytes *in vitro*. *Marine Environmental Research* 39:159-163.
- Gibbons JW & Semlitsch RD (1982) Survivorship and longevity of a long-lived vertebrate species: How long do turtles live? *J Anim Ecol*, 51:523-527.
- Gierthy JF, Lincoln DW, Kampeck SJ, Dickerman HW, Bradlow HL, Niwa T & Swaneck GE (1988). Enhancement of 2- and 16 α -estradiol hydroxylation in MCF-7 human breast cancer cells by 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. *Biochim Biophys Res Commun*, 157:515-520.

- Giesy JP & Snyder EM (1998) Xenobiotic modulation of endocrine function in fishes. In: Kendall RJ, Dickerson RL, Giesy JP & Suk WA, eds. Principles and Processes for Evaluating Endocrine Disruption in Wildlife. SETAC Technical Publication. Pensacola, FL: SETAC Press, pp. 155-237.
- Giesy JP, Ludwig JP & Tillitt DE (1994a) Dioxins, dibenzofurans, PCBs and colonial, fish-eating water birds. In: Schecter A, ed. Dioxin and Health. New York: Plenum Press, pp. 254-307.
- Giesy JP, Ludwig JP & Tillitt DE (1994b) Deformities in birds of the Great Lakes region. *Environ Sci Technol*, 28:128-135.
- Giesy JP, Verbrugge D, Othout R, Bowerman W, Mora M, Jones P, Newsted J, Bath A, Vandervoot C, Heaton S, Aulerich R, Bursisan S, Ludwig J, Ludwig M & Dawson G (1994a) Contaminants in fishes from Great Lakes-influenced sections and above dams on three Michigan Rivers. II: Implications for the health of mink. *Arch Environ Contam Toxicol*, 27:213-223.
- Giger W, Brunner PH, Schaffner C (1984) 4-nonylphenol in sewage sludge: Accumulation of toxic metabolites from nonionic surfactants. *Science*, 225:623-625.
- Giger W, Ahel M, Koch M, Laubscher HU, Schaffner C, Schneider J (1987) Behaviour of alkylphenol polyethoxylate surfactants and of nitrilotriacetate in sewage treatment. *Water Sci Technol*, 19:449-460.
- Gilbertson M (1983) Etiology of chick edema disease in herring gulls in the lower Great Lakes. *Chemosphere*, 12:357-370.
- Gilbertson M (1989) Effects on fish and wildlife populations. In: Kimbrough R & Jensen A, eds. Halogenated Biphenyls, Terphenyls, Naphthalenes, Dibenzodioxins and Related Products. Amsterdam: Elsevier Publishers B.V, pp.103-127.
- Gilbertson M & Fox G (1977) Pollutant-associated embryonic mortality of Great Lakes herring gulls. *Environ Pollut*, 12:211-216.
- Gilbertson M, Kubiak TJ, Ludwig JP & Fox G (1991) Great Lakes embryo mortality, edema, and deformities syndrome (GLEMEDS) in colonial fish-eating birds: Similarity to chick edema disease. *J Toxicol Environ Health*, 33:455-520.
- Gilman A, Peakall D, Hallett D, Fox G & Norstrom R (1979) Herring gulls (*Larus argentatus*) as monitors of contamination in the Great Lakes. In: Animals as Monitors of Environmental Pollution. Symposium on Pathobiology of Environmental Pollutants: Animal Models and Wildlife as Monitors. Storrs CT. pp. 280-289.
- Gilmartin WG, DeLong RL, Smith AW, Sweeney JC, de Lappe BW, Risebrough RW, Griner LA, Dailey MD & Peakall DB (1976) Premature parturition in the Californian sea lion. *J Wildl Diseases*, 12:104-115.
- Gimeno S (1997). The estrogenicity of alkylphenols in the aquatic environment. An approach for risk assessment using various lifestages of all male carp populations. Ph.D. Thesis, University of Utrecht, The Netherlands, 133 pp.
- Gimeno S, Gerritsen A, Bowmer T & Komen H (1996). Feminization of male carp. *Nature*, 384:221-222.
- Gimeno S, Komen H, Venderbosch PWM & Bowmer T (1997). Disruption of sexual differentiation in genetic male common carp (*Cyprinus carpio*) exposed to an alkylphenol during different life stages. *Environ Sci Technol*, 31:2884-2890.
- Gimeno S, Komen H, Gerritsen AGM & Bowmer T (1998a). Feminisation of young males of the common carp, *Cyprinus carpio*, exposed to 4-tert-pentylphenol during sexual differentiation. *Aquat Toxicol*, 43:77-92.
- Gimeno S, Komen H, Jobling S, Sumpter J & Bowmer T (1998b). Demasculinisation of sexually mature male common carp, *Cyprinus carpio*, exposed to 4-tert-pentylphenol during spermatogenesis. *Aquat Toxicol*, 43:93-109.
- Gingrich JR, Barrios RJ, Morton RA, Boyce BF, DeMayo FJ, Finegold, Angelopoulou R, Rosen & Greenberg NM (1996) Metastatic prostate cancer in transgenic mouse. *Cancer Res*, 56:4096-4102.
- Ginsburg J, Okolo S, Prelavic G & Hardiman P (1994) Residence in the London area and sperm density. *Lancet*, 343:230.
- Girard C, Brodeur J & Hontela A (1998). Responsiveness of the interrenal tissue of yellow perch (*Perca flavescens*) from contaminated sites to an ACTH challenge test *in vivo*. *Can J Fish Aquat Sci*, 55:438-450.
- Gladen BC & Rogan WJ (1995) DDE and shortened duration of lactation in a northern Mexican town. *Am J Public Health*, 85:504-508.
- Gladen BC, Rogan WJ & Rogan NB (1996) Preliminary results on prenatal and lactational exposure to PCBs and DDE and pubertal growth and development. In: Berg M, Brouwer A, Birnbaum L, eds. Dioxin '96. Organohalogen Compounds, 30:215-217.
- Gladen BC, Rogan WJ, Hardy P, Thullen J, Tingelstad J & Tully M (1988) Development after exposure to polychlorinated biphenyls and dichlorodiphenyl dichloroethene transplacentally and through human milk. *J Pediatr*, 113:991-995.
- Glöckner D, Gaevert K & Kleinstein J (1998) Declining sperm quality in men of childless couples. *Andrologia*, 30:55.
- Goldberg MA & Schneider TJ (1994) Similarities between the oxygen-sensing mechanisms regulating the expression of vascular endothelial growth factor and erythropoietin. *J Biol Chem*, 269:4355-4359.
- Golden RJ, Noller KL, Titus-Ernstoff L, Kaufman RH, Mittendorf R, Stillman R & Reese EA (1998). Environmental endocrine modulators and human health: An assessment of the biological evidence. *Crit Rev Toxicol*, 28:109-227.
- Goldey ES & Crofton KM (1998) Thyroxine replacement attenuates hypothyroxinemia, hearing loss, and motor deficits following developmental exposure to Aroclor 1254. *Toxicol Sci*, 45:94-105.
- Goldsmith JR (1997) Dibromochloropropane: Epidemiological findings and current questions. *Ann N Y Acad Sci*, 837:300-306.
- Goldsmith JR, Potashnik G & Israeli R (1984) Reproductive outcomes in families of DBCP-exposed men. *Arch Environ Health*, 39:85-89.
- Gonzalez RH (1999) Pesticide residues in developing countries-A review of residues detected in food exports from the developing world. In: Brooks GT & Roberts TR, eds. Pesticide Chemistry and Bioscience: The Food-Environment Challenge. Cambridge: Royal Society, pp. 386-401.
- Goodbred SL, Gilliom RJ, Gross TS, Denslow NP, Bryant WL & Schoeb TR (1997) Reconnaissance of 17 α -estradiol, 11-ketotestosterone, vitellogenin, and gonad histopathology in common carp of United States streams: potential for contaminant-induced endocrine disruption. Open-file Report 96-627, Sacramento, CA:U.S. Geological Survey, 47 pp.
- Gooding MP & LeBlanc GA (2001) Biotransformation and disposition of testosterone in the American mud snail, *Ilyanassa obsoleta*. *Gen Comp Endocrinol* 122:172-180.

- Gorbman A, Nozaki M & Kubokawa K (1999) A brain-Hatschek's pit connection in amphioxus. *Gen Comp Endocrinol* 113(2):251-254.
- Gorski RA (1996) Androgens and sexual differentiation of the brain. In: Bhasin A, ed. *Pharmacology, Biology and Clinical Applications of Androgens*. New York:Wiley-Liss, pp. 159-168.
- Gould JC, Leonard LS, Maness SC, Wagner BL, Conner K, Zacharewski T, Safe S, McDonnell DP & Gaido KW (1998) Bisphenol A interacts with the estrogen receptor alpha in a distinct manner from estradiol. *Mol Cell Endocrinol*, 25(142):203-214.
- Gould RW (1972) Brown pelican eggshells: X-ray diffraction studies. *Bull Environ Contam Toxicol*, 8:84-88.
- Goy RW (1978) Sexual compatibility in rhesus monkeys: predicting sexual performance of oppositely sexed pairs of adults. *Ciba Foundation Symp*. Mar 14-16, 62:227-255.
- Granmo A, Ekelund R, Berggren M, Magnusson K (1991) Toxicity of 4-nonylphenol to aquatic organisms and potential for bioaccumulation. In: *Proceedings of a Seminar on Nonylphenolethoxylates (NPE) and Nonylphenol (NP)*. Stockholm, Ingvar Bingham, pp. 53-75.
- Grasman K, Scanlon P & Fox G (1998) Reproductive and physiological effects of environmental contaminants in fish-eating birds of the Great Lakes: a review of historical trends. *Environ Monit Assess*, 53:117-145.
- Grau EG & Weber GM (1998) Prolactin in non-mammalian vertebrates. In: Knobil E & Neill JD, eds. *Encyclopedia of Reproduction*, 4:51-59. Raven Press, New York, N.Y.
- Gray TJB & Butterworth KR (1980) Testicular atrophy produced by phthalate esters. *Arch Toxicol*, 1(Supp. 4):452-455.
- Gray LE Jr, Ostby JS, Ferrell JM, Sigmon E & Goldman JM (1988) Methoxychlor induces estrogen-like alterations of behavior and the reproductive tract in the female rat and hamster: Effects on sex behavior, running wheel activity and uterine morphology. *Toxicol Appl Pharmacol*, 96:525-540.
- Gray LE Jr, Ostby JS, Ferrell J, Rehnberg G, Linder R, Cooper R, Goldman J, Slott V & Laskey J (1989) A dose-response analysis of methoxychlor-induced alterations of reproductive development and function in the rat. *Fundam Appl Toxicol*, 12:92-108.
- Gray LE Jr, Ostby JS & Marshall R (1993) The fungicide vinclozolin inhibits morphological sex differentiation in the male rat. *Biol Reprod*, 48(Suppl 1):97.
- Gray LE Jr, Ostby JS & Kelce WR (1994) Developmental effects of an environmental antiandrogen: The fungicide vinclozolin alters sex differentiation of the male rats. *Toxicol Appl Pharmacol*, 129:46-52.
- Gray LE Jr, Kelce WR, Monosson E, Ostby JS & Birnbaum LS (1995a) Exposure to TCDD during development permanently alters reproductive function in male LE rats and hamsters: Reduced ejaculated and epididymal sperm numbers and sex accessory gland weights in offspring with normal androgenic status. *Toxicol Appl Pharmacol*, 131:108-118.
- Gray LE Jr, Ostby JS, Wolf C, Miller DB, Kelce WR, Gordon CJ & Birnbaum LS (1995b) 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 Compounds*, 25:33-38.
- Gray MA & Metcalfe CD (1997). Induction of testis-ova in Japanese medaka (*Oryzias latipes*) exposed to *p*-nonylphenol. *Environ Toxicol Chem*, 16:1082-1086.
- Gray LE Jr, Ostby JS & Kelce WR (1997a) A dose-response analysis of the reproductive effects of a single gestational dose of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD) in male Long Evans hooded rat offspring. *Toxicol Appl Pharmacol*, 146:11-20.
- Gray LE Jr, Wolf C, Mann P & Ostby JS (1997b) *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*, 146:237-244.
- Gray LE Jr & Ostby JS (1998) Effects of pesticides and toxic substances on behavioral and morphological reproductive development: endocrine versus nonendocrine mechanisms. *Toxicol Ind Health*, 14:159-84.
- Gray LE Jr, Wolf C, Lambricht C, Mann P, Price M, Cooper R & Ostby JS (1999a). Administration of the potentially antiandrogenic pesticides (procymidone, linuron, iprodione, chlozolinate, *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*, 15:94-118.
- Gray LE Jr, Ostby J, Monosson E & Kelce WR (1999b) Environmental antiandrogens: low doses of the fungicide vinclozolin alter sexual differentiation of the male rat. *Toxicol Ind Health*, 15:48-64.
- Gray LE Jr, Ostby J, Cooper RL & Kelce WR (1999c) The estrogenic and antiandrogenic pesticide methoxychlor alters the reproductive tract and behavior without affecting pituitary size or LH and prolactin secretion in male rats. *Toxicol Ind Health*, 15:37-47.
- Gray LE Jr, Ostby JS, Furr J, Price M, Veeramachaneni DN & Parks L (2000) Perinatal exposure to the phthalates DEHP, BBP and DINP, but not DEP, DMP or DOTP, alters sexual differentiation of the male rat. *Toxicol Sci*, 58(2):350-365.
- Grayhach JT (1965) Effect of testosterone-estradiol administration on citric acid and fructose content of the rat prostate. *Endocrinol*, 77:1068-1074.
- Grayhach JT & Lebowitz JM (1967) Effect of prolactin on citric acid of lateral lobe of prostate of Sprague-Dawley rat. *Invest Urol*, 5:87-94.
- Green DM, ed (1997a) *Amphibians in Decline*. Canadian Studies of a Global Problem. Herpetological Conservation Vol. 1. Society for the Study of Amphibians and Reptiles, St. Louis, MO. 306 pp.
- Green DM (1997b) Perspectives on amphibian population declines: Defining the problem and looking for answers. In: Green DM, ed. *Amphibians in Decline*. Canadian Studies of a Global Problem. Herpetological Conservation Vol. 1. Society for the Study of Amphibians and Reptiles, St. Louis, MO., pp. 291-308.
- Gribble GW (2000) The natural production of organobromine compounds. *Environ Sci Pollut Res*, 7:37-49.
- Grocock CA, Charlton HM & Pike MC (1988) Role of the fetal pituitary in cryptorchidism induced by exogenous maternal oestrogen during pregnancy in mice. *J Reprod Fertil*, 83:295-300.
- Grubbs CJ, Farnell DR, Hill DL & McDonough KC (1985) Chemoprevention of *N*-nitroso-*N*-methylurea induced mammary cancers by 17-beta estradiol and progesterone. *J Natl Cancer Inst*, 74:927-931.
- Guarnaccia MM & Olive DL (1998) Diagnosis and management of endometriosis. Chapter 32. In: Carr BR & Blackwell RE, eds. *Textbook of Reproductive Medicine*. Stamford, CT: Appleton &

- Lange, pp. 112-131.
- Guernsey DL & Fisher PB (1990) Thyroid hormone and neoplastic transformation. *Crit Rev Oncog*, 1:389-408.
- Guillemain K & Krasnow MA (1997) The hypoxic response: Huffing and HIFing. *Cell*, 89:9-12.
- Guillette LJ Jr, Norris DO & Norman MF (1985) Response of amphibian (*Ambystoma tigrinum*) oviduct to arginine vasotocin acetylcholine *in vitro*: influence of steroid hormone pretreatment *in vivo*. *Comp Biochem Physiol C*, 80:151-154.
- Guillette LJ Jr, Gross TS, Masson GR, Matter JM, Percival HF & Woodward AR (1994) Developmental abnormalities of the gonad and abnormal sex hormone concentrations in juvenile alligators from contaminated and control lakes in Florida. *Environ Health Perspect*, 102(8):680-688.
- Guillette LJ Jr, Gross TS, Gross DA, Rooney AA & Percival HF (1995) Gonadal steroidogenesis *in vitro* from juvenile alligators obtained from contaminated or control lakes. *Environ Health Perspect*, 103(Suppl 4):31-36.
- Guillette LJ Jr, Pickford DB, Crain DA, Rooney AA & Percival HF (1996) Reduction in penis size and plasma testosterone concentrations in juvenile alligators living in a contaminated environment. *Gen Comp Endocrinol*, 101(1):32-42.
- Guillette LJ Jr, Brock JW, Rooney AA & Woodward AR (1999a) Serum concentrations of various environmental contaminants and their relationship to sex steroid concentrations and phallus size in juvenile american alligators. *Arch Environ Contam Toxicol*, 36(4):447-455.
- Guillette LJ Jr, Woodward AR, Crain DA, Pickford AA, Rooney AA & Percival HF (1999b) Plasma steroid concentrations and male phallus size in juvenile alligators from seven Florida lakes. *Gen Comp Endocrinol*, 116:256-372.
- Gunn S & Gould TC (1956) The relative importance of androgens and estrogens in the selective uptake of Zn by the dorsolateral prostate of the rat. *Endocrinol*, 58:443-452.
- Guo W, Burris TP & McCabe ER (1995a) Expression of DAX-1, the gene responsible for X-linked adrenal hypoplasia congenita and hypogonadotropic hypogonadism, in the hypothalamic-pituitary-adrenal/gonadal axis. *Biochem Mol Med*, 56:8-13.
- Guo YL, Lambert GH & Hsu CC (1995b) Growth abnormalities in the population exposed in utero and early postnatally to polychlorinated biphenyls and dibenzofurans. *Environ Health Perspect*, 103:117-122.
- Guruge KS, Tanabe S, Iwata H, Taksukawa R & Yamagishi S (1996) Distribution, biomagnification and elimination of butyltin compound residues in common cormorants (*Phalacrocorax carbo*) from Lake Biwa, Japan. *Arch Environ Contam Toxicol*, 31:210-217.
- Guruge KS, Iwata H, Tanaka H & Tanabe S (1997) Butyltin accumulation in the liver and kidney of seabirds. *Mar Environ Res*, 44:191-199.
- Gutleb A, Appelman J, Bronkhorst M, van den Berg J, Spenklink A, Brouwer A & Murk A (1999) Delayed effects of pre- and early life time exposure to polychlorinated biphenyls on tadpoles of two amphibian species (*Xenopus laevis* and *Rana temporaria*). *Environ Toxicol Pharm*, 8:1-14.
- Guttes S, Failing K, Neuman K, Kleinsten J, Georgii S & Brunn H (1998) Chlororganic pesticides and polychlorinated biphenyls in breast tissue of women with benign and malignant breast disease. *Arch Environ Contam Toxicol*, 35:140-147.
- Gutzke WH & Paukstis GL (1983) Influence of the hydric environment on sexual differentiation of turtles. *J Exp Zool*, 226(3):467-469.
- Guzick D, Overstreet J, Factor-Litvak P, Brazil CK, Nakajima ST, Coutfaris C, Carson SA, Cisneros P, Steinkampf MP, Hill JA, Xu D & Vogel D (2001) Sperm morphology, motility, and concentration in fertile and infertile men. *New England Journal of Medicine* 345:1388-1393.
- Gyllenberg J, Skakkebaek NE, Nielsen NC, Keiding N & Giwercman A (1999) Secular and seasonal changes in semen quality among young Danish men: a statistical analysis of semen quality among Danish men: a statistical analysis of semen samples from 1927 donor candidates during 1977-1995. *Int J Androl*, 22:28-36.
- Haathi H & Pertila M (1988) Levels and trends of organochlorines in cod and herring in the northern Baltic. *Mar Pollut Bull*, 19:29-32.
- Haffner GD, Glooschenko V, Straughan CA, Hebert CE & Lazar R (1998) Concentrations and distributions of polychlorinated biphenyls, including non-ortho congeners, in mink populations from southern Ontario. *J Great Lakes Res*, 24:880-888.
- Haffner GD, Straughan CA, Weseloh DV & Lazar R (1997) Levels of polychlorinated biphenyls, including coplanar congeners, and 2,3,7,8-TCDD toxic equivalents in double-crested cormorant and herring gull eggs from Lake Erie and Lake Ontario: A comparison between 1981 and 1992. *J Great Lakes Res*, 23:52-60.
- Hagedorn HH (1985) The role of ecdysteroids in reproduction. In: Kerkut GA, Gilbert LI, eds. *Comprehensive Insect Physiology, Biochemistry and Pharmacology*. Oxford: Pergamon Press, 8:205-262.
- Hagman J (1982) Inhibition of calmodulin-stimulated cyclic nucleotide phosphodiesterase by the insecticide DDT. *Fed Europ Biochem Soc Lett*, 143:52-54.
- Hahn ME (1998) The aryl hydrocarbon receptor: a comparative perspective. *Comp Biochem Physiol C Pharmacol Toxicol Endocrinol*, 121(1-3):23-53.
- Hakk H, Larsen G, Klasson Wehler E, Örn U & Bergman Å (1999) Tissue disposition, excretion, and metabolism of 2,2',4,4',5-pentabromodiphenyl ether (BDE-99) in male Sprague-Dawley rats. *Organohalogen Compounds*, 40:337-340.
- Hale RC, La Guardia MJ, Harvey EP, Gaylor MO, Matteson Mainor T & Duff WH (2001) Persistent pollutants in land-applied sludges. *Nature*, 412:140-141.
- Hall LW, Law RJ, Wells DE, Harwood J, Ross HM, Kennedy S, Allchin CR, Campbell LA & Pomeroy PP (1992) Organochlorine levels in common seals (*Phoca vitulina*) which were victims and survivors of the 1988 phocine distemper epizootic. *Sci Total Environ*, 115:146-162.
- Hall RJ & Henry PFP (1992) Assessing effects of pesticides on amphibians and reptiles: status and needs. *Herpetol J*, 2:65-71.
- Halme J, Hammond MG & Hulka JF (1984) Retrograde menstruation in healthy women and in patients with endometriosis. *Obstet Gynecol*, 64:151-154.
- Handelsman DJ (1997) Estimating familial and genetic contributions to variability in human testicular function: a pilot twin study. *Int J Androl*, 20:215-221.
- Hankinson O (1995) The aryl hydrocarbon receptor complex. *Annu Rev Pharmacol Toxicol*, 35:307-340.
- Hannon WH, Hill RH Jr, Bernert JT Jr, Haddock L, Lebron G & Cordero JF (1987) Premature thelarche in Puerto Rico: a search for

- environmental estrogen contamination. *Arch Environ Contam Toxicol*, 16:255-262.
- Hanrahan LP, Falk C, Anderson HA, Draheim L, Kanarek MS & Olson J (1999) Serum PCB and DDE levels of frequent Great Lakes sport fish consumers—a first look. The Great Lakes Consortium. *Environ Res*, 80:S26-S37.
- Hansen P-D, von Westernhagen H & Rosenthal H (1985) Chlorinated hydrocarbons and hatching success in Baltic herring spring spawners. *Mar Environ Res*, 15:59-76.
- Hansen P-D, Dizer H, Hock B, Marx A, Sherry J, McMaster M & Blaise C (1998) Vitellogenin—a biomarker for endocrine disruptors. *Trends Anal Chem*, 17:448-451.
- Hany J, Lilienthal H, Sarasin A, Roth-Härer A, Lichtensteiger W & Winneke G (1999) Developmental exposure of rats to a reconstituted PCB-mixture or Aroclor 1254: Effects on organ weights, aromatase activity, sex hormone-levels, and sweet preference behavior. *Toxicol Appl Pharmacol*, 158:231-243.
- Harino H, Fukushhima M & Kawai S (1999) Temporal trends of organotin compounds in the aquatic environment of the port of Osaka, Japan. *Environ Pollut*, 105:1-7.
- Härkönen T & Harding K (1999) Ringed seal in the Bothnian Bay 1998. Annual report from the Swedish marine monitoring program [in Swedish]. Umea, Umea Marina Forskningscentrum.
- Harmon JE, Boehm MF, Heyman RA & Manglesdorf DJ (1995) Activation of mammalian retinoid X receptors by the insect growth regulator methoprene. *Proc Natl Acad Sci USA*, 92:6157-6160.
- Harri M, Laitinen J & Valkama E (1979) Toxicity and retention of DDT in adult frogs (*Rana temporaria* L). *Environ Pollut*, 15:45-55.
- Harries JE, Sheahan DA, Jobling S, Mattheissen P, Neall P, Routledge E, Rycroft R, Sumpter JP & Tylor T (1996) A survey of estrogenic activity in United Kingdom inland waters. *Environ Toxicol Chem*, 15:1993-2002.
- Harries JE, Sheahan DA, Jobling S, Mattheissen P, Neall P, Sumpter JP, Tylor T & Zaman N (1997) Estrogenic activity in five United Kingdom rivers detected by measurement of vitellogenesis in caged male trout. *Environ Toxicol Chem*, 16:534-542.
- Harries JE, Janbakhsh A, Jobling S, Mattheissen P, Sumpter JP & Tyler CR (1999) Estrogenic potency of effluent from two sewage treatment works in the United Kingdom. *Environ Toxicol Chem*, 18:932-937.
- Harris ML, Bishop CA, Struger J, van den Heuvel M, Van Der Kraak GJ, Dixon DG, Ripley B & Bogart JP (1998a) The functional integrity of northern leopard frog (*Rana pipiens*) and green frog (*Rana clamitans*) populations in orchard wetlands. I: Genetics, physiology, and biochemistry of breeding adults and young-of-the-year. *Environ Toxicol Chem*, 17:1338-1350.
- Harris ML, Bishop CA, Struger J, Ripley B & Bogart JP (1998b) The functional integrity of northern leopard frog (*Rana pipiens*) and green frog (*Rana clamitans*) populations in orchard wetlands. II: Effects of pesticides and eutrophic conditions on early life stage development. *Environ Toxicol Chem*, 17:1351-1360.
- Harshbarger JC, Coffey MJ & Young MY (2000) Intersexes in Mississippi River shovelnose sturgeon sampled below St. Louis, Missouri, USA. *Mar Environ Res*, 50:247-250.
- Hashimoto S, Bessho H, Hara A, Nakamura M, Iguchi T & Fujita K (2000) Elevated serum vitellogenin levels and gonadal abnormalities in wild male flounder (*Pleuronectes yokohamae*) from Tokyo Bay, Japan. *Mar Environ Res*, 49:37-53.
- Hawkins MB, Thornton JW, Crews D, Skipper JK, Dotte A & Thomas P (2000) Identification of a third distinct estrogen receptor and reclassification of estrogen receptors in teleosts. *Proceedings National Academy of Sciences, USA* 97(20):10751-10756.
- Hayashi N, Sugimura Y, Kawamura J, Dnjacour AA & Cunha GR (1991) Morphological and functional heterogeneity in the rat prostatic gland. *Biol Reprod*, 45:308-321.
- Hayes TB (1998a) Sex determination and primary sex differentiation in amphibians: genetic and developmental mechanisms. *J Exp Zool*, 281:373-99.
- Hayes TB (1998b) Sex differentiation in amphibians, reptiles, and birds, hormonal control. In: Knobil E & Neill JD, eds. *Encyclopedia of Reproduction* 4:414-420. Raven Press, New York, N.Y.
- Hayes TB & Menendez KP (1999) The effect of sex steroids on primary and secondary sex differentiation in the sexually dichromatic reedfrog (*Hyperolius argus*: Hyperolidae) from the Arabuko Sokoke Forest of Kenya. *Gen Comp Endocrinol*, 115:188-199.
- Hayes TB, Wu TH & Gill TN (1997) DDT-like effects as a result of corticosterone treatment in an anuran amphibian: Is DDT a corticoid mimic or a stressor? *Environ Toxicol Chem*, 16:1948-1953.
- Haynes RCJ & Murand F (1985) Agents affecting calcification: calcium, parathyroid hormone, calcitonin, vitamin D, and other compounds. In: Gilman AG, Goodman LS, Rall TW & Murand F, eds. *The Pharmacological Basis of Therapeutics*, Seventh Edition. New York: Macmillan, pp. 1517-1543.
- Health Council Netherlands (1997) Committee on Endocrine Disruption in Humans. No. 1997/08, Rijswijk, The Netherlands, April, 1997.
- Heckman WR, Kane BR, Pakyz RE & Cosentino MJ (1992) The effect of ketoconazole on endocrine reproductive parameters in male mice and rats. *J Androl*, 13:191-198.
- Heijnen CJ, Kavelaars A & Ballieux RE (1991) Beta-Endorphin: cytokine and neuropeptide. *Immunol Rev*, 119:41-63.
- Heindel JJ & Chapin RE (1989) Inhibition of FSH-stimulated cAMP accumulation by mono (2-ethylhexyl) phthalate in primary rat Sertoli cell cultures. *Toxicol Appl Pharmacol*, 97:377-385.
- Heindel JJ & Powell CJ (1992) Phthalate ester effects on rat Sertoli cell function *in vitro*: effects of phthalate side chain and age of animal. *Toxicol Appl Pharmacol*, 115:116-123.
- Helander B & Bignert A (1992) Harbor seal (*Phoca vitulina*) on the Swedish Baltic coast: Population trends and reproduction. *Ambio*, 21:504-510.
- Helander B, Olsson M, Bignert A, Litzén K, Asplund L & Bergman Å (1998) Abnormal dehydration in eggs of the whitetailed sea eagle (*Haliaeetus albicilla*) in Sweden—a persisting effect from high exposure to organochlorines? In: *Organohalogen Compounds*, 39:423-426.
- Helander B, Olsson A, Bignert A, Asplund L & Litzén K (1999) White-tailed sea eagle *Haliaeetus albicilla* in Sweden: Reproduction in relation to DDE, PCB, Coplanar PCB and eggshell parameters. In: Olsson A, ed. *Applications of Various Analytical Chemical Methods for Exposure Studies of Halogenated Environmental Contaminants in the Baltic Environment*. (Paper V) Doctoral Dissertation, Environmental Chemistry, Stockholm University.
- Helferich W, Hsieh C & Santell R (1998) Paradoxical effects of the phytoestrogen genistein on growth of estrogen-dependent human breast cancer cells *in vitro* and *in vivo*. In: Dunaif GE, Olin SS,

- Scimeca J & Thomas JA, eds. Human Diet and Endocrine Modulation. Washington, D.C.: ILSI Press, pp.166-179.
- Helle E (1983) Hylkeiden elämää. Kirjayhtymä. Helsinki. pp. 171.
- Helzlsouer KJ, Alberg AJ, Huang H, Hoffman SC, Strickland PT, Brock JW, Burse VW, Needham LL, Bell DA, Lavigne JA, Yager JD & Comstock GW (1999) Serum concentrations of organochlorine compounds and the subsequent development of breast cancer. *Cancer Epidemiol Biomark Prev*, 8:525-532.
- Hemmer MJ, Hemmer BL, Bowman CJ, Kroll KJ, Folmar LC, Marcovich D, Hoglund MD & Denslow ND (2001) Effects of pnonylphenol, methoxychlor, and endosulfan on vitellogenin induction and expression in sheepshead minnow (*Cyprinodon Variegatus*). *Environ Toxicol Chem*, 20:336-341.
- Hemminki E, Gissler M & Merilainen J (1999) Reproductive effects of *in utero* exposure to estrogen and progestin drugs. *Fertil Steril*, 71:1092-1098.
- Henderson AK, Rosen D, Miller GL, Figgs LW, Zahn SH, Sieber SS, Humphrey HEB & Sinks T (1995) Breast cancer among women exposed to polybrominated biphenyls. *Epidemiol*, 6:544-546.
- Henderson BE, Benton B, Cosgrove M, Baptisa J, Aldrich J, Townsend D, Hart W & Mack TM (1976) Urogenital tract abnormalities in sons of women treated with diethylstilbestrol. *Pediatrics*, 58:505-507.
- Henny CJ, Grove RA & Hedstrom OR (1996) A field evaluation of mink and otter on the lower Columbia River and the influence of environmental contaminants. Final report. Corvallis OR, National Biological Services; Forest and Rangeland Ecosystem Science Center.
- Henriksen EO, Wiig O, Skaare JU, Gabrielsen GW, Derocher AE (2001) Monitoring PCBs in polar bears: Lessons learned from Svalbard. *J Environ Monitor*, 3(5):493-498.
- Hertz R (1979) Personal experiences emphasizing the environmental impact of estrogens. In: McLachlan JA, ed. Estrogens in the Environment. New York: Elsevier Science Publ Co., pp. 347-352.
- Hewitt LM, Parrott J, Wells K, Calp MK, Biddiscombe S, McMaster M, Munkittrick K & Van Der Kraak G (2000) Characteristiics of ligands for the Ah receptor and sex steroid receptors in hepatic tissues of fish exposed to bleached kraft mill effluent. *Environ Sci Technol*, 34:4327-4334.
- Higgins SJ, Brooks DE, Fuller FM, Jackson PH & Smith SE (1981) Functional development of sex accessory organs in the male rat. *Biochem J*, 194:895-905.
- Higuchi T, Kane C, Palmer J & Veeramachaneni DNR (1999) Developmental effects of DBP in frogs and rabbits. *Biol Reprod*, 60:A153.
- Hilakivi-Clarke L, Cho E, Onojafe I, Raygada M & Clarke R (1999a) Maternal exposure to genistein during pregnancy increases carcinogen-induced mammary tumorigenesis in female rat offspring. *Oncol Reports*, 6:1089-1095.
- Hilakivi-Clarke L, Raygada M, Onojafe I, Cho E, Skaar T, Russo I & Clarke R (1999b) Prepubertal exposure to zearalenone or genistein reduces mammary tumorigenesis. *Br J Cancer*, 80:1682-1688.
- Hildreth NG, Shore RE & Dvoretzky PM (1989) The risk of breast cancer after irradiation of the thymus in infancy. *New Engl J Med*, 321:1281-1284.
- Hill AB (1965) The environment and disease: Association or causation. *Proc Royal Soc Med*, 58:295.
- Hill RN, Erdreich LS, Paynter OE, Roberts PA, Rosenthal SL & Wilkinson CF (1989) Review. Thyroid follicular cell carcinogenesis. *Fundam Appl Toxicol*, 12:629-697.
- Hirohata K, Shigematsu N, Nomura AM, Nomura Y, Horie A & Hirohata I (1985) Breast cancer in caucasian and Japanese women. *Natl Cancer Inst Monogr*, 69:187-190.
- Hirsch KS, Weaver DE, Black LJ, Falcone JF & MacLusky NJ (1987) Inhibition of central nervous system aromatase activity: A mechanism for fenarimol-induced infertility in the male rat. *Toxicol Appl Pharmacol*, 91:235-245.
- Hodson PV, McWhirter M, Ralph K, Gray B, Thiverge D, Carey J, Van Der Kraak GJ, McWhittle D & Levesque M (1992) Effects of bleached kraft mill effluent on fish in the St. Maurice River, Quebec. *Environ Toxicol Chem*, 11:1635-1651.
- Hoffman B (1982) The Use of Hormones in Food-Producing Animals. Copenhagen: World Health Organization.
- Hoffman RE, Stehr-Green PA, Webb KB, Evans G, Knutsen AP, Schramm WF, Staake JL, Gibsob BB & Steinberg KK (1986) Health effects of long-term exposure to 2,3,7,8-tetrachlorodibenzop-dioxin. *JAMA*, 255:2031-2038.
- Holland JM & Lee C (1980) Effects of pituitary grafts on testosterone stimulated growth of rat prostate. *Biol Reprod*, 22:351-355.
- Hontela A (1998) Interrenal dysfunction in fish from contaminated sites: *In vivo* and *in vitro* assessment. *Environ Toxicol Chem*, 17:44-48.
- Hontela A, Rasmussen JB, Audet C & Chevalier G (1992) Impaired cortisol stress response in fish from environments polluted by PAHs, PCBs and mercury. *Arch Environ Contam Toxicol*, 22:278-283.
- Hontela A, Dumont P, Duclos D & Fortin R (1995) Endocrine and metabolic dysfunction in yellow perch, *Perca flavescens*, exposed to organic contaminants and heavy metals in the St Lawrence river. *Environ Toxicol Chem* 14:725-731.
- Hontela A, Daniel C & Rasmussen JB (1997) Structural and functional impairment of the hypothalamo-pituitary-interrenal axis in fish exposed to bleached kraft mill effluent in the St Maurice river, Québec. *Ecotoxicol*, 6:1-12.
- Hooper K, Petreas MX, Chuvakova T, Kazbekova G, Druz N, Seminova G, Sharmanov T, Hayward D, She J, Visita P, Winkler J, McKinney M, Wade T, Grossman J & Stephens RD (1998) Analysis of breast milk to assess exposure to chlorinated contaminants in Kazakstan: High levels of 2,3,7,8-tetrachlorodibenzo-pdioxin (TCDD) in agricultural villages of southern Kazakstan. *Environ Health Perspect*, 106:797-806.
- Hooper K, Chuvakova T, Kazbekova G, Hayward D, Tulenova A, Petreas MX, Wade TJ, Benedict K, Cheng YY & Grassman J (1999) Analysis of breast milk to assess exposure to chlorinated contaminants in Kazakhstan: sources of 2,3,7,8-tetrachlorodibenzop-dioxin (TCDD) exposures in an agricultural region of southern Kazakhstan. *Environ Health Perspect*, 107:447-457.
- Horn-Ross PL, Barnes S, Kirk M, Coward L, Parsonnet & Hiatt RA (1997) Urinary phytoestrogen levels in young women from a multiethnic population. *Cancer Epidemiol Biomarkers Prev*, 6:339-345.
- Houck LD & Woodley SK (1994) Field studies of steroid hormones and male reproductive behavior in amphibians. In: Heatwole H, ed. *Amphibian Biology*, Vol. 2: Social Behavior. Chipping Norton, Australia: Surret Beatty & Sons.
- Houghton DL & Ritter L (1995) Organochlorine residues and risk

- of breast cancer. *J Am College Pathol*, 14:71-89.
- Hovander L, Malmberg T, Athanasiadou M, Bergman Å, Rahm S & Klasson-Wehler E (2002) Identification of hydroxylated PCB metabolites and other halogenated phenolic pollutants in human blood plasma. *Arch Environ Contam Toxicol*, 42:105-117.
- Howell WM & Denton TE (1989) Gonopodial morphogenesis in female mosquitofish, *Gambusia affinis affinis*, masculinized by exposure to degradation products from plant sterols. *Environ Biol Fish*, 24:43-51.
- Howell WM, Black DA & Bortone SA (1980) Abnormal expression of secondary sex characters in a population of mosquitofish, *Gambusia affinis holbrooki*: evidence for environmentally-induced masculinization. *Copeia*, 980:676-681.
- Hoyer AP, Grandjean P, Jorgensen T, Brock JW & Hartvig HB (1998) Organochlorine exposure and risk of breast cancer. *Lancet*, 352:1816-1820.
- Hoyer AP, Jorgensen T, Brock JW & Hartvig HB (2000) repeated measurements of organochlorine exposure and breast cancer risk (Denmark). *Cancer Causes Control*, 11:177-184.
- Huang ZJ, Curtin KD & Rosbash M (1995) PER protein interactions and temperature compensation of a circadian clock in *Drosophila*. *Science*, 267:1169.
- Huestis SY, Servos MR, Whittle DM & Dixon DG (1996) Temporal and age-related trends in levels of polychlorinated biphenyl congeners and organochlorine contaminants in Lake Ontario lake trout (*Salvelinus namaycush*). *J Great Lakes Res*, 22:310-330.
- Huestis SY, Servos MR, Whittle DM, van den Heuvel M & Dixon DG (1997) Evaluation of temporal and age-related trends of chemically and biologically generated 2,3,7,8-tetrachlorodibenzo-*p*-dioxin equivalents in Lake Ontario lake trout, 1977-1993. *Environ Toxicol Chem*, 16:154-164.
- Huff J, Cirvello J, Haseman J & Bucher J (1991a) Chemicals associated with site-specific neoplasia in 1394 long-term carcinogenesis experiments in laboratory rodents. *Environ Health Perspect*, 93:247-270.
- Huff J, Haseman J & Rall D (1991b) Scientific concepts, value, and significance of chemical carcinogenesis studies. *Environ Health Perspect*, 103:680-683.
- Huisman M, Koopman-Esseboom C, Lanting CI, van der Paauw C, Tuinstra LGM, Fidler V, Weisglas-Kuperus N, Sauer PJJ, Boersma ER & Touwen BCL (1995) Neurological condition in 18-months-old children perinatally exposed to polychlorinated biphenyls and dioxins. *Early Hum Develop*, 43:165-176.
- Hulka BS & Stark AT (1995) Breast cancer: cause and prevention. *Lancet*, 346:883-887.
- Hunt G LJ, Wingfield JC, Newman A & Farner DS (1980) Sex ratio of Western Gulls on Santa Barbara Island, California. *Auk*, 97:473-479.
- Hunter DJ, Hankinson SE, Laden F, Colditz GA, Manson JE, Willett WC, Speizer FE & Wolff M (1997) Plasma organochlorine levels and risk of breast cancer in a prospective study. *New Engl J Med*, 337:1253-1258.
- Hunter DS, Hodges LC, Vonier PM, Fuchs-Young R, Gottardis MM & Walker CL (1999) Estrogen receptor activation via activation function 2 predicts agonism of xenoestrogens in normal and neoplastic cells of the uterine myometrium. *Cancer Res*, 59:3090-3099.
- Hurley PM, Hill RN & Whiting RJ (1998) Mode of carcinogenic action of pesticides inducing thyroid follicular cell tumors in rodents. *Environ Health Perspect*, 106:437-445.
- Hurst CH, Abbott BD, De Vito MJ & Birnbaum LS (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 CH, DeVito MJ & Birnbaum LS (2000a) 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 CH, DeVito MJ, Setzer RW & Birnbaum LS (2000b) 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.
- IARC (1991) Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans. Occupational Exposures in Insecticide Application and Some Pesticides. Lyon, France: International Agency for Research on Cancer, Volume 53, pp. 179-250.
- IARC (1997a) Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans. Polychlorinated Dibenzo-*p*-Dioxins and Polychlorinated Dibenzofurans. Lyon, France: International Agency for Research on Cancer, Volume 69, 666 pages.
- IARC (1997b) Cancer Incidence in Five Continents Vol. VII. Lyon, France: International Agency for Research on Cancer.
- IARC (1999) Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans. Hormonal Contraception and Post-Menopausal Hormonal Therapy. Lyon, France: International Agency for Research on Cancer, Volume 72, pp. 291-294.
- ICES (1992) Report of the Study Group on Seals and Small Cetaceans in Northern European Seas. ICES CM 1993/N:3.
- Igarashi T, Osuga U, Tsutsumi O, Momoeda M, Ando K, Matsumi H, Takai Y, Okagaki R, Hiroi H, Fujiwara O, Yano T, Taketani Y (1999) Expression of Ah receptor and dioxin-related genes in human uterine endometrium in women with or without endometriosis. *Endocrine J*, 46:765-772.
- Ikeda Y (1996) SF-1: a key regulator of development and function in the mammalian reproductive system. *Acta Paediatr Jpn*, 38:412-419.
- Ikeuchi T, Todo T, Kobayashi T & Nagahama Y (1999) cDNA cloning of a novel androgen receptor subtype. *J Biol Chem*, 274:25205-25209.
- Imperato-McGinley J, Sanchez RS, Spencer JR, Yee B & Vaughan ED (1992) Comparison of the effects of the 5 α -reductase inhibitor finasteride and the antiandrogen flutamide on prostate and genital differentiation: Dose-response studies. *Endocrinol*, 131:1149-1156.
- International Union of Pharmacology (1998) Natural and anthropogenic environmental oestrogens: the scientific basis for risk assessment. *Pure and Applied Chemistry*, 70(9):1617-1683.
- IPCS (1986) Principles and Methods for the Assessment of Neurotoxicity Associated with Exposure to Chemicals. Environmental Health Criteria 60. International Programme on Chemical Safety, World Health Organization, Geneva, Switzerland.
- IPCS (1992) Quality Management for Chemical Safety Testing. Environmental Health Criteria 141. International Programme on Chemical Safety, World Health Organization, Geneva, Switzerland.
- IPCS (1996) Principles and methods for assessing direct immunotoxicity

- associated with exposure to chemicals. Environmental Health Criteria 180. International Programme on Chemical Safety, World Health Organization, Geneva, Switzerland.
- IPCS (1999). Principles and Methods for Assessing Allergic Hypersensitization Associated with Exposure to Chemicals. Environmental Health Criteria 212. International Programme on Chemical Safety, World Health Organization, Geneva, Switzerland.
- IPCS (2000) Human Exposure Assessment. Environmental Health Criteria 214. International Programme on Chemical Safety, World Health Organization, Geneva, Switzerland.
- IPCS (2001a) Principles for Evaluating Health Risks to Reproduction Associated with Exposure to Chemicals. Environmental Health Criteria 225. International Programme on Chemical Safety, World Health Organization, Geneva, Switzerland.
- IPCS (2001b) Neurotoxicity Risk Assessment for Human Health: Principles and Approaches. Environmental Health Criteria 223. International Programme on Chemical Safety, World Health Organization, Geneva, Switzerland.
- Irvine S, Cawood E, Richardson D, MacDonald E & Aitken J (1996) Evidence of deteriorating semen quality in the United Kingdom: Birth cohort study in 577 men in Scotland over 11 years. *Brit Med J* 312:467-471.
- Isaac DD & Andrew DJ (1996) Tubulogenesis in drosophila: A requirement for the trachealess gene product. *Genes Dev*, 10:103-117.
- Iwama GK, Pickering AD, Sumpter JP & Schreck CB (1997) Fish Stress and Health in Aquaculture. Cambridge: Cambridge University Press, 166 pages.
- Iwata H, Tanabe S, Mizunu T & Tatsukawa R (1995) High accumulation of toxic butyltins in marine mammals from Japanese coastal waters. *Environ Sci Technol*, 29:2959-2962.
- Jacobsen R, Bostofte E, Engholm G, Hansen J, Skakkebaek NE & Möller H (2000) Fertility and offspring sex ratio of men who develop testicular cancer: A record linkage study. *Human Reprod*, 15:1958-1961.
- Jacobson JL & Jacobson SW (1996) Intellectual impairment in children exposed to polychlorinated biphenyls *in utero*. *New Engl J Med*, 335:783-789.
- Jacobson JL, Jacobson SW & Humphrey HEB (1990) Effects of *in utero* exposure to polychlorinated biphenyls and related contaminants on cognitive functioning in young children. *J Pediatr*, 116:38-45.
- Jacobson JL, Jacobson SW (2001) Postnatal exposure to PCBs and childhood development. *Lancet*, 358(9293):1568-1569.
- Jakobsson K, Thuresson K, Rylander L, Sjödin A, Hagmar L & Bergman Å (2002) Exposure assessment of polybrominated diphenyl ethers and tetrabromobisphenol A exposures in a group of computer technicians. *Chemosphere*, 46:709-716.
- James WH (1976) Timing of fertilization and sex ratio of offspring—a review. *Ann Hum Biol*, 3:549-556.
- James WH (1980) Time of fertilization and sex of infants. *Lancet*, 1:1124-1126.
- James WH (1986) Hormonal control of sex ratio. *J Theor Biol*, 118:427-441.
- James WH (1994) Cycle day of insemination, sex ratio of offspring and duration of gestation. *Ann Hum Biol*, 21:263-266.
- James WH (1995a) What stabilizes the sex ratio? *Ann Hum Genet*, 59:243-249.
- James WH (1995b) Follicular phase length, cycle day of conception and sex ratio of offspring. *Hum Reprod*, 10:2529-2531.
- James WH (1996) Interpregnancy intervals, high maternal age and seasonal effects on the human sex ratio. *Hum Reprod*, 11:7-8.
- James WH (1997) Sex ratio, coital rate, hormones and time of fertilization within the cycle. *Ann Hum Biol*, 24:403-409.
- James WH (1998) Re: the use of offspring sex ratios in the search for endocrine disruptors. *Environ Health Perspect*, 106:A472-A473.
- Jannini EA, Ulisse S & D'Armiento M (1995) Thyroid hormone and male gonadal function. *Endocrinol Rev*, 16:443-459.
- Janssen PAH, Lambert JGD, Vethaak AD & Goos HJT (1997) Environmental pollution caused by elevated concentrations of oestradiol and vitellogenin in the female flounder, *Platichthys flesus* (L.). *Aquat Toxicol*, 39:195-214.
- Jansson B, Jensen S, Olsson M, Renberg L, Sundström G & Vaz R (1975) Identification by GC-MS of phenolic metabolites of PCB and *p,p'*-DDE isolated from Baltic guillemot and seal. *Ambio*, 4:93-97.
- Jansson B, Vaz R, Blomkvist G, Jensen S & Olsson M (1979) Chlorinated terpenes and chlordanes found in fish, guillemot and seal from Swedish waters. *Chemosphere*, 4:181-190.
- Jansson B, Andersson R, Asplund L, Litzén K, Nylund K, Sellström U, Uvemo U-B, Wahlberg C, Wideqvist U, Odsjö T & Olsson M (1993) Chlorinated and brominated persistent organic compounds in biological samples from the environment. *Environ Toxicol Chem*, 12:1163-1174.
- Japan Chemical Industry Association (1997) A study on chemicals which affect the endocrine systems. Japan Chemical Industry Ecology-Toxicology and Information Center. June, Tokyo, Japan.
- Jaquet D, Leger J, Tabone MD, Czernichow P & Levy-Marchal C (1999) High serum leptin concentrations during catch-up growth of children born with intrauterine growth retardation. *J Clin Endocrinol Metab*, 84:1949-1953.
- Jarrell JF, Seidel JE & Bigelow P (1993a) Adverse effects of drugs used for ovulation induction. Vol. 11, The Case for Evidence Based Medicine, 1-6-9930. Ottawa, Canada, Royal Commission. Royal Commission on New Reproductive Technologies and the Health Care System, pp. 453-549.
- Jarrell JF, Villeneuve D, Franklin C, Bartlett S, Wrixon W, Kohut J & Zouves CG (1993b) Contamination of human ovarian follicular fluid and serum by chlorinated organic compounds in three Canadian cities. *Can Med Assoc J* 148:1322-1327.
- Jarrell JF, Gocmen A, Foster WG, Brant R, Chan S & Sevcik M (1998) Evaluation of reproductive outcomes in women inadvertently exposed to hexachlorobenzene in southeastern Turkey in the 1950's. *Reprod Toxicol*, 12:469-476.
- Jarrell JF, Gocmen A, Akyol D & Brant R (2000) Studies on the secondary sex ratio in Turkey. *Reprod Toxicol*, 14:65-70.
- Jegou B, Auger J, Multinger L, Pineau C, Thonneau P, Spira A & Jouannet P (1999) The saga of the sperm count decrease in human, wild and farm animals. In: Gagnon C, ed. *The Male Gamete: From Basic Science to Clinical Application*. Cache River Press, Vienna, Illinois, pp. 445-454.
- Jennings AM, Wild G, Ward JD & Ward AM (1988) Immunological abnormalities 17 years after accidental exposure to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. *Brit J Ind Med*, 45:701-704.
- Jensen S, Johnels AG, Olsson M & Otterlind G (1972) DDT and PCB in herring and cod from the Baltic, the Kattegat and the Skagerrak. *Ambio Special Report*, 1:71-85.
- Jensen TK, Slama R, Ducot B, Suominen J, Cawood EH, Andersen AG, Eustache F, Irvine S, Auger S, Jouannet P, Vierula

- M, Jorgensen N, Toppari J, Skakkebaek NE, Keiding N & Spira A (2001) Regional differences in waiting time to pregnancy among fertile couples in four European cities. *Human Reproduction* 16:2697-2704.
- Jernstrom H, Lerman C, Ghadirian P, Lynch HT, Weber B, Garber J, Daly M, Olopade OI, Foulkes WD, Warner E, Brunet JS & Narod SA (1999) Pregnancy and risk of early breast cancer in carriers of BRCA1 and BRCA 2. *Lancet*, 354:1846-1850.
- Jeyasuria P & Place AR (1997) Temperature-dependent aromatase expression in developing diamondback terrapin (*Malaclemys terrapin*) embryos. *J Steroid Biochem Mol Biol*, 61(3-6):415-425.
- Jeyasuria P & Place AR (1998) Embryonic brain-gonadal axis in temperature-dependent sex determination of reptiles: a role for P450 aromatase (CYP19). *J Exp Zool*, 281(5):428-449.
- Jeyasuria P, Roosenburg WM & Place AR (1994) Role of P-450 aromatase in sex determination of the diamondback terrapin, *Malaclemys terrapin*. *J Exp Zool*, 270(1):95-111.
- Jobling S (1998) Review of suggested testing methods for endocrine-disrupting chemicals. In: *Natural and Anthropogenic Environmental Oestrogens: The Scientific Basis for Risk Assessment*. *Pure and Applied Chemistry*, 70:1805-1827.
- Jobling SJ & Sumpter JP (1993) Detergent components in sewage effluent are weakly oestrogenic to fish: an *in vitro* study using rainbow trout hepatocytes. *Aquat Toxicol*, 27:361-372.
- Jobling S, Sheahan DA, Osborne JA, Matthiessen P & Sumpter JP (1996) Inhibition of testicular growth in rainbow trout (*Oncorhynchus mykiss*) exposed to estrogenic alkylphenolic chemicals. *Environ Toxicol Chem*, 15:194-202.
- Jobling S, Nolan M, Tyler CR, Brighty G & Sumpter JP (1998a) Widespread sexual disruption in wild fish. *Environ Sci Technol*, 32:2498-2506.
- Jobling S, Tyler CR, Nolan M & Sumpter JP (1998b) The identification of oestrogenic effects in wild fish. London, UK Environment Agency, R&D Technical Report W119.
- Joffe M (1996) Decreased fertility in Britain compared with Finland. *Lancet*, 347:1519-1522.
- Joffe M (2000) Time trends in biological fertility in Britain. *Lancet*, 355:1961-1965.
- Joffe M & Barnes I (2000) Do parental factors affect male and female fertility? *Epidemiol*, 11:700-705.
- Johansen HR, Alexander J, Rosslund OJ, Planting S, Lovik M, Gaarder PI, Gdynia W, Bjerve KS & Becher G (1996) PCDDs, PCDFs, and PCBs in human blood in relation to consumption of crabs from a contaminated Fjord area in Norway. *Environ Health Perspect*, 104:756-764.
- Johansson N & Ahlberg UG (1994) PCDD/PCDF, PCB and related compounds: the Scandinavian situation. *Dioxin '94. Organohalogen Compounds*, 44:587-590.
- Johnson KL, Cummings AM & Birnbaum LS (1997) Promotion of endometriosis in mice by polychlorinated dibenzo-*p*-dioxins, dibenzofurans and biphenyls. *Environ Health Perspect*, 105:750.
- Johnson LL, Casillas E, Collier TK, McCain BB & Varanasi U (1988) Contaminant effects on ovarian development in English sole (*Parophrys vetulus*) from Puget Sound, Washington. *Can J Fish Aquat Sci*, 45:2133-2146.
- Johnson LL, Stein JE, Collier TK, Casillas E, McCain B & Varanasi U (1992) Bioindicators of contaminant exposure, liver pathology, and reproductive development in prespawning female winter flounder (*Pleuronectes americanus*) from urban and nonurban estuaries on the northeast Atlantic coast. Washington, D.C :U.S. Department of Commerce, National Oceanic and Atmospheric Administration, NOAA Technical Memorandum NMFSNWFS-1, 76 pp.
- Johnson LL, Sol SY, Ylitalo GM, Hom T, French B, Olson OP & Collier TK (1997) Precocious sexual maturation and other reproductive anomalies in English sole from an urban waterway. International Council for the Exploration of the Sea, Copenhagen, ICES CM 1997/U:07, 15 pp. + figs.
- Johnson LL, Misitano D, Sol SY, Nelson GM, French B, Ylitalo GM & Hom T (1998) Contaminant effects on ovarian development and spawning success in rock sole from Puget Sound, Washington. *Trans Am Fish Soc*, 127:375-392.
- Johnson P, Lunde K, Ritchie E & Launer A (1999) The effect of trematode infection on amphibian limb bud development and survivorship. *Science*, 284:802.804.
- Johnstone R, Court G, Fesser A, Bradley D. Oliphant L & MacNeil J (1996) long-term trends and sources of organochlorine contamination in Canadian tundra peregrine falcons, *Falco peregrinus tundrius*. *Environ Pollut*, 93:109-120.
- Jones G & Sharp PA (1997) Ultraspiracle: an invertebrate nuclear receptor for juvenile hormones. *Proc Natl Acad Sci. USA* 94:13499-13503.
- Jones PD, Giesy JP, Newsted JL, Verbrugge DA, Ludwig JP, Ludwig ME, Auman HJ, Crawford R, Tillitt DE, Kubiak TJ & Best DA (1994) Accumulation of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin equivalents by double-crested cormorant (*Phalacrocorax auritus*, *Pelicaniformes*) chicks in the North American Great Lakes. *Ecotox Environ Saf* 27:192-209.
- Jones RE (1971) The incubation patch of birds. *Biol Revs*, 46:315-339.
- Jönsson CJ (1994) Decreased plasma corticosterone levels in suckling mice following injection of the adrenal toxicant, MeSO₂-DDE, to the lactating dam. *Pharmacol Toxicol*, 74:58-60.
- Jönsson C-J, Rodriguez-Martinez H, Lund B-O, Bergman A & Brandt I (1991) Adrenocortical toxicity of 3-methylsulphonyl-DDE in mice. II: Mitochondrial changes following ecologically relevant doses. *Fundam Appl Toxicol*, 16:365-374.
- Jordan VC, Lababidi MK & Langan-Fahey S (1991) Suppression of mouse mammary tumorigenesis by long-term tamoxifen therapy. *J Natl Cancer Inst*, 83:492-496.
- Jordan VC, Mittal S, Gosden B, Koch R & Lieberman ME (1985) Structure-activity relationships of estrogens. *Environ Health Perspect*, 61:97-110.
- Jorgensen N, Auger J, Giwercman A, Irvine DS, Jensen TK, Jouannet P, Keiding N, Le Bon C, MacDonald E, Pekuri AM, Scheike T, Simonsen M, Suominen M, Suominen J & Skakkebaek NE (1997) Semen analysis performed by different laboratory teams: an intervariation study. *Ant J Androl*, 20:201-208.
- Jorgensen N, Andersen AG, Eustache F, Irvine DS, Suominen J, Petersen JH, Andersen AN, Auger J, Cawood EHH, Horte A, Kold- Jensen T, Jouannet P, Keiding NB, Vierula M, Toppari J & Skakkebaek N (2001) Regional differences in semen quality in Europe. *Hum Reprod*, 16:1012-1019.
- Jouannet P, Czygłok F, David G, Mayaux MJ, Spira, Moscato ML & Schwartz D (1981) Study of a group of 484 fertile men. Part 1: Distribution of semen characteristics. *Int J Androl*, 11:379-394.

- Juarez de Ku LM, Sharma-Stokkermans M & Meserve LA (1994) Thyroxine normalizes polychlorinated biphenyl (PCB) dose-related depression of choline acetyltransferase (ChAT) activity in hippocampus and basal forebrain of 15-day-old rats. *Toxicology*, 94:19-30.
- Juul S, Karmmaus W & Olsen J (1999) Regional differences in waiting time to pregnancy: pregnancy-based surveys from Denmark, France, Germany, Italy and Sweden. The European Infertility and Subfecundity Study Group. *Hum Reprod*, 14:1250-1254.
- Källen B, Bertolini R, Castilla E, Czeizel A, Knudsen LB, Martinez-Fria ML, Mastroiacovo P & Mutchinick O (1986) A joint international study on the epidemiology of hypospadias. *Acta Paediatr Scand*, (Suppl)324:5-52.
- Kallenborn R & Hühnerfuss H (2001) *Chiral Environmental Pollutants: Trace Analysis and Ecotoxicology*. Springer-Verlag, New York, N.Y.
- Kannan K & Falandysz J (1997) Butyltin residues in sediment, fish, fish-eating birds, harbour porpoise and human tissues from the Polish coast of the Baltic Sea. *Mar Poll Bull*, 34:203-207.
- Kannan K, Tanabe S, Iwata H & Tatsukawa R (1995a) Butyltins in muscle and liver of fish collected from certain Asian and Oceanian countries. *Environ Pollut*, 90:279-290.
- Kannan K, Yasunaga Y, Iwata H, Ichihashi H, Tanabe S & Tatsukawa R (1995b) Concentrations of heavy metals, organochlorines, and organotins in horseshoe crab (*Tachypleus tridentatus*) from Japanese coastal waters. *Arch Environ Contam Toxicol*, 28:40-47.
- Kannan K, Corsolini S, Focardi S, Tanabe S & Tatsukawa R (1996) Accumulation pattern of butyltin compounds in dolphin, tuna and shark collected from Italian coastal waters. *Arch Environ Contam Toxicol*, 31:19-23.
- Kannan K, Senthilkumar K, Loganathan BG, Takahashi S, Odell DK & Tanabe S (1997) Elevated accumulation of tributyltin and its breakdown products in bottlenose dolphins (*Tursiops truncatus*) found stranded along the U.S. Atlantic and Gulf coasts. *Environ Sci Technol*, 31:296-301.
- Kanno J, Ward JM & Maronpot RR (1996) Mechanisms of chemically induced thyroid follicular carcinogenesis. *Prog Clin Biol Res*, 394:353-398.
- Kanno J, Onyon L, Haseman J, Fenner-Crisp P, Ashby J, Owens W (2000) The OECD Program to validate the rat uterotrophic bioassay to screen compounds for *in vivo* estrogenic responses: Phase I. *Environ Health Perspect*, 109:785-794.
- Karels A, Soimasuo M & Oikari A (1999) Effects of paper and pulpmill effluents on reproduction, bile conjugates and liver MFO (mixed function oxygenase) activity in fish at southern Lake Saimaa, Finland. *Water Sci Technol*, 40:109-114.
- Kasper P & Mueller L (1999) Sex-specific induction of apoptosis by cyproterone acetate in primary rat hepatocytes. *Carcinogenesis*, 20:2185-2188.
- Kavelaars A, Cats B, Visser GHA, Zegers BJM, Bakker JM, Van Rees EP & Heijnen CJ (1996) Ontogeny of the response of human peripheral blood T cells to glucocorticoids. *Brain Behav Immun* 10:288-297.
- Kavlock RJ, Daston GP, DeRosa C, Fenner-Crisp P, Gray LE, Kaatari S, Lucier G, Luster M, Mac MJ, Maszka C, Miller R, Moore J, Rolland R, Scott G, Sheehan DM, Sinks T & Tilson HA (1996) Research needs for the risk assessment of health and environmental effects of endocrine disruptors: A report of the U.S. EPA-sponsored workshop. *Environ Health Perspect*, 104(Suppl 4):715-740.
- Keeler RF & Panter KE (1989) Piperidine alkaloid composition and relation to crooked calf disease-inducing potential of *Lupinus formosus*. *Teratology*, 40:423-432.
- Kelce WR, Monosson E, Gamcsik MP, Laws S & Gray LE Jr (1994) Environmental hormone disruptors: Evidence that vinclozolin developmental toxicity is mediated by antiandrogenic metabolites. *Toxicol Appl Pharmacol*, 126:275-285.
- Kelce WR, Stone CR, Laws SC, Gray LE, Kemppainen JA & Wilson EM (1995) The persistent DDT metabolite *p,p'*-DDE is a potent androgen receptor antagonist. *Nature*, 375:581-585.
- Kelce WR, Lambright C, Gray LE & Roberts K (1997) Vinclozolin and *p,p'*-DDE alter androgen-dependent gene expression: *In vivo* confirmation of an androgen receptor mediated mechanism. *Toxicol Appl Pharmacol*, 142:192-200.
- Kelsey JL & Bernstein L (1996) Epidemiology and prevention of breast cancer. *Annu Rev Publ Health*, 17:47-67.
- Kendall R, Dickerson R, Griesy J & Suk W, eds. (1998) *Principles and Processes for Evaluating Endocrine Disruption in Wildlife*. Society of Environmental Toxicology and Chemistry. Pensacola, FL: SETAC Press, 491 pages.
- Key TJ, Chen J, Pike MC, Boreham J (1990) Sex hormones in women in rural China and Britain. *Br J Cancer*, 62:636.
- Khan IA & Thomas P (1998) Estradiol-17 β and *o,p'*-DDT stimulate gonadotropin release in Atlantic croaker. *Mar Environ Res*, 46:149-152.
- Khan IA, Thomas P (2000) Lead and Aroclor 1254 disrupt reproductive neuroendocrine function in Atlantic croaker. *Mar Environ Res*, 50(1-5):119-123.
- Khan IA & Thomas P (2001) Disruption of neuroendocrine control of luteinizing hormone secretion by Aroclor 1254 involves inhibition of hypothalamic tryptophan hydroxylase activity. *Biology of Reproduction* 64:955-964.
- Kierkegaard A, Sellström U, Bignert A, Olsson M, Asplund L, Jansson B & de Wit C (1999) Temporal trends of a polybrominated diphenyl ether (PBDE), a methoxylated PBDE, and hexabromocyclododecane (HBCD) in Swedish biota. *Organohalogen Compounds*, 40:367-370.
- Kihlström JE, Olsson M, Jensen S, Johansson A, Ahlbom J & Bergman A (1992) Effects of PCB and different fractions of PCB on the reproduction of the mink (*Mustela vison*). *Ambio*, 21:563-569.
- Kikuyama S, Kawamura K, Tanaka S & Yamamoto K (1993) Aspects of amphibian metamorphosis: hormonal control. *Int Rev Cytol*, 145:105-148.
- Kilburn KH, Warsaw RH & Shields MG (1989) Neurobehavioral dysfunction in firemen exposed to polychlorinated biphenyls (PCBs): Possible improvement after detoxification. *Arch Environ Health*, 44:345-350.
- Kim GB, Lee JS, Tanabe S, Iwata H, Tatsukawa R & Shimazaki K (1996a) Specific accumulation and distribution of butyltin compounds in various organs and tissues of the Steller sea lion (*Eumetopias jubatus*): comparison with organochlorine accumulation pattern. *Mar Poll Bull*, 32:558-563.
- Kim GB, Tanabe S, Iwakiri R, Tatsukawa R, Amano M, Miyazaki

- N & Tanaka H (1996b) Accumulation of butyltin compounds in Risso's dolphin (*Grampus griseus*) from the Pacific coast of Japan: Comparison with organochlorine residue pattern. *Environ Sci Technol*, 30:2620-2625.
- Kim GB, Tanabe S, Tatsukawa R, Loughlin TR & Shimazaki K (1996c) Characteristics of butyltin accumulation and its biomagnification in Steller sea lion (*Eumetopias jubatus*). *Environ Toxicol Chem*, 15:2043-2048.
- Kimball AM, Hamadeh R, Mahmood RA, Kalfan S, Mushin A, Ghabrial F & Armenian HK (1981) Gynecomastia among children in Bahrain. *Lancet*, 1(8221):671-672.
- Kime DE (1998) *Endocrine Disruption in Fish*. Boston: Kluwer Academic Publishers.
- Kime DE, Nash JP & Scott AP (1999) Vitellogenesis as a biomarker of reproductive disruption by xenobiotics. *Aquacult*, 177:345-352.
- Kimura F & Funabashi T (1998) Two subgroups of gonadotropin-releasing neurons control gonadotropin secretion in rats. *News Physiol Sci*, 13:225-231.
- King DP, Zhao Y, Sangoram AM, Wilsbacher LD, Tanaka M, Antoch MP, Steeves TDL, Vitaterna MH, Kornhauser JM, Lowrey PL, Turek FW & Takahashi JS (1997) Positional cloning of the mouse circadian clock gene. *Cell*, 89:64.
- Kirk JJ (1988) Western spotted frog (*Rana pretiosa*) mortality following forest spraying of DDT. *Herpetol Rev*, 19:51-53.
- Kleinow K, Baker J, Nichols J, Gobas F, Parkerton T, Muir D, Monteveddi G & Mastrodone P (1999) Chemical exposure, uptake and disposition: Implications for reproduction and development in select oviparous vertebrates. In: Tillitt D & DeGuilio R, eds. *Reproductive and Developmental Toxicology of Contaminants in Oviporous Animals*. Pensacola, FL: SETAC Press, 397 pages.
- Kloas W, Lutz I & Einspanier R (1999) Amphibians as a model to study endocrine disruptors. II: Estrogenic activity of environmental chemicals *in vitro* and *in vivo*. *Sci Total Environ*, 225:59-68.
- Klotz DM, Arnold SF & McLachlan JA (1997) Inhibition of 17 β -estradiol and progesterone activity in human breast and endometrial cells by carbamate insecticides. *Life Sci*, 60:1467-1475.
- Kniewald J, Peruzovic M, Gojmerac T, Milkovic K & Kniewald Z (1987) Indirect influence of s-triazines on rat gonadotropic mechanism at early postnatal period. *J Steroid Biochem*, 27:1095-1100.
- Knuth ML (1989) Determination of the insect growth regulator methoprene in natural waters by capillary gas-liquid chromatography. *Chemosphere* 18:2275-2281.
- Kobayashi M, Aida K & Stacey NE (1991) Induction of testis development by implantation of 11-ketotestosterone in female goldfish. *Zool Sci*, 8:389-393.
- Kocan A, Petrik J, Jursa S, Chovancova J & Drobna B (2001) Environmental contamination with polychlorinated biphenyls in the area of former manufacture in Slovakia. *Chemosphere*, 43:595-600.
- Koger C, The S & Hinton D (1999) *p-tert-Octylphenol* and or vinclozolin induced intersex in developing Medaka (*Oryzias latipes*). *Toxicologist*, 48(Suppl 1-S):A1264, p. 268.
- Kogevinas M, Saracci R, Winkelmann R, et al. (1994) Cancer incidence and mortality in women occupationally exposed to chlorophenoxy herbicides, chlorophenols, and dioxins. *Cancer Causes Control*, 4:547-553.
- Kolbusz WE & Grayhach LC (1982) Delay of castration-induced regression in rat prostate by pituitary homografts. *J Urol*, 127:581-584.
- Koninckx PR (1999) The pathophysiology of endometriosis: pollution and dioxin. *Gynecol Obstet Invest*, 47:47-49.
- Koolman J, ed. (1989) *Ecdysone: From Chemistry to Mode of Action*. Stuttgart: New York, N.Y., 482 pages.
- Koopman-Esseboom C (1995) Effects of perinatal exposure to PCBs and dioxins on early human development. Thesis. Rotterdam: Erasmus University (ISBN 90-75340-03-6).
- Koopman-Esseboom C, Morse DC, Weisglas-Kuperus N, Lutkeschipholt IJ, van der Paauw C, Tuinstra LGM, Brouwer A & Sauer PJJ (1995) Effects of dioxins and polychlorinated biphenyls on thyroid hormone status of pregnant women and their infants. *Pediatr Res*, 36:468-473.
- Koopman-Esseboom C, Weisglas-Kuperus N, de Riddert MAJ, van der Paauw CG, Tuinstra LGMT & Sauer, PJJ (1996) Effects of polychlorinated biphenyl/dioxin exposure and feeding type on infants' mental and psychomotor development. *Pediatrics*, 97:700-706.
- Korach K, Sarver SP, Chae K, McLachlan JA & McKinney JD (1988) Estrogen receptor-binding activity of polychlorinated hydroxybiphenyls: conformational restricted structural probes. *Mol Pharmacol*, 33:120.
- Kotoula V, Karkavelas G, Economou L, Sionga A, Boutis L & Kerameos-Foroglou C (1993) Effects of tamoxifen and CV 205502 on the morphology and the evolution of the noncancerous mouse mammary gland. *Histol Histopath*, 8:627-636.
- Kovacs TG, Gibbons JS, Tremblay LA, O'Connor BI, Martel PH & Voss RI (1995) The effect of a secondary-treated bleached kraft pulpmill effluent on aquatic organisms as assessed by short-term and long-term laboratory tests. *Ecotoxicol Environ Saf*, 31:7-22.
- Kozak KR, Abbott BD & Hankinson O (1997) ARNT-deficient mice and placental differentiation. *Develop Biol*, 191:297.
- Kramer VJ, Helferich WG, Bergman Å, Klasson Wehler E & Giesy JP (1997) Hydroxylated polychlorinated biphenyl metabolites are anti-estrogenic in a stably transfected human breast adenocarcinoma (MCF7) cell line. *Toxicol Appl Pharmacol*, 144:363-376.
- Krauss RS & Eling E (1987) Macromolecular binding of the thyroid carcinogen 3-amino-1,2,4-triazole (amitrol) catalyzed by prostaglandin H synthase, lactoperoxidase and thyroid peroxidase. *Carcinogenesis*, 8:659-664.
- Kremer H, Lilienthal H, Hany J, Roth-Härer A & Winneke G (1999) Sex-dependent effects of maternal PCB exposure on the electroretinogram in adult rats. *Neurotoxicol Teratol*, 21:13-19.
- Krieger N, Wolff MS, Hiatt RA, Rivera M, Vogelmann J & Orentreich N (1994) Breast cancer and serum organochlorines: A prospective study among white, black, and Asian women. *J Natl Cancer Inst*, 86:589-599.
- Kristensen P, Irgens LM, Andersen A, Bye AS & Sundheim L (1997) Birth defects among offspring of Norwegian farmers, 1967-1991. *Epidemiol*, 8:337-344.
- Krstevska-Konstantinove M, Charlier C, Craen M, Du Caju M, Heinrichs C, de Beaufort C, Plomteux G & Bourguignon JP (2001) Sexual precocity after immigration from developing countries to Belgium: Evidence of previous exposure to organochlorine pesticides. *Human Reproduction* 16:1020-1026.
- Kubeck E, Naylor CG (1990) Trace analysis of alkylphenol ethoxylates. *J Am Oil Chem. Soc*, 67:400-405.
- Kuiper-Goodman T, Scott PM & Watanabe H (1987) Risk

- assessment of the mycotoxin zearalenone. *Risk Toxicol Pharmacol*, 7:253-306.
- Küppers E & Beyer C (1998) Expression of aromatase in the embryonic and postnatal mouse striatum. *Mol Brain Res*, 63:184-188.
- Kuroki Y, Iwamoto T, Lee J, Yoshiike M, Nozawa S, Takayasu N, Ewis AA, Nakamura H, Toda T, Tokunaga K, Kotliarove SE, Kondoh N, Noh E, Namiki M, Shinka T & Nakahori Y (1999) Spermatogenic ability is different among males in different Y chromosome lineage. *J Hum Genet*, 44:289-292.
- Kvestak R & Ahel M (1994) Occurrence of toxic metabolites from nonionic surfactants in the Krka River estuary. *Ecotoxicol Environ Saf*, 28(1):25-34.
- La Clair J, Bantle JA & Dumont J (1998) Photoproducts and metabolites of a common insect growth regulator produce developmental deformities in *Xenopus*. *Environ Sci Technol*, 32:1453-1461.
- Laden F, Hankinson SE, Wolff MS, Graham C, Willett WC & Speizer FE, et al. (2001a) plasma organochlorine levels and risk of breast cancer: An extended follow-up in the nurses' health study. *Int J Cancer*, 91:568-574.
- Laden F, Collman G, Iwamoto K, Alberg AJ, Berkowitz GS, Freudenheim JL, Hankinson SE, Helzlsouer KJ, Holdford TR, Huan HY, Moysich KB, Essari JD, Wolff M, Zheng, T & Hunter D (2001b) 1,1-Dichloro-2,2-bis (p-chlorophenyl)ethylene and polychlorinated biphenyls and breast cancer: Combined analysis of five U.S studies. *J Natl Cancer Inst*, 93:768-776.
- Lake B, Brantom P, Gangolli S, Butterworth R & Grasso P (1976) Studies on the effects of orally administered DEHP in the ferret. *Toxicology*, 6:341-356.
- Lamb T, Bickham JW, Lyne TB & Gibbons JW (1995) The slider turtle as an environmental sentinel: Multiple tissue assays using flow cytometric analysis. *Ecotoxicol*, 4(1):5-13.
- Lambright C, Ostby J, Bobseine K, Wilson V, Hotchkiss AK, Mann PC & Gray LE (2000) Cellular and molecular mechanisms of action of linuron: an antiandrogenic herbicide that produces reproductive malformations in male rats. *Toxicol Sci*, 56:389-399.
- Lancaster JM, Wooster R, Mangion J, Phelan CM, Cochran C, Gumbs C, Seal S, Barfoot R, Collins N & Bignell G, et al. (1996) BRCA2 mutations in primary breast and ovarian cancers. *Nature Gen*, 13:238-240.
- Lance VA (1994) Introduction: Environmental sex determination in reptiles: Patterns and processes. *J Exp Zool*, 270:1-2.
- Landahl JT, Johnson LL, Collier TK, Stein JE & Varanasi U (1997) Approaches for determining effects of pollution on fish populations of Puget Sound. *Trans Am Fish Soc*, 126:519-535.
- Landi MT, Consonni D, Patterson DGJr, Needham LL, Lucier G, Brambilla P, Cazzaniga MA, Mocarelli P, Pesatori AC, Bertazzi PA & Caporaso NE (1998) 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin plasma levels in Seveso 20 years after the accident. *Environ Health Perspect*, 106:273-277.
- Langer P, Tajtakova M, Fodor G, Kocan A, Bohov P, Michalek J & Kreze A (1998) Increased thyroid volume and prevalence of thyroid disorders in an area heavily polluted by polychlorinated biphenyls. *Eur J Endocrinol*, 139:402-406.
- Lannoo MJ, ed. (1998) Status and Conservation of Midwestern Amphibians. Iowa City, IA: University of Iowa Press.
- Lans MC, Klasson Wehler E, Willemsen M, Meussen E, Safe S & Brouwer A (1993) Structure-dependent, competitive interaction of hydroxy-polychlorobiphenyls, -dibenzo-*p*-dioxins and -dibenzofurans with human transthyretin. *Chem-Biol Interact*, 88:7-21.
- Lanting CI (1999) Effects of perinatal PCB and dioxin exposure and early feeding mode on child development. Thesis. Rijksuniversiteit Groningen (ISBN 90-367-1002-2), The Netherlands.
- Lanting CI, Patandin S, Fidler V, Weisglas-Kuperus N, Sauer PJJ, Boersma ER & Touwen BCL (1998) Neurological condition in 42-months-old children in relation to pre- and postnatal exposure to polychlorinated biphenyls and dioxins. *Early Hum Develop*, 50:283-292.
- Larsen SB, Spano M, Giwercman A & Bonde JP (1999) Semen quality and sex hormones among organic and traditional Danish farmers. ASCLEPIOS Study Group. *Occup Environ Med*, 56:139-144.
- Larsson Å, Förlin L, Lindesjö E & Sandström O (1997) Monitoring of individual organism responses in fish populations exposed to pulp mill effluents. In: Rotura, New Zealand, Proc. 3rd Int. Conf. on Environmental Fate and Effects of Pulp and Paper Mill Effluents, November 1997.
- Larsson DGJ, Adolfsson-Erici M, Parkkonen J, Pettersson M, Berg AH, Olsson P-E & Förlin L (1999) Ethinylloestradiol—an undesired fish contraceptive? *Aquat Toxicol*, 45:91-97.
- Lasley BL & Overstreet JW (1998) Biomarkers for assessing human female reproductive health, an interdisciplinary approach. *Environ Health Perspect*, 106(Suppl 4):955-960.
- Lauber ME, Sarasin A & Lichtensteiger W (1997a) Transient sex differences of aromatase (CYP19) mRNA expression in the developing rat brain. *Neuroendocrinol*, 66:173-180.
- Lauber ME, Sarasin A & Lichtensteiger W (1997b) Sex differences and androgen-dependent regulation of aromatase (CYP19) mRNA expression in the developing and adult rat brain. *J Steroid Mol Biol*, 61:359-364.
- Laufer H, Ahl JSB & Sagi A (1993) The role of juvenile hormones in crustacean reproduction. *Am Zool*, 33:365-374.
- Laws SC, Carey SA, Kelce WR, Cooper RL & Gray LE Jr (1996) Vinclozolin does not alter progesterone receptor (PR) function *in vivo* despite inhibition of binding by its metabolites *in vitro*. *Toxicol*, 112:173-82.
- Laws SC, Carey SA, Ferrell JM, Bodman GJ & Cooper RL (2000a) Estrogenic activity of octylphenol, nonylphenol, bisphenol A and methoxychlor in rats. *Toxicol Sci*, 54:154-167.
- Laws SC, Ferrell JM, Stoker TE, Schmid J & Cooper RL (2000b) The effects of atrazine on female Wistar rats: An evaluation of the protocol for assessing pubertal development and thyroid function. *Toxicol Sci*, 58(2):366-376.
- Leatherland JF (1992) Endocrine and reproductive function in Great Lakes salmon. In: Colborn T & Clement C, eds. *Chemically-Induced Alterations in Sexual and Functional Development: The Wildlife/Human Connection*. Princeton, NJ: Princeton Scientific Publishing Co., pp. 129-145.
- Leatherland JF (1993) Field observations on reproductive and developmental dysfunction in introduced and native salmonids from the Great Lakes. *J Great Lakes Res*, 19:737-751.
- Leatherland JF (1994) Reflections on the thyroidology of fishes: from molecules to humankind. *Guelph Ichthyology Rev*, (2):1-67.
- Leatherland JF & Sonstegard RA (1978) Lowering of serum thyroxine and triiodothyronine levels in yearling coho salmon,

- Oncorhynchus kisutch*, by dietary Mirex and PCBs. J Fish Res Bd Can, 35:1285-1289.
- Leatherland JF & Sonstegard RA (1980) Seasonal changes in thyroid hyperplasia, serum thyroid hormone and lipid concentrations, and pituitary gland structure in Lake Ontario coho salmon, *Oncorhynchus kisutch* Walbaum and a comparison with coho salmon from Lakes Michigan and Erie. J Fish Biol, 16:539-562.
- Leatherland JF & Sonstegard RA (1982) Bioaccumulation of organochlorines by yearling coho salmon (*Oncorhynchus kisutch* Walbaum) fed diets containing Great Lakes coho salmon, and the pathophysiological responses of the recipients. Comp Biochem Physiol, 72C:91-100.
- Leatherland JF, Lin L, Down NE & Donaldson EM (1989) Thyroid hormone content of eggs and early developmental stages of three stocks of goitered coho salmon (*Oncorhynchus kisutch*) from the Great Lakes of North America, and a comparison with a stock from British Columbia. Can J Fish Aquat Sci, 46:2146-2152.
- Lebel G, Dodin S, Ayotte P, Marcoux S, Ferron LA & Dewailly E (1998) Organochlorine exposure and the risk of endometriosis. Fertil Steril, 69:221-228.
- Le Blanc G, Campbell P, den Besten P, Brown R, Chang E, Coats J, deFur P, Dhadialla T, Edwards J, Riddiford L, Simpson M, Snell T, Thorndyke M & Matsumura F (1999) In: deFur P, Crane M, Ingersoll C & Tattersfield L, eds. Endocrine Disruption in Invertebrates: Endocrinology, Testing and Assessment. Pensacola, FL: SETAC Press, pp. 23-106.
- LeBlanc GA, Mu X, Rider CV (2000) Embryo toxicity of the alkylphenol degradation product 4-nonylphenol to the crustacean *Daphnia magna*. Environ Health Perspect. 108:1133-1138.
- Lee P, Arndt P & Nickells KC (1999). Testicular abnormalities in male rats after lactational exposure to nonylphenols. Endocrine, 11:61-68.
- Lee RF (1991) Metabolism of tributyltin by marine animals and possible linkages to effects. Marine Environ Res, 32:29-35.
- Lee HP, Gourley L, Duffy SW, Esteve J, Lee J & Day NE (1991) Dietary effects on breast cancer risk in Singapore. Lancet, 337:1197-1200.
- Lee H-B, Peart TE (1995) Determination of 4-nonylphenol in effluent and sludge from sewage treatment plants. Anal Chem, 67:1976-1980.
- Lee H-B, Peart TE (1995) Occurrence of nonylphenol ethoxylates and their metabolites in Canadian pulp and paper mill effluents and sludge. Water Qual. Res J Can, 34:1-36.
- Lee H-B, Weng J, Peart TE, Maguire RJ (1998) Occurrence of alkylphenoxyacetic acids in Canadian sewage treatment plant effluents. Water Quality. Res J Can, 33:19-29.
- Lee H-B, Peart TE, Bennie DT, Maguire RJ (1997) Determination of nonylphenol polyethoxylates and their carboxylic acid metabolites in sewage treatment plant sludge by supercritical carbon dioxide extraction. J Chromatogr A 785:385-394.
- LeFleur GJ Jr (1998) Vitellogenins and vitellogenesis. In: Knobil E & Neill JD, eds. Encyclopedia of Reproduction. Vol. 4, pp. 985-993.
- Lega L, Ladwig G, Meresz O, Clement RE, Crawford G, Salemi R & Jones Y (1997) Quantitative determination of organic priority pollutants in sewage sludge by GC/MS, Chemosphere, 34:1705-1712.
- Legler J, Broekhof JLM, Brouwer A, Lanser PH, Murk AJ, van der Saag PT, Vethaak AD, Wester P, Zivkovic & van der Burg B (2000) A novel *in vivo* bioassay for (xeno-)estrogens using transgenic zebrafish. Environ Sci Technol, 24:497-510.
- Lemcke B, Behre HM & Nieschlag E (1997) Frequently subnormal semen profiles of normal volunteers recruited over 17 years. Intern J Androl, 20:144-152.
- Leonards PEG (1997) PCBs in mustelids: analysis, food chain transfer and critical levels. Ph.D. Thesis. Free University of Amsterdam, The Netherlands.
- Lephart ED (1996) A review of brain aromatase cytochrome P450. Brain Res Rev 22:1-26.
- Letcher RJ, Klasson Wehler E & Bergman Å (2000) Methyl sulfone and hydroxylated metabolites of polychlorinated biphenyls. In: Paasivirta J, ed. New Types of Persistent Halogenated Compounds, 3. Berlin, Springer-Verlag, pp. 315-359.
- Leung PCK & Steele GL (1992) Intracellular signaling in the gonads. Endocrinol Rev, 13:476-498.
- Li L, Xu L, Francke U & Cohen SN (1997) The TSG101 tumor susceptibility gene is located in chromosome 11 band p15 and is mutated in human breast cancer. Cell, 88:143-154.
- Licht M (1998) Retrospektive Untersuchung der Zwischen 1956 und 1995 in der Abteilung für Andrologie des Universitätskrankenhauses Hamburg-Eppendorf Erhobenen Spermioogramme. Dissertation FB Medizin. Universität Hamburg, Germany.
- Liem AKD, Fürst P & Rappe C (2000) Exposure of populations to dioxins and related compounds. Food Addit Contam, 17:241-259.
- Lilienthal HL, Weinand-Härer A, Winterhoff H & Winneke G (1997) Effects of maternal exposure to 3,3',4,4'-tetrachlorobiphenyl or propylthiouracil in rats trained to discriminate apomorphine from saline. Toxicol Appl Pharmacol, 146:162-169.
- Liljegren G, Hardell L, Lindstrom G, Dahl P & Magnuson A (1998) Case-control study on breast cancer and adipose tissue concentrations of congener specific polychlorinated biphenyls, DDE and hexachlorobenzene. Eur J Cancer Prev, 7:135-140.
- Lindholst C, Pedersen KL & Pedersen SN (2000) Estrogenic response of bisphenol A in rainbow trout (*Oncorhynchus mykiss*). Aquatic Toxicol, 48:87-94.
- Lindsey S & Wilkinson MF (1996) Homeobox genes and male reproductive development. J Assist Reprod Genet, 13:182-192.
- Lindström G, Wingfors H, Dam M & von Bavel B (1999) Identification of 19 polybrominated diphenyl ethers (PBDEs) in long-finned pilot whale (*Globicephala melas*) from the atlantic. Arch Environ Contam Toxicol, 36:355-363.
- Linzey AV & Grant DM (1994) Characteristics of a white footed mouse (*Peromyscus leucopus*) population inhabiting a polychlorinated biphenyls contaminated site. Arch Environ Contam Toxicol, 27:521-526.
- Lipworth L (1995) Epidemiology of breast cancer. Eur J Cancer Prev, 4:7-30.
- Lomat L, Galbart G, Quastel MR, Polyakov S, Okeanov A & Rozin S (1997) Incidence of childhood disease in Belarus associated with Chernobyl accident. Environ Health Perspect, 105(Suppl 6):1529-1532.
- Longcore JR, Samson FB, Kreitzer JF & Spann JW (1971) changes in mineral composition of eggshells from black ducks and mallards fed DDE in the diet. Bull Environ Contam Tox, 6:345-350.
- Longnecker MP, Gladen BC, Patterson DG Jr & Rogan WJ (2001) Polychlorinated biphenyl (PCB) exposure in relation to thyroid hormone levels in neonates. Epidemiology, 11(3):249-254.
- Loomis AK & Thomas P (1999) Binding characteristics of estrogen receptor (ER) in Atlantic croaker (*Micropogonias undulatus*) testis:

- different affinity for estrogens and xenobiotics from that of hepatic ER. *Biol Reprod*, 61:51-60.
- Loomis AK & Thomas P (2000) Effects of estrogens and xenoestrogens on androgen production by Atlantic croaker testes *in vitro*: evidence for a nongenomic action mediated by an estrogen membrane receptor. *Biol Reprod*, 62:995-1004.
- López-Carrillo L, Blair A, López-Cervantes M, Cebrián M, Rueda C, Reyes R, Mohar A & Bravo A (1997) Dichlorodiphenyltrichloroethane serum levels and breast cancer risk: A case-control study from Mexico. *Cancer Res*, 57:3728-3732.
- Lorentzon A, Moon TW, Kennedy SW & Fox GA (1999) Relationships between environmental organochlorine contaminant residues, plasma corticosterone concentrations, and intermediary metabolic enzyme activities in Great Lakes herring gull embryos. *Environ Health Perspect*, 107:179-186.
- Lu LIW, Anderson KE, Grady JJ & Nagamani M (1996) Effects of soya consumption for one month on steroid hormones in premenopausal women—implications for breast cancer risk reduction. *Cancer Epidemiol Biomarkers Prev*, 5:63-70.
- Lucas AD, Jones AD, Goodrow MH, Saiz SG, Blewett C, Seiber JN & Hammock BD (1993) Determination of atrazine metabolites in human urine: development of a biomarker of exposure. *Chem Res Toxicol*, 6:107-116.
- Luconi M, Bonaccorsi L, Forti G & Baldi E (2001) Effects of estrogenic compounds on human spermatozoa: evidence for interaction with a nongenomic receptor for estrogen on human sperm membrane. *Mol Cell Endocrinol*, 178(1-2):39-45.
- Ludwig JP (1984) Decline, resurgence and population dynamics of Michigan and Great Lakes double-crested cormorants. *Jack-Pine Warbler*, 62:91-102.
- Ludwig JP, Giesy JP, Summer CL, Bowerman WW, Aulerich R, Bursian S, Auman HJ, Jones PD, Williams LL, Tillitt DE & Gilbertson M. (1993) A comparison of water quality criteria for the Great Lakes based on human and wildlife health. *J Great Lakes Res*, 19:789-807.
- Lund B-O (1994) *In vitro* adrenal bioactivation and effects on steroid metabolism of DDT, PCBs and their metabolites in the grey seal (*Halichoerus grypus*). *Environ Toxicol Chem*, 13:911-917.
- Lund B-O & Lund JJ (1995) Novel involvement of a mitochondrial steroid hydroxylase (P450c11) in xenobiotic metabolism. *Biol Chem*, 270:20895-20897.
- Lund B-O, Bergman Å & Brandt I (1988) Metabolic activation of toxicity of DDT-metabolite, 3-methylsulphonyl-DDE, in the adrenal zona fasciculata in mice. *Chem-Biol Interactions*, 65:25-40.
- Lund J, Brandt I, Poellinger L, Bergman Å, Klasson-Wehler E & Gustafsson J-Å (1985) Target cells for the polychlorinated biphenyl metabolite 4,4'-bis(methylsulphonyl)-2,2',5,5'-tetrachlorobiphenyl: Characterization of high-affinity binding in rat and mouse lung cytosol. *Mol Pharmacol*, 27:314-323.
- Lundholm CE (1980) Comparison of *p,p*-DDE and *o,p*-DDE on eggshell thickness and Ca binding activity of shell gland in ducks. *Acta Pharmacol Toxicol*, 47:377-384.
- Lundholm CE (1982) Effect of *p,p*-DDE administered *in vivo* and *in vitro* on Ca²⁺ binding and Ca²⁺-Mg²⁺-ATPase activity in egg shell gland mucosa of ducks. *Acta Pharmacol Toxicol*, 50:121-129.
- Lundholm CE (1984a) Ca content of duck eggshell gland mucosa homogenate and the rate of Ca²⁺ binding to its subcellular fractions during and after the formation of the eggshell. *Comp Biochem Physiol B*, 77:655-653.
- Lundholm CE (1984b) Comparison of the effect of DDE on the Ca metabolism of the eggshell gland and its subcellular fractions of the duck and domestic fowl. *Acta Pharmacol Toxicol*, 54:400-407.
- Lundholm CE (1984c) Effect of DDE on the Ca metabolism of the duck eggshell gland and its subcellular fractions: Relations to the functional stage. *Comp Biochem Physiol C*, 78:5-12.
- Lundholm CE (1985) Relation between Ca metabolism and ATPase activities in the subcellular fractions from duck eggshell gland mucosa after DDE administration during different stages of eggshell formation. *Comp Biochem Physiol C*, 82:1-16.
- Lundholm CE (1987) Thinning of eggshells in birds by DDE: Mode of action on the eggshell gland. *Comp Biochem Physiol C*, 88:1-22.
- Lundholm CE (1988) The effects of DDE, PCB and chlordane on the binding of progesterone to its cytoplasmic receptor in the eggshell gland mucosa of birds and the endometrium of mammalian uterus. *Comp Biochem Physiol C*, 89:361-368.
- Lundholm CE (1993) Inhibition of prostaglandin synthesis in eggshell gland mucosa as a mechanism for *p,p'*-DDE-induced eggshell thinning in birds—a comparison of ducks and domestic fowls. *Comp Biochem Physiol C. Pharmacol Toxicol*, 106:389-394.
- Lundholm CE (1994) Changes in the levels of different ions in the eggshell gland lumen following *p,p'*-DDE-induced eggshell thinning in ducks. *Comp Biochem Physiol C Pharmacol Toxicol Endocrinol*, 109:57-62.
- Lundholm CE & Bartonek M (1991) A study of the effects of *p,p'*-DDE and other related chlorinated hydrocarbons on inhibition of platelet aggregation. *Arch Toxicol*, 65:570-574.
- Lundholm CE & Bartonek M (1992) Effects of *p,p'*-DDE and some other chlorinated hydrocarbons on the formation of prostaglandins by the avian eggshell gland mucosa. *Arch Toxicol*, 66:387-391.
- Lundholm CE & Mathson K (1983) The inhibitory effect of some chlorinated hydrocarbon pesticides on the ATP-dependent Ca²⁺ binding of the particulate fraction of the eggshell gland mucosa cells. *Acta Pharmacol Toxicol*, 52:390-394.
- Luross JM, Alaei M, Sergeant DB, Whittle DM & Solomon KR (2000) Spatial and temporal distribution of polybrominated diphenyl ethers in Lake trout from the Great Lakes. *Organohalogen Compounds*, 47:73-76.
- Luster MI, Hayes HT, Korach K, Tucker AN, Dean JH, Greenlee WF & Boorman GA (1984) Estrogen immunosuppression is regulated through estrogenic responses in the thymus. *J Immunol*, 133:110-116.
- Lutz I & Kloas W (1999) Amphibians as a model to study endocrine disruptors. I: Environmental pollution and estrogen receptor binding. *Sci Total Environ*, 225:49-57.
- Luu B & Werner W (1995) Sterols that modify moulting in insects. *Pesticide Sci*, 46:49-53.
- Lye CM, Frid CJJ, Gill ME & McCormick D (1997) Abnormalities in the reproductive health of flounder *Platichthys flesus* exposed to effluent from a sewage treatment works. *Mar Pollut Bull*, 34:34-41.
- Lye CM, Frid CLJ & Gill ME (1998) Seasonal reproductive health of flounder *Platichthys flesus* exposed to sewage effluent. *Mar Ecol Progr Ser*, 170:249-260.
- Lye CM, Frid CLJ, Gill ME, Cooper DW & Jones DM (1999) Estrogenic alkylphenols in fish tissues, sediments and waters from the U.K. Tyne and Tees estuaries. *Environ Sci Technol*, 33:1009-

1014.

- Ma K, Inglis JD, Sharkey A, Bickmore WA, Hill RE, Prosser EJ, Speed RM, Thomson EJ, Jobling M, Taylor K, Wolfe J, Cooke HJ, Hargreave TB & Chandley A (1993) AY chromosome gene family with RNA-binding protein homology: Candidates for the azoospermia factor AZF controlling human spermatogenesis. *Cell*, 75:1287-1295.
- Ma Q & Whitlock JP Jr (1997) A novel cytoplasmic protein that interacts with the Ah receptor, contains tetraricopeptide repeat motifs, and augments the transcriptional response to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. *J Biol Chem*, 272:8878-8884.
- Mably TA, Moore RW, Goy RW & Peterson RE (1992) *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*, 114:108-117.
- Mac MJ & Edsall CC (1991) Environmental contaminants and the reproductive success of lake trout in the Great Lakes: An epidemiological approach. *J Toxicol Environ Health*, 33:375-394.
- Mac MJ, Schwartz TR, Edsall CC & Frank AM (1993) Polychlorinated biphenyls in Great Lakes trout and their eggs: Relations to survival and congener composition 1979-1988. *J Great Lakes Res*, 19:752-765.
- Mackay D, Fraser A (2000) Bioaccumulation of persistent organic chemicals: Mechanisms and models. *Environmental Pollution*, 110(3):375-391.
- Mackay D (2001) *Multimedia Environmental Models: The Fugacity Approach*. Boca Raton, FL: Lewis Publishers.
- MacLatchy DL & Van Der Kraak GJ (1995) The phytoestrogen 17 β -estradiol alters the reproductive endocrine status of goldfish. *Toxicol Appl Pharmacol*, 134:305-312.
- MacLatchy D, Peters L, Nickle J & Van Der Kraak G (1997) Exposure to 17 β -estradiol alters the endocrine status of goldfish differently than 17 α -estradiol. *Environ Toxicol Chem*, 16:1895-1904.
- Macleod J & Gold RZ (1951) The male factor in fertility and infertility. II: Spermatozoon counts in 1000 men of known fertility and 1000 cases of infertile marriage. *J Urol*, 66:436-449.
- Macleod J & Wang Y (1979) Male fertility potential in terms of semen quality: a review of the past, a study of the present. *Fertil Steril*, 31:103-116.
- Mactutus CF & Tilson HA (1985) Evaluation of long-term consequences in behavioral and/or neural function following neonatal chlordecone exposure. *Teratology*, 31:177-186.
- Maden M (1993) The homeotic transformation of tails into limbs in *Rana temporaria* by retinoids. *Develop Biol*, 159:379-391.
- Madhukar BV, Brewster DW & Matsumura F (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 USA*, 81:7407-7411.
- Madsen SS, Mathiesen AB & Korsgaard B (1997) Effects of 17 β -estradiol and 4-nonylphenol on smoltification and vitellogenesis in Atlantic salmon (*Salmo salar*). *Fish Physiol Biochem*, 17:303-312.
- Maguire RJ (1999) Review of the persistence of nonylphenol and nonylphenol ethoxylates in aquatic environments. *Water Qual Res J Can*, 34:37-78.
- Mak P, Cruz FD & Chen S (1999) A yeast screen system for aromatase inhibitors and ligands for androgen receptor: Yeast cells transformed with aromatase and androgen receptor. *Environ Health Perspect*, 107:855-860.
- Makynen E, Kahl M, Jensen K, Tiede J, Wells K, Van Der Kraak G & Ankley K (2000) Effects of the mammalian antiandrogen vinclozolin on development and reproduction of the fathead minnow. *Aquatic Toxicol*, 48:461-475.
- Maltepe E, Schmidt JV, Baunoch D, Bradfield CA & Simon MC (1997) Abnormal angiogenesis and responses to glucose and oxygen deprivation in mice lacking the protein ARNT. *Nature*, 386:403-407.
- Manchester-Neesvig JB, Valters K & Sonzogni WC (2001) Comparison of polybrominated diphenyl ethers (PBDEs) and polychlorinated biphenyls (PCBs) in Lake Michigan salmonids. *Environ Sci Technol*, 35:1072-1077.
- Maness SC, McDonnell DP & Gaido KW (1998) Inhibition of androgen receptor-dependent transcriptional activity by DDT isomers and methoxychlor in HepG2 human hepatoma cells. *Toxicol Appl Pharmacol*, 151:135-142.
- Manz A, Berger J & Dwyer JH (1991) Cancer mortality among workers in chemical plant contaminated with dioxin. *Lancet*, 338:959-964.
- Marcomini A, Capel PD, Lichtensteiger T, Brunner PH, Giger W (1989) Behavior of aromatic surfactants and PCBs in sludge-treated soil and landfills. *J Environ Qual*, 18:523-528.
- Marcquenski SV & Brown SB (1997) Early mortality syndrome in salmonid fishes from the Great Lakes. In: Rolland RM, Gilbertson M & Peterson RE, eds. *Chemically Induced Alterations in Functional Development and Reproduction of Fishes*. SETAC Technical Publications Series. Pensacola, FL: SETAC Press, pp. 135-152.
- Marcus M, Kiely J, Xu F, McGeehin M, Jackson R & Sinks T (1998) Changing sex ratio in the United States, 1969-1995. *Fertil Steril*, 70:270-273.
- Marmot ME & Wadsworth MEJ (1997) Fetal and early childhood environment: long-term health implications. *Brit Med Bull*, 53(1):669-683.
- Martineau D, De Guise S, Fournier M, Shugart L, Girard C, Lagacé A & Béland P (1994) Pathology and toxicology of beluga whales from the St. Lawrence Estuary, Québec, Canada. Past, present and future. *Sci Total Environ*, 154:201-215.
- Matsumoto A & Ishii S (1997) *Atlas of Endocrine Organs: Vertebrates and Invertebrates*. Berlin: Springer-Verlag.
- Matthews JB, Celius T, Halgren R, Zacharewski T (2000) Differential estrogen receptor binding of estrogenic substances: a species comparison. *J Steroid Biochem. Mol Biol*, 74(4):223-234.
- Matthews JB, Clemons JH, Zacharewski TR (2001) Reciprocal mutagenesis between human alpha (L349, M528) and rainbow trout (M317, I496) estrogen receptor residues demonstrates their importance in ligand binding and gene expression at different temperatures. *Mol Cell Endocrinol*, 183(1-2):127-139.
- Matthiessen P (1998) Effects on fish of estrogenic substances in English rivers. In: Kendall R, Dickerson J, Geisy J & Suk W, eds. *Principles and Processes for Evaluating Endocrine Disruption in Wildlife*. Pensacola, FL: SETAC Press, pp. 239-247.
- Matthiessen P & Gibbs PE (1998) Critical appraisal of the evidence

- for tributyltin-mediated endocrine disruption in molluscs. *Environ Toxicol Chem*, 17:37-43.
- Matthiessen P & Sumpter JP (1998) Effects of estrogenic substances in the aquatic environment. In: Braunbeck ET, Hinton DE & Streit B, eds. *Fish Ecotoxicology*. Basel: Birkhäuser Verlag, pp. 319-335.
- Matthiessen P, Allen YT, Allchin CR, Feist SW, Kirby MF, Law RJ, Scott AP, Thain JE & Thomas KV (1998) Oestrogenic endocrine disruption in flounder (*Platichthys flesus* L.) from United Kingdom estuarine and marine waters. Science Series Technical Report no. 107, Lowestoft: Centre for Environment, Fisheries and Aquaculture Science, pp. 48.
- Matthiessen P, Reynoldson T, Billingham Z, Brassard D, Cameron P, Chandler G, Davies I, Horiguchi T, Mount D, Oehlmann J, Pottinger T, Sibley P, Thompson H & Vethaak A (1999) Field assessment for endocrine disruption in invertebrates. In: deFur P, Crane C, Ingersoll C & Tattersfield L, eds. *Endocrine Disruption in Invertebrates: Endocrinology, Testing, and Assessment*. Pensacola, FL: SETAC Press, pp. 199-270.
- Mattson M & Helle E (1995) Reproductive recovery and PCBs in Baltic seal populations. *Int J Dev Biol*, 39: 703-704.
- Mawhinney MG & Neubauer BL (1979) Actions of estrogen in the male. *Invest Urol*, 16:409-420.
- Maxwell PH, Dachs GU, Gleadle JM, Nicholis LG, Harris AL, Stratford IJ, Hankinson O, Pugh CW & Ratcliffe PJ (1997) Hypoxia-inducible factor-1 modulates gene expression in solid tumors and influences both angiogenesis and tumor growth. *Proc Natl Acad Sci USA*, 94:8104.
- Mayani A, Barel S, Soback S & Almagor M (1997) Dioxin concentration in women with endometriosis. *Hum Reprod*, 12:373-375.
- McArthur MLB, Fox GA, Peakall DB & Philogène BJR (1983) Ecological significance of behavioral and hormonal abnormalities in breeding Ring Doves fed an organochlorine chemical mixture. *Arch Environ Contam Toxicol*, 12:343-353.
- McCann TO & Myers RE (1970) Endometriosis in Rhesus monkeys. *Am J Obstet Gynecol*, 106:516.
- McClinton S, Miller ID & Eremin O (1990) An immunohistochemical characterization of the inflammatory cell infiltrate in benign and malignant prostatic disease. *Br J Cancer*, 61:400-403.
- McConnell LL, LeNoir JS, Datta S & Seiber JN (1998) Wet deposition of current-use pesticides in the Sierra Nevada Mountain Range, California, USA. *Environ Toxicol Chem*, 17:1908-1916.
- McIntyre BS, Barlow NJ, Wallace DG, Maness SC, Gaido KW. and Foster PMD (2000) Effects of *in utero* exposure to linuron on androgen dependent reproductive development in the male Crl:CD(SD)BR rat. *Toxicol Appl Pharmacol*, 167:87-99.
- McKinney JD & Waller CL (1994) Polychlorinated biphenyls as hormonally active structural analogues. *Environ Health Perspect*, 102:290.
- McKinney CL, Celestial DM (1996) Modified survival, growth, and reproduction in an estuarine mysid (*Mysidopsis bahia*) exposed to a juvenile hormone analogue through a complete life cycle. *Aquatic Toxicol* 35:11-20.
- McLachlan JA & Korach KS, eds. (1995) Symposium on estrogens in the environment. III: Global health implications. *Environ Health Perspect*, 103(Suppl 7):3-178.
- McMahon DR, Kramer SA & Husmann DA (1995) Antiandrogen induced cryptorchidism in the pig is associated with failed gubernacular regression and epididymal malformations. *J Urol*, 154:553-557.
- McMaster ME, Van Der Kraak GJ, Portt CB, Munkittrick KR, Sibley PK, Smith IR & Dixon DG (1991) Changes in hepatic mixed-function oxidase (MFO) activity, plasma steroid levels and age at maturity of a white sucker (*Catostomus commersoni*) population exposed to bleached kraft pulp mill effluent. *Aquat Toxicol*, 21:199-218.
- McMaster ME, Portt CB, Munkittrick KR & Dixon DG (1992) Milt characteristics, reproductive performance and larval survival and development of white sucker exposed to bleached kraft pulp mill effluent. *Ecotoxicol Environ Saf*, 23:103-117.
- McMaster ME, Van Der Kraak GJ & Munkittrick KR (1995) Exposure to bleached kraft pulp mill effluent reduces the steroid biosynthetic capacity of white sucker ovarian follicles. *Comp Biochem Physiol*, 112C:169-178.
- McMichael-Phillips DF, Harding C, Morton M, Roberts SA, Howell A, Patton CS & Bundred NJ (1998) Effects of soy protein supplementation on epithelial proliferation in the histologically normal breast. *Am J Clin Nutr*, 68:1431S-1435S.
- McNabb FMA (1993) *Thyroid Hormones*. Englewood Cliffs, NJ: Prentice Hall.
- Meaney MJ, Aitken DH, Van Berkel C, Bhatnager S & Sapolsky RM (1988) Effect of neonatal handling on age-related impairments associated with the hippocampus. *Science*, 239:766-768.
- Meares EM Jr (1998) Prostatitis and related disorders. In: Walsh PC, ed. *Campbell's Urology*, Seventh Edition. Philadelphia, PA: Saunders.
- Meerts IATM (2001) *In Vitro* and *in Vivo* Interactions of Organohalogenes with the Endocrine System—The Role of Metabolites and Implications for Human Health. The Department of Toxicology, Wageningen University, Wageningen, The Netherlands, Ph.D. Thesis.
- Meerts IATM, Letcher RJ, Hoving S, Marsh G, Bergman Å, Lemmen JG, van der Burg B & Brouwer A (2001) *In vitro* estrogenicity of polybrominated diphenyl ethers (PBDEs), hydroxylated PBDEs (OH-PBDEs) and several polybrominated bisphenol A compounds. *Environ Health Perspect*, 109:399-407.
- Mees MM, Cuijpers CEJ & Piersma AH (1997) Is sperm quality actually declining? A literature survey. Report No. 65 00 30-001. Bilthoven, The Netherlands: National Institute of Public Health and the Environment.
- Meewen BS & Alves SE (1999) Estrogen actions in the central nervous system. *Endocrinol Rev*, 20:279-307.
- Meironyté D, Noren K & Bergman A (1999) Analysis of polybrominated diphenyl ethers in Swedish human milk. A time-related trend study, 1972-1997. *J Toxicol Environ Health, Part A* 58:329-341.
- Meironyté Guvenius D, Bergman A & Noren K (2001) Polybrominated diphenyl ethers in Swedish human liver and adipose tissue. *Arch Environ Contam Toxicol*, 40:564-570.
- Meironyté Guvenius D (2002) Organohalogen contaminants in humans with emphasis on polybrominated diphenyl ethers, Karolinska institutet, Stockholm, Sweden, ISBN 91-7349-140-3, PhD Thesis.
- Meites J, Lu KH, Wuttke W, Welsch CW, Nagasawa H & Quadri SK (1972) Recent studies on functions and controls of prolactin secretion in rats. *Rec Prog Horm Res*, 28:471-526.

- Mellanen P, Petänen T, Lehtimäki J, Mäkelä S, Bylund G, Holmbom B, Mannila E, Oikari A & Santti R (1996) Woodderived estrogens: studies *in vitro* with breast cancer cell lines and *in vivo* in trout. *Toxicol Appl Pharmacol*, 136:381-388.
- Mellanen P, Soimasuo M, Holmbom B, Oikari A & Santti R (1999) Expression of the vitellogenin gene in the liver of juvenile whitefish (*Coregonus lavaretus* L. s.l.) exposed to effluents from pulp and paper mills. *Ecotoxicol Environ Saf*, 43:133-137.
- Mellert W (1995) Report: Carcinogenicity Study with Reg. No. 83248 (Ninoclozolin) in Rats. Administration in the Diet for 24 Months. Unpublished report from BASF AG, Ludwigshafen, Germany. Submitted to WHO by BASF AG, Ludwigshafen, Germany. Cited in *Pesticide Residues in Food, 1995, Part II - Toxicological and Environmental, IPCS*, pp. 379-404.
- Ménard S, Aiello P, Tagliabue E, Rumio C, Lollini PL, Colnaaghi MI & Blasari A (2000) Tamoxifen chemoprevention of a hormoneindependent tumor in the proto-neu transgenic mice model. *Cancer Res*, 60:273-275.
- Mendonca GAS, Eluf-Neto J, Andrada-Serpa MJ, Carmo PAO, Barreto HHC, Inomata ONK, et al. (1999) Organochlorines and breast cancer: a case-control study in Brazil. *Int J Cancer*, 83:596-600.
- Menichni-Fabris F, Rossi P, Palego P, Simi S; & Turchi P (1996) Declining sperm count in Italy during the past 20 years. *Andrologia*, 28:304.
- Mensah-Nyagan AG, Do-Rego JL, Beaujean D, Luu-The V, Pelletier G & Vaudry H (1999) Neurosteroids: Expression of steroidogenic enzymes and regulation of steroid biosynthesis in the central nervous system. *Pharmacol Rev*, 51:63-81.
- Mesiano S, Katz SL, Lee JY & Jaffe RB (1999) Phytoestrogens alter adrenocorticotrophic function: genistein and daidzein suppress glucocorticoid and stimulate androgen production by cultured adrenal cortical cells. *J Clin Endocrinol Metab*, 84:2443-2448.
- Messina MJ, Persky V, Stechell KDR & Barnes S (1994) Soy intake and cancer risk: A review of the *in vitro* and *in vivo* data. *Nutr Cancer*, 21:113-131.
- Metcalf RL (1973) A century of DDT. *J Agr Food Chem*, 21:511-519.
- Meyer HHD (1999) Comparative aspects of estrogen biosynthesis and metabolism and the endocrinological consequences in different animal species. In: Oettel M & Schillinger E, eds. *Estrogens and Antiestrogens II*. Berlin: Springer-Verlag, pp. 575-602.
- Meyer R (1897) Über die genese der cystandenome und adenomyome des uterus, mit demonstationene. *Zeit Geburtch Gynakol*, 37:327.
- Meyer R (1925) Beitrage zur lehre von der adenomyosis uteri und der adenofibrosis peritonealis. *Zeit Geburtch Gynakol*, 89:469.
- Michalek JE, Ketchum NS & Check IJ (1999) Serum dioxin and immunologic response in veterans of Operation Ranch Hand. *Am J Epidem*, 149:1038-1046.
- Michielsen CCCPC, van Loveren H & Vos JG (1999) The role of the immune system in hexachlorobenzene-induced toxicity. *Environ Health Perspect*, 107(Suppl 5):783-792.
- Migliari R, Muscas G, Murru M, Verdacchi T, De Benedetto G & De Angelis M (1999) Antiandrogens: a summary review of pharmacodynamic properties and tolerability in prostate cancer therapy. *Arch Ital Urol Androl*, 71:293-302.
- Miki Y, Swensen J, Shattuck ED, Futreal PA, Harshman K, Tavtigian S, Liu Q, Cochran C, Bennett LM & Ding W (1994) A strong candidate for the breast and ovarian cancer susceptibility gene BRCA1. *Science*, 266:66-71.
- Miles-Richardson SR, Pierens SL, Nichols KM, Kramer VJ, Snyder EM, Snyder SA, Render JA, Fitzgerald SD, Biesy JP (1999) Effects of waterborne exposure to 4-nonylphenol and nonylphenol ethoxylate on secondary sex characteristics and gonads of fathead minnows (*Pimephales promelas*). *Environ Res Sect A*, 80:S122-137.
- Milham S (1993) Unusual sex ratios of births to carbon ster fathers. *Am J Ind Med*, 23:829-831.
- Miller DS, Kinter WB & Peakall DB (1976) Enzymatic basis for DDE-induced eggshell thinning in a sensitive bird. *Nature*, 259:122-124.
- Miller KL, Fernandes TF & Read PA (1999) The recovery of populations of dogwhelks suffering from imposex in the Firth of Forth 1987-1997/98. *Environ Pollut*, 106:183-192.
- Millikan R, DeVoto E, Duell EJ, Tse CHK, Savitz DA, Beach J, Edmiston S, Jackson S & Newman B (2000) Dichlorodiphenyldichloroethene, polychlorinated biphenyls and breast cancer among African-American and white women in North Carolina. *Cancer Epidemiol Biomark Prev*, 9:1233-1240.
- Mills JL, Stolley DD, Davies J & Moshang T (1981) Premature thelarche. Natural history and etiologic investigation. *Am J Dis Child*, 135:743-745.
- Minier C, Levy F, Rabel D, Bocquene G, Godefroy D, Burgeot T & Leboulenger F (2000) Flounder health status in the Seine Bay. A multibiomarker study. *Mar Environ Res*, 50:373-377.
- Mitchell SH & Kennedy S (1992) Tissue concentrations of organochlorine compounds in common seals from the coast of Northern Ireland. *Sci Total Environ*, 115:163-177.
- Mocarelli P, Brambilla P, Gerthoux PM, Patterson DG Jr & Needham LL (1996) Change in sex ratio with exposure to dioxin. *Lancet*, 348:409.
- Mocarelli P, Brambilla P, Gerthoux P, Ferrari E, Dassi C, Copreni E, Cazzaniga Lomonata G, Bertona M & Tramacere P (1999) Human data derived from the Seveso Accident. 19th International Symposium on halogenated Environmental Organic Pollutants and POP's. September 12-17, 1999, Venice, Italy. *Dioxin '99*. 44:333-335.
- Mocarelli P, Gerthoux PM, Ferrari E Jr, Patterson DG, Kieszak SM, Brambilla P, Vincoli N, Signorini S, Tramacere P, Carreri V, Sampson EJ & Turner WE. (2000) Paternal concentrations of dioxin and sex ratio of offspring. *Lancet*, 355:1858-1863.
- Moger WH & Geschwind H (1972) The action of prolactin on the sex accessory glands of the male rat. *Proc Soc Exp Biol Med*, 141:1017-1021.
- Moilanen R, Pyysalo H, Wickström K & Linko R (1982) Time Trends of Chlordane, DDT, and PCB Concentrations in Pike (*Esox lucius*) and Baltic Herring (*Clupea harengus*) in the Turku Archipelago, Northern Baltic Sea for the Period 1971-1982. *Bull Environ Toxicol*, 29:334-340.
- Møller H (1996) Change in male: Female ratio among newborn infants in Denmark. *Lancet*, 348:828-829.
- Møller H (1998) Trends in sex-ratio, testicular cancer and male reproductive hazards: Are they connected? *APMIS*, 106:232-238.
- Møller H, Weidner IS (1999) Epidemiology of cryptorchidism and hypospadias. *Epidemiology*, 10(4):364-369.
- Monod G (1985) Egg mortality of Lake Geneva charr (*Salvelinus alpinus* L.) contaminated with PCB and DDT derivatives. *Bull Environ Contam Toxicol*, 35:531-536.
- Monosson E, Kelce WR, Lambright C, Ostby J & Gray LE Jr

- (1999) Peripubertal exposure to the antiandrogenic fungicide, vinclozolin, delays puberty, inhibits the development of androgen-dependent tissues, and alters androgen receptor function in the male rat. *Toxicol Ind Health*, 15:65-79.
- Moore A & Waring CP (1998) Mechanistic effects of a triazine pesticide on reproductive endocrine function in mature male Atlantic salmon (*Salmo salar* L.) parr. *Pestic Biochem Physiol*, 62:41-50.
- Moore JW & Bulbrook RD (1988) The epidemiology and function of sex hormone-binding globulin. In: Clarke JR, ed. *Oxford Reviews of Reproductive Biology*. Oxford: Oxford University Press, pp. 180-236.
- Moorman WJ, Cheever KI, Skaggs SR, Clark JC, Turner TW, Marlow KL & Schrader SM (2000) Male adolescent exposure to endocrine-disrupting pesticides: Vinclozolin exposure in peripubertal rabbits. *Andrologia*, 32:285-293.
- Morrison H, Savitz D, Semenciw R, Hulka B, Mao YL, Morrison D & Wigle D (1993) Farming and prostate cancer mortality. *Am J Epidemiol*, 137:270-280.
- Morse DC, Groen D, Veerman M, Van Amerongen CJ, Koeter HBWM, Smits van Prooije AE, Visser TJ, Koeman JH & Brouwer A (1993) Interference of polychlorinated biphenyls in hepatic and brain thyroid hormone metabolism in fetal and neonatal rats. *Toxicol Appl Pharmacol*, 122:27-33.
- Morse DC, Klasson-Wehler E, Wesseling W, Koeman JH & Brouwer A (1996) Alterations in rat brain thyroid hormone status following pre- and postnatal exposure to polychlorinated biphenyls (Aroclor 1254). *Toxicol Appl Pharmacol*, 136:269-279.
- Morton MS, Chan PSF, Cheng C, Blacklock N, Matos-Ferreira A, Abranches-Monteiro L, Correia R, Lloyd S & Griffiths K (1997) Lignans and isoflavonoids in plasma and prostatic fluid in men: samples from Portugal, Hong Kong and the UK. *Prostate*, 32:122-128.
- Moss AR, Osmond D, Bacchetti P, Torti FM & Gurgin V (1986) Hormonal risk factors in testicular cancer. A case-control study. *Am J Epidemiol*, 124:39-52.
- Mount DI & Anderson-Carnahan L (1988) EPA/600/3-88/034. Duluth, MN: U.S. Environmental Protection Agency.
- Moye HA (1999a) Enzyme-linked immunosorbent assay (ELISA). In: Fong WG, Seiber JN & Toth JP, eds. *Pesticide Residues in Foods: Methods, Techniques and Regulation*. New York: Wiley Interscience, pp. 211-248.
- Moye HA (1999b) Emerging methods: Extraction and cleanup. In: Fong WG, Moye HA, Seiber JN & Toth JP, eds. *Pesticide Residues in Foods: Methods, Techniques, and Regulations*. New York: Wiley Interscience, pp. 139-209.
- Moysich KB, Ambosone CB, Vena JE, Shields PG, Mendola P, Kostyniak P, Greizerstein H, Graham S, Marshall JR, Schisterman EF & Freudenheim JL (1998) Environmental organochlorine exposure and postmenopausal breast cancer risk. *Cancer Epidemiol Biomark Prev*, 7:181-188.
- MRC (1995) IEH Assessment on Environmental Oestrogens: Consequences to Human Health and Wildlife. Leicester, UK: Medical Research Council Institute for Environment and Health.
- Mu X, LeBlanc GA (2002) Environmental antiandrogens alter embryo development in the crustacean *Daphnia magna*. *J Exp Zool*, 292:287-292.
- Muir DC, Jones PD, Karlsson H, Koczansky K, Stern GA, Kannan K, Ludwig JP, Reid H, Robertson CJ, Giesy JP (2002) Toxaphene and other persistent organochlorine pesticides in three species of albatrosses from the north and south Pacific Ocean. *Environ Toxicol Chem*, 21(2):413-423.
- Müller MD, Schlabach M & Oehme M (1992) Fast and precise determination of hexachlorocyclohexane enantiomers in environmental samples using chiral high resolution gas chromatography. *Environ Sci Technol*, 25:566-569.
- Munkittrick KR, McMaster, ME, McCarthy L, Servos M & Van Der Kraak G (1998) An overview of recent studies on the potential of pulp-mill effluents to alter reproductive parameters in fish. *J Toxicol Environ Health B*, 1(4):347-371.
- Munkittrick KR, Portt CB, Van Der Kraak GJ, Smith IR & Rokosh DA (1991) Impact of bleached kraft mill effluent on population characteristics, liver MFO activity, and serum steroid levels of a Lake Superior white sucker (*Catostomus commersoni*) population. *Can J Fish Aquat Sci*, 48:1371-1380.
- Munkittrick KR, Van Der Kraak GJ, McMaster ME & Portt CB (1992a) Response of hepatic MFO activity and plasma sex steroids to secondary treatment of bleached kraft pulp mill effluent and mill shutdown. *Environ Toxicol Chem*, 11:1427-1439.
- Munkittrick KR, Van Der Kraak G, McMaster M & Portt C (1992b) Reproductive dysfunction and MFO activity in three species of fish exposed to bleached kraft mill effluent at Jackfish Bay, Lake Superior. *Water Pollut Res J Canada*, 27:439-446.
- Munkittrick KR, Van Der Kraak GJ, McMaster ME, Portt CB, van den Heuvel MR & Servos MR (1994) Survey of receiving water environmental impacts associated with discharges from pulp mills. 2: Gonad size, liver size, hepatic EROD activity and plasma sex steroid levels in white sucker. *Environ Toxicol Chem*, 13:1089-1101.
- Mussalo-Rauhamaa H, Hasanen E, Pyysalo H, Antervo K, Kauppila R & Pantzar P (1990) Occurrence of beta-hexachlorocyclohexane in breast patients. *Cancer*, 66:2124-2128.
- Mylchreest E, Cattley RC & Foster PMD (1998) Male reproductive tract malformations in rats following gestational and lactational exposure to di(n-butyl) phthalate: An antiandrogenic mechanism? *Toxicol Sci*, 43:47-60.
- Mylchreest E, Sar M, Cattley C & Foster PM (1999) Distribution of androgen-regulated male reproductive development by DBP during late gestation in rats is different from flutamide. *Toxicol Appl Pharmacol*, 156:81-95.
- Nagayama J, Iida T, Hirakawa H, Matsueda T, Okamura K, Hasegawa M, Sato K, Ma HY, Yanagawa T & Igarashi H (1997) Effects of lactational exposure to chlorinated dioxins and related chemicals on human neonatal thyroid functions in Japanese babies. *Organohalogen Compounds*, 33:446-450.
- Nagayama J, Tsuji H & Takasuga T (2000) Comparison between brominated flame retardants and dioxins or organochlorine compounds in blood levels of Japanese adults. *Organohalogen Compounds*, 48:27-30.
- Nagel SC, vom Saal F, Thayer KA, Dhar MG, Boechler M & Welshons W (1997) Relative binding affinity-serum modified access (RBA-SMA) assay predicts the relative *in vivo* bioactivity of the xenoestrogens bisphenol A and octylphenol. *Environ Health Perspect*, 105:70-76.
- Nambu M, Watanabe H, Kim KM, Tanaka M, Mayumi M & Mikawa H (1991) Regulation of Fc gamma receptor subtype expression on a human eosinophilic leukemia cell line EoL-3:

- Participation of cAMP and protein kinase C in the effects of interferon-gamma and phorbol ester. *Cell Immunol*, 133:27-40.
- Narotsky MG, Weller EA, Chinchilli VM & Kavlock RJ (1995) Nonadditive developmental toxicity in mixtures of trichloroethylene, di(2-ethylhexyl) phthalate, and heptachlor in a 5 x 5 x 5 design. *Fundam Appl Toxicol*, 27:203-16.
- Naslund MJ, Strandberg JD & Coffey DS (1988) The role of androgens and estrogens in the pathogenesis of experimental nonbacterial prostatitis. *J Urol*, 140:1049-1053.
- Naylor CG, Miure JP, Adams WJ, Weeks JA, Castaldi FJ, Ogle LD & Romano RR (1992) Alkylphenol ethoxylates in the environment. *J Am Oil Chem*, 69:695-703.
- Nebert DW, Puga A & Vasilou V (1993) Role of the Ah receptor and the dioxin-inducible [Ah] gene battery in toxicity, cancer, and signal transduction. *Ann NY Acad Sci* 685:624-640.
- Needham LL, Gertoux PM, Patterson DG Jr, Brambilla P, Turner WE, Beretta C, Pirkle JL, Colombo L, Sampson EJ, Tramacere PL, Signorini S, Meazza L, Carreri V, Jackson RJ & Mocarelli P (1997) Serum dioxin levels in Seveso, Italy, population in 1976. *Teratog Carcinog Mutagen*, 17:225-240.
- Needham L & Sexton K (2000) Assessing children's exposure to hazardous environmental chemicals: an overview of selected research challenges and complexities. *J Exp Anal Environ Epidemiol*, 16:611-629.
- Negro-Vilar A (1999) Selective androgen receptor modulators (SARMS): A novel approach to androgen therapy. *J Clin Endocrinol Metab*, 84:3459-3461.
- Negro-Vilar A, Saad WA & McCann SM (1977) Evidence for the role of prolactin in prostate and seminal vesicle growth in immature male rats. *Endocrinol*, 100:729-737.
- Nelson AA & Woodward G (1949) Severe adrenal cortical atrophy (cytotoxic) and hepatic damage prolonged in dogs by feeding 2,2-bis (parachlorophenyl)-1,1-dichloroethane (DDD or TDE). *Arch Pathol*, 48:387-394.
- Nelson CM & Bunge RG (1974) Semen analysis: Evidence for changing parameters of male fertility potential. *Fertil Steril*, 25:503-507.
- Nestler JE (1993) Sex hormone-binding globulin: A marker for hyperinsulinemia and/or insulin resistance? *J Clin Endocrinol Metab*, 76:273-274.
- Neubert R, Maskow L, Webb J, Jacob-Muller U, Nogueira AC, Delgado I, Helge H & Neubert D (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*, 53:1995-2006.
- Neubert R, Maskow L, Delgado I, Helge H & Neubert D (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*, 56:421-426.
- Neuman E & Karas P (1988) Effects of pulp mill effluent on a Baltic coastal fish community. *Water Sci Technol*, 20:95-106.
- Neumann DA (1995) Immunotoxicity testing and risk assessment: Summary of a 1994 Workshop. *Food Chem Toxicol*, 33:887-894.
- Neumann DA, Crisp TM & Olin SS (1996) Mammary gland neoplasia. *Environ Health Perspect*, 104:912-914.
- Nevalainen MT, Valve WM, Makela SI, Blauer M, Tuohimaa PJ & Harkonen PL (1991) Estrogen and prolactin regulation of rat dorsal and lateral prostate in organ culture. *Endocrinol*, 129:612-622.
- Newbold RR, Bullock BC & McLachlan JA (1991) Uterine adenocarcinomas in mice following developmental treatment with estrogens: A model for hormonal carcinogenesis. *Cancer Res*, 50:7677-7681.
- Newbold RR, Banks EP, Bullock B & Jefferson WN (2001) Uterine adenocarcinoma in mice treated neonatally with genistein. *Cancer Res* 61:4325-4328.
- Nijhout NF (1994) *Insect Hormones*. First Edition. Princeton, NJ: Princeton University Press.
- Nijhout NF (1998) *Insect Hormones*. Second Edition. Princeton, NJ: Princeton University Press.
- Nimrod AC & Benson WH (1996) Estrogenic responses to xenobiotics in channel catfish (*Ictalurus punctatus*). *Mar Env Res*, 42:155-160.
- Nizzoli G, Del Corno G, Fara GM & Chiumello G (1986) Gynecomastia and premature thelarche in a school children population of northern Italy. *Acta Endocrinol Suppl*, 279:227-231.
- Noller KL, Blair PB, O'Brien PC & Mellon LJ (1988) Increased occurrence of autoimmune disease among women exposed *in utero* to diethylstilbestrol. *Fertil Steril*, 49:1080-1082.
- Nonaka K, Miura T & Peter K (1994) Recent fertility decline in Dariusleut Hutterites: an extension of Eaton and Mayer's Hutterite fertility study. *Hum Biol*, 66:411-420.
- Norén K & Meironyté D (2000) Certain organochlorine and organobromine contaminants in Swedish human milk in perspective of past 20-30 years. *Chemosphere*, 40:1111-1123.
- Norén K, Westrand C & Karpe F (1999) Distribution of PCBs, DDE, hexachlorobenzene and methylsulfonyl metabolites of PCB and DDE among lipoprotein and protein fractions of human blood plasma. *Organohalogen Compounds*, 44:209-212.
- Noriega NC & Hayes TB (2000) DDT congener effects on secondary sex coloration in the reed frog *Hyperolius argus*: a partial evaluation of the *Hyperolius argus* endocrine screen. *Comp Biochem Physiol B Biochem Mol Biol*, 126:231-237.
- Norman S & Litwack G (1998) *Hormones*, Second Edition, San Diego, CA: Academic Press.
- Norris DO (1983) Evolution of endocrine regulation of metamorphosis in lower vertebrates. *Am Zool*, 23:709-718.
- Norris DO (1996) *Vertebrate Endocrinology*. Second Edition. San Diego, CA: Academic Press.
- Norris DO (1997) *Vertebrate Endocrinology*, Third Edition. San Diego, CA: Academic Press.
- Norris DO (1999) Thyroid hormones in subavian vertebrates. In: *Encyclopedia of Reproduction*, Vol. 4. San Diego, CA: Academic Press, pp. 807-812.
- Norris DO, Carr JA, Summers CH & Featherston R (1997a) Interactions of androgens and estradiol on sex accessory ducts of larval tiger salamanders, *Ambystoma tigrinum*. *Gen Comp Endocrinol*, 106:348-355.
- Norris DO, Felt SB, Woodling JD & Dores RM (1997b) Immunochemical and histological differences in the interrenal axis of feral brown trout, *Salmo trutta*, in metal-contaminated waters. *Gen Comp Endocrinol*, 108:343-351.
- Norris DO, Donahue S, Dores RM, Lee JK, Maldonado TA, Ruth T & Woodling JD (1999) Impaired adrenocortical response to stress by brown trout, *Salmo trutta*, living in metal-contaminated

- waters of the Eagle River, Colorado. *Gen Comp Endocrinol*, 113:1-8.
- Norstrom RJ & Muir DCG (1994) Chlorinated hydrocarbon contaminants in Arctic marine mammals. *Sci Total Environ*, 154:107-128.
- North K & Golding J (2000) A maternal vegetarian diet in pregnancy is associated with hypospadias. *BJU Int*, 85:107-113.
- NRC (1990) Health Effects of Exposure to Low Levels of Ionizing Radiation. BEIR V. Washington, D.C.: National Research Council, National Academy Press.
- NRC (1993). Pesticides in the Diets of Infants and Children. Washington, D.C.: National Research Council, National Academy Press, 386 pages.
- NRC (1999) Hormonally Active Agents in the Environment. Washington, D.C.: National Research Council, National Academy Press, 414 pages.
- NTP (2001a) National Toxicology Program's Report of the Endocrine Disruptors Low Dose Peer Review. National Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC. Available: <http://ntpserver.niehs.nih.gov/htdocs/liason/LowDosePeerFinalrpt.pdf>
- NTP (2001b) 9th Report on Carcinogens, U.S. National Toxicology Program, Research Triangle Park, NC, USA. Available: <http://ehp.niehs.nih.gov/roc/>
- Oberdorster E, McClellan-Green P (2001) The neuropeptide APGWamide induces imposex in the mud snail, *Ilyanassa obsoleta*. *Peptides* 21:1323-1330.
- Odsjö T, Bignert A, Olsson M, Asplund L, Eriksson U, Håggberg L, Litzén K, de Wit C, Rappe C & Åslund K (1997) The Swedish environmental specimen bank—application in trend monitoring of mercury and some organohalogenated compounds. *Chemosphere*, 34:2059-2066.
- Odum J, Lefevre PA, Titensor S, Paton D, Routledge EJ, Beresford NA, Sumpter JP & Ashby J (1997) The rodent uterotrophic assay: critical protocol features, studies with nonyl phenols, and comparison with a yeast estrogenicity assay. *Regul Toxicol Pharmacol*, 25:176-188.
- OECD (1995a) Guidelines for the Testing of Chemicals. Repeated dose 28-day oral toxicity study in rodents, Guideline 407, adopted by the Council on 27th July 1995. Paris: Organization for Economic Cooperation and Development.
- OECD (1995b) Report of the OECD Workshop on Environmental Hazard/Risk Assessment, Paris: Organisation for Economic Cooperation and Development.
- OECD (1997) Draft Detailed Review Paper: Appraisal of Test Methods for Sex-Hormone Disrupting Chemicals, Paris: Organization for Economic Cooperation and Development, April.
- OECD (1998a) Report of the First Meeting of the OECD Endocrine Disrupter Testing and Assessment (EDTA) Working Group, 10-11 March 1998, ENV/MC/CHEM/RA(98)5. Paris: Organization for Economic Cooperation and Development, 1998.
- OECD (1998b) Report of Second Meeting of the Joint NCM/RAAB Working Group on Endocrine Disrupters Testing and Assessment (EDTA TASK FORCE), Paris, 12-13 November 1998. Organization for Economic Cooperation and Development.
- OECD (1999a) Final Record: First Meeting of the OECD Validation Management Committee for the Screening and Testing of Endocrine Disrupting Substances—Mammalian Effects, Tokyo, Japan, 8-10 February 1999. Organization for Economic Cooperation and Development.
- OECD (1999b) OECD Guideline for Testing of Chemicals: revised Draft Guideline 416: Two-generation Reproduction Toxicity Study. Draft Document, August, 1999. Paris: Organization for Economic Cooperation and Development.
- Oehlmann J (1998) Untersuchungen zum Einsatz von Pathomorphosen der ableitenden Geschlechtswege von Verderkiemerschnecken (Gastropoda: Prosobranchia) für ein biologisches TBT-Effektmonitoring. Habilitation Thesis, International Graduate School Zittau. pp. 162.
- Ohtani H, Miura I & Icikawa Y (2000) Effects of dibutyl phthalate as an environmental endocrine disruptor on gonadal sex differentiation of genetic males of the frog *Rana rugosa*. *Environ Health Perspect*, 108:1189-1193.
- Okey AB, Riddick DS & Harper PA (1994) The Ah receptor: mediator of the toxicity of 2,3,7,8-tetrachlordibenzo-*p*-dioxin (TCDD) and related compounds. *Toxicol Lett*, 70:1-22.
- Olafsson PG, Bryan AM, Bush B. & Stone W (1983) Snapping turtles: a biological screen for PCBs. *Chemosphere*, 12:1525-1523.
- Olaya-Contreras P, Rodriguez-Villamil J, Poso-Valencia HJ & Cortez JE (1998) Organochlorine exposure and breast cancer risk in Columbian women. *Cad Saude Publica*, 14(Suppl 3):125-132.
- Olin SS (1998) Between a rock and a hard place: Methods for setting dietary allowances and exposure limits for essential minerals. *J Nutr*, 128(Suppl 2):364S-367S.
- Olmstead AW, LeBlanc GA (2001a) Low exposure concentration effects of methoprene on endocrine-regulated processes in the crustacean *Daphnia magna*. *Toxicol Sci*, 62: 286-273.
- Olmstead AW & LeBlanc GA (2001b) Temporal and quantitative changes in sexual reproductive cycling of the cladoceran *Daphnia magna* by a juvenile hormone analog. *J Exp Zool* 290:148-155.
- Olsen NJ & Kovacs WJ (1996) Gonadal steroids and immunity. *Endocrinol Rev*, 17:369-384.
- Olin SF (1998) Aggregate Exposure Assessment. Washington, D.C.: The International Life Sciences Institute.
- Olsson M, Johnels AG & Vaz R (1975) DDT and PCB levels in seals from Swedish waters. The occurrence of aborted pups. In: Proceedings from the Symposium on the Seal in the Baltic. SNV PM 591:43-65.
- Olsson M & Reutergårdh L (1986) DDT and PCB pollution trends in the Swedish aquatic environment. *Ambio*, 15:103-109.
- Olsson M, Bignert A, Odsjö T, Persson W, Litzén K, Eriksson U, Håggberg L & Alsberg T (1997) Temporal trends of organochlorines in Northern Europe, 1967-1995 support long ranged transport but not the "Gras-hopper Effect". *Organohalogen Compounds*, 33:99-104.
- Olsson M, Bignert A, Jensen S, Eriksson U & Asplund L (1998) Altered PCB congener composition over time in herring from the Swedish marine environment—A result of atmospheric degradation? Part III. *Organohalogen Compounds*, 36:369-372.
- Olsson A, Ceder K, Bergman A & Helander (2000a) Nestling blood of the white-tailed sea eagle (*Haliaeetus albicilla*) as indicator of territorial exposure to organohalogen compounds—an evaluation. *Environ Sci Technol*, 34:2733-2740.
- Olsson A, Valters K & Burreau S (2000b) Concentration dynamics of organochlorine substances in relation to fish size and trophic position—A study on perch (*Perca fluviatilis* L.). *Environ Sci Technol*, 34:4878-4886.
- Olsson M, Bignert A, Eckhéll J & Jonsson P (2000c) Comparison of temporal trends (1940s-1990s) of DDT and PCB in Baltic sediment

- and biota in relation to eutrophication. *Ambio*, 29:195-201.
- Omnell M, Sim F, Keeler RF, Harne L & Brown KS (1990) Expression of *Veratrum* teratogenicity in the mouse. *Teratology*, 42:105-119.
- Oppenheimer JH, Schwartz HL & Strait KA (1995) An integrated view of thyroid hormone actions *in vivo*. In: Weintraub BD, ed. *Molecular Endocrinology: Basic Concepts and Clinical Interpretations*. New York: Raven Press, pp. 246-268.
- Orn U & Klasson Wehler E (1998) Metabolism of 2,2,4,4-tetrabromodiphenyl ether in rat and mouse. *Xenobiotica*, 28:199-211.
- Osegebe DN, Amaku EO & Nnatu SN (1986) Are changing semen parameters a universal phenomenon? *Eur Urol*, 12:164-168.
- Ostby J, Kelce WR, Lambright C, Wolf CJ, Mann P & Gray LE (1999) The fungicide procymidone alters sexual differentiation in the male rat by acting as an androgen-receptor antagonist *in vivo* and *in vitro*. *Toxicol Ind Health*, 15:80-93.
- Ouellet M, Bonin J, Rodrigue J, DesGranges J & Lair L (1997) Hindlimb deformities (ectromelia, ectrodactyly) in free-living anurans from agricultural habitats. *J Wildlife Dis*, 33:95-104.
- Pal-de Bruin KM, Verloove-Vanhorick SP & Roeleveld N (1997) Change in male:female ratio among newborn babies in Netherlands. *Lancet*, 349:62.
- Palmer B & Palmer S (1995) Vitellogenin induction by xenobiotic estrogens in the red-eared turtle and African clawed frog. *Environ Health Perspect*, 103(Suppl 4):19-25.
- Palmer BD & Guillette LJ Jr (1988) Histology and functional morphology of the female reproductive tract of the tortoise *Gopherus polyphemus*. *Am J Anat*, 183(3):200-211.
- Palmer BD & Guillette LJ Jr (1990) Morphological changes in the oviductal endometrium during the reproductive cycle of the tortoise, *Gopherus polyphemus*. *J Morphol*, 204:323-333.
- Palmer BD & Guillette LJ Jr (1992) Alligators provide evidence for the evolution of an archosaurian mode of oviparity. *Biol Reprod*, 46(1):39-47.
- Palmer BD, Perkins MJ, Massie K, Simon MS & Uribe UCA (1997) Reproductive anatomy and physiology of reptiles: evolutionary and ecological perspectives. In: Ackerman L, ed. *The Biology, Husbandry and Health Care of Reptiles and Amphibians*, Vol. III. T.F.H. Publications. pp.54-87. Neptune City, N.J.
- Palmer JR, Rosenberg L, Clarke EA, Stolley PD, Warshauer ME, Zauber AG & Shapiro S (1991) Breast cancer and cigarette smoking: A hypothesis. *Am J Epidemiol*, 134:1-13.
- Panter GH, Thompson RS, Beresford N & Sumpter JP (1999) Transformation of a non-oestrogenic steroid metabolite to an oestrogenically active substance by minimal bacterial activity. *Chemosphere*, 38:3579-3596.
- Paolucci M, Custodia N & Callard IP (1998) Progesterone effects and receptors, subavian species. In: Knobil E & Neill JD, ed. *Encyclopedia of Reproduction*, Vol. 4, pp. 16-22.
- Papadimas J (1997) Adrenarche. *Ann N Y Acad Sci*, 816:57-59.
- Papalopulu N, Clarke J, Bradley L, Wilkinson D, Krumlauf R & Holder N (1991) Retinoic acid causes abnormal development and segmental patterning of the anteroid hindbrain in *Xenopus* embryos. *Development*, 113:1145-1148.
- Päpke O (1998) PCDD/PCDF: Human background data for Germany, a 10-year experience. *Environ Health Perspect*, 106:723-731.
- Päpke O (2000) Lesson learned on performing more than 15,000 dioxin analysis. *Organohalogen Compounds*, 48:115-118.
- Päpke O, Bathe L, Bergman Å, Fürst P, Meironyté Guvenius D, Herrmann T & Norén K (2001) Determination of PBDEs in human milk from the United States—comparison of results from three laboratories. *Organohalogen Compounds*, 52:197-200.
- Parker KL, Ikeda Y & Luo X (1996) The roles of steroidogenic factor-1 in reproductive function. *Steroids*, 61:161-165.
- Parker SL, Tong T, Bolden S & Wingo RJ (1997) Cancer statistics, 1997. *CA-Cancer J Clin*, 47:5-27.
- Parks LG, Ostby JS, Lambright CR, Abbott BD, Klinefelter GR, Barlow NJ & Gray LE (2000) The plasticizer diethylhexyl phthalate induces malformations by decreasing fetal testosterone synthesis during sexual differentiation in the male rat. *Toxicol Sci*, 58:339-349.
- Parks LG, Lambright CS, Orland EF, Guillette LJ Jr, Ankley GT, Gray LE Jr (2001) Masculinization of female mosquito fish in Kraft mill effluent-contaminated Fenholloway River water is associated with androgen receptor agonist activity. *Toxicol. Sci*, 62(2):257-267.
- Parma P, Pailhoux E, Puissant C & Cotinot C (1997) Porcine DAX-1 gene: Isolation and expression during gonadal development. *Mol Cell Endocrinol*, 135:49-58.
- Patandin S, Lanting CI, Mulder PGH, Boersma ER, Sauer PJJ & Weisglas-Kuperus N (1999) Effects of environmental exposure to polychlorinated biphenyls and dioxins on cognitive abilities in Dutch children at 42 months of age. *J Pediatr*, 134:33-41.
- Patyna P, Thomas P & Cooper K (1999) Multigenerational reproductive effects of DBP in Japanese medaka (*Oryzias latipes*). *Toxicologist*, 48(Suppl 1-S): A1236, p. 262.
- Paulozzi LJ (1999) International trends in rates of hypospadias and cryptorchidism. *Environ Health Perspect*, 107:297-302.
- Paulozzi LJ, Erickson D & Jackson RJ (1997) Hypospadias trends in two US surveillance systems. *Pediatrics*, 100:831-834.
- Paulsen CA, Berman NG & Wang C (1996) Data from men in greater Seattle area reveals a downward trend in semen quality: Further evidence that deterioration of semen quality is not geographically uniform. *Fertil Steril*, 65:1015-1020.
- Paulson KE, Darnell J Jr & Rushmore T (1990) Analysis of the upstream elements of the xenobiotic compound-inducible and positionally regulated glutathione S-transferase Ya gene. *Mol Cell Biol*, 10:1841-1852.
- Paustenbach DJ (2000) The practice of exposure assessment: A state-of-the-art review. *J Toxicol Environ Health, Part B* 3:179-291.
- Pauwels AC, Peter HS & Paul JC (2000) Comparison of chemicalactivated luciferase gene expression bioassay and gas chromatography for PCB determination in human serum and follicular fluid. *Environ Health Perspect*, 108:552-557.
- Peakall DB (1970a) Pesticides and the reproduction of birds. *Sci Am*, 222:72-78.
- Peakall DB (1970b) *p,p'*-DDT: Effect on calcium metabolism and concentration of estradiol in the blood. *Science*, 168:592-594.
- Peakall DB (1986) Accumulation and effects on birds. In: Waid JS, ed. *PCBs in the Environment*, Vol. II. Boca Raton, FL: CRC Press, pp. 31-47.
- Peakall DB (1988) Known effects of pollutants on fish-eating birds in the Great Lakes of North America. In: Schmidtke NW, ed.

- Toxic Contamination in Large Lakes, Vol. II. Chronic Effects of Toxic Contaminants in Large Lakes. Chelsea, MI: Lewis Publishers, pp. 39-54.
- Peakall DB & Peakall ML (1973) Effect of a polychlorinated biphenyl on the reproduction of artificially and naturally incubated dove eggs. *J Appl Ecol*, 10:863-868.
- Peakall DB, Miller DS & Kinter WB (1975) Blood calcium levels and the mechanism of DDE-induced eggshell thinning. *Environ. Pollut*, 9:289-294.
- Pechmann JHK & Wilbur HM (1994) Putting amphibian declines into perspective: Natural fluctuations and human impacts. *Herpetologica*, 50:65-84.
- Pechmann JHK, Scott DE, Semlitsch RD, Caldwell JP, Vitt LJ & Gibbons JW (1991) Declining amphibian populations: The problem of separating human impacts from natural fluctuations. *Science*, 253:892-895.
- Pederson JF (1980) Ultrasound evidence of sexual difference in fetal size in first trimester. *Brit Med J* 281:1253.
- Pekarik C & Weseloh DV (1998) Organochlorine contaminants in herring gull eggs from the Great Lakes, 1974-1995: Change point regression analysis and short-term regression. *Environ Monit Assess*, 53:77-115.
- Pelissero C, Bennetau B, Babin P, Le Menn F & Dunogues L (1991a) The estrogenic activity of certain phytoestrogens in the Siberian sturgeon, *Acipenser baeri*. *J Steroid Biochem Molec Biol*, 38(3):293-299.
- Pelissero C, Le Menn F & Kaushick S (1991b) Estrogenic effect of dietary soya bean meal on vitellogenesis in cultured Siberian sturgeon *Acipenser baeri*. *Gen Comp Endocrinol*, 83:447-457.
- Pellegrini M, Pantano S, Lucchini F, Fumi M & Forabosco A (1997) Emx2 developmental expression in the primordia of the reproductive and excretory systems. *Anal Embryol*, (Berlin) 196:427-433.
- Pepper G, Brenner S & Gabilove J (1990) Ketoconazole use in the treatment of ovarian hyperandrogenism. *Fertil Steril*, 54:38-44.
- Pergament E, Fidler M, Cho N, Johnson D & Holmgren WJ (1994) Sexual differentiation and preimplantation cell growth. *Hum Reprod*, 9:1730-1732.
- Pertilä M, Stenman O, Pyysalo H & Wickstrom K (1986) Heavy metals and organochlorine compounds in seals in the Gulf of Finland. *Mar Environ Res*, 18:43-59.
- Petersen, GI, Gerup J, Nilsson L, Larsen JR & Schneider R (1997) Body burdens of lipophilic xenobiotics and reproductive success in Baltic cod (*Gadus morhua* L.). *International Council for the Exploration of the Sea*, Copenhagen, ICES CM 1997/U:10, 22 pp.
- Peterson RE, Theobald HM & Kimmel GL (1993) Developmental and reproductive toxicity of dioxins and related compounds: Crossspecies comparisons. *Crit Rev Toxicol*, 23(3):283-335.
- Petrakis NL, Barnes S, King EB, Lowenstein J, Wiencke J, Lee MM, Miike R, Kirk M & Coward L (1996) Stimulatory influence of soy protein isolate on breast secretion in pre- and postmenopausal women. *Cancer Epidemiol Biomark Prev*, 5:785-794.
- Philips DIW, Barker DJP, Fall CHD, Seckl JR, Whorwood CB & Wood PJ (1998) Elevated plasma cortisol concentrations: an expression for the relationship between low birth weight and adult cardiovascular risk factors. *J Clin Endocrinol Metab*, 83:757-760.
- Phipps WR, Martini MC, Lampe JW, Slavin JL & Kurzer MS (1993) Effect of flaxseed ingestion on the menstrual cycle. *J Clin Endocrinol Metab*, 77:1215-1219.
- Pickford D & Morris I (1999) Effects of endocrine-disrupting chemicals on amphibian oogenesis: methoxychlor inhibits progesterone-induced maturation of *Xenopus laevis* oocytes *in vitro*. *Environ Health Perspect*, 107:285-292.
- Pierotti R (1981) Male and female parental roles in the Western Gull under different environmental conditions. *Auk*, 98:532-549.
- Piferrer F, Baker IJ & Donaldson EM (1993) Effects of natural, synthetic, aromatizable and non-aromatizable androgens in inducing male sex differentiation in genotypic female Chinook salmon (*Oncorhynchus tshawytscha*). *Gen Comp Endocrinol*, 91:59-65.
- Piferrer F, Zanuy S, Carrillo M, Solar II, Devlin RH & Donaldson EM (1994) Brief treatment with an aromatase inhibitor during sex differentiation causes chromosomally female salmon to develop as normal, functional males. *J Exp Zool*, 270:255-262.
- Pike MC, Spicer DV, Dalmouth L & Press MF (1993) Estrogens, progestins, normal breast cells, and breast cancer risk. *Epidemiol Rev*, 15:17-35.
- Pinter J & Thomas P (1997) The ovarian pregestogen receptor in the spotted seatrout, *Cynoscion nebulosus*, demonstrates steroid specificity intermediate between progesterone and glucocorticoid receptors in other vertebrates. *Journal of Steroid Biochemistry and Molecular Biology* 60(1-2):113-119.
- Plosker GL & Brogden RN (1996) *Serenoa repens* (Permixon). A review of its pharmacology and therapeutic efficacy in benign prostatic hyperplasia. *Drugs Aging*, 9(5):379-395.
- Pluim HJ, de Vijlder JJM, Olie K, Kok JH, Vulmsa T, van Tijn DA, van Slikke JW & Koppe JG (1993) Effects of pre- and postnatal exposure to chlorinated dioxins and furans on human neonatal thyroid hormone concentrations. *Environ Health Perspect*, 101:504-508.
- Pocker Y, Beug WM & Ainardi VR (1971) Carbonic anhydrase interaction with DDT, DDE and dieldrin. *Science*, 174:1336-1339.
- Poellinger L (2000) Mechanistic aspects—the dioxin (aryl hydrocarbon) receptor. *Food Addit Contam*, 17:261-266.
- Poland A & Glover E (1977) Stereospecific, high affinity binding of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin by hepatic cytosol. Evidence that the binding species is a reporter for induction of aryl hydrocarbon hydroxylase. *J Biol Chem* 254(16):4936-4946.
- Pollard M, Wolter W, Sun L (2000) Prevention of induced prostate-related cancer by soy protein isolate/isoflavone-supplemented diet in Lobund-Wistar rats. *In Vivo*, 14(3):389-392.
- Polson DW, Adams J, Wadsworth J & Franks S (1988) Polycystic ovaries—a common finding in normal women. *Lancet*, 1(8590):870-872.
- Pomerantz SM, Roy MM, Thornton JE & Goy RW (1985) Expression of adult female patterns of sexual behavior by male, female, and pseudohermaphroditic female rhesus monkeys. *Biology of Reproduction* 33(4):878-889.
- Pomeroy SE & Barrett GW (1975) Dynamics of enclosed small mammal populations in relation to an experimental pesticide application. *Am Midl Naturalist*, 93:91-106.
- Porterfield SP (1994) Vulnerability of the developing brain to thyroid abnormalities: environmental insults to the thyroid system. *Environ Health Perspect*, 102:125-130.
- Porterfield SP & Hendry LB (1998) Impact of PCBs on thyroid hormone directed brain development. *Toxicol Ind Health*, 14:103-120.

- Potashnik G, Goldsmith J & Insler V (1984) Dibromochloropropane-induced reduction of the sex ratio in man. *Andrologica*, 16:213-218.
- Potischman N, Hoover RN, Brinton LA, Siiteri P, Dorgan JF, Swanson CA, Berman ML, Mortel R, Twigg LB, Barrett RJ, Wilbanks GD, Persky V & Lurain JR (1996) Case-control study of endogenous steroid hormones and endometrial cancer. *J Natl Cancer Inst*, 88:1127-1135.
- Prahalada S, Tarantal AF, Harris GS, Ellsworth KP, Clarke AP, Skiles GL, MacKenzie KI, Kruk LF, Ablin DS, Cukierski MA, Peter CP, van Zwieten MJ & Hendrickx AG (1997) Effects of finasteride, a type 2,5-alpha reductase inhibitor, on fetal development in the rhesus monkey (*Macaca mulatta*). *Teratology*, 55:119-131.
- Price D & Williams-Ashman HG (1961) The accessory reproductive glands of mammals. In: Young WC, ed. *Accessory Mammalian Reproductive Glands in Sex and Internal Secretions*, Vol. 1. Baltimore, MD: Williams and Wilkins Co., pp. 366-448.
- Price IM & Weseloh DV (1986) Increased numbers and productivity of double-crested cormorants (*Phalacrocorax auritus*) on Lake Ontario. *Canad Field Natural*, 100:474-482.
- Price LJ & Depledge MH (1998) Effects of the xenoestrogen nonylphenol on the polychaete *Dinophilus gyrociliatus* [Abstract]. Abstracts of the 8th Annual meeting of SETAC Europe, 3h/P008.
- Prins GS (1987) Prolactin influence on cytosol and nuclear androgen receptors in the ventral, dorsal, and lateral lobes of the rat prostate. *Endocrinol*, 120:1457-1464.
- Prins GS (1997) Developmental estrogenization of the prostate gland. In: Naz RK, ed. *Prostate: Basic and Clinical Aspects*. Boca Raton, FL: CRC Press.
- Prins GS & Lee C (1983) Biphasic response of the rat lateral prostate to increasing levels of serum prolactin. *Biol Reprod*, 29:938-945.
- Probst MR, Reisz-Porszasz S, Agbunag RV, Ong MS & Hankinson O (1993) Role of the aryl hydrocarbon receptor nuclear translocator protein in aryl hydrocarbon (dioxin) receptor action. *Mol Pharmacol*, 44:511-518.
- Purdum CE, Hardiman PA, Bye VJ, Eno NC, Tyler CR & Sumpter JP (1994) Estrogenic effects of effluents from sewage treatment works. *Chem Ecol*, 8:275-285.
- Quattrochi LC & Tukey RH (1989) The human cytochrome Cyp1A2 gene contains regulatory elements repons to 3-methylcholanthrene. *Mol Pharmacol*, 36:66-71.
- Quigley CA, De Bellis A, Marschke KB, el-Awady MK, Wilson EM & French FS (1995) Androgen receptor defects: historical, clinical, and molecular perspectives. *Endocrinol Rev*, 16:271-321.
- Rajfer J & Coffey DS (1978) Sex steroid imprinting prostate. Long term effects. *Invest Urol*, 16:186-190.
- Rajfer J & Coffey DS (1979) Effects of neonatal steroids on male sex tissues. *Invest Urol*, 17:3-8.
- Raman-Wilms L, Lin-in Tseng A, Wighardt S, Einarson TR & Koren G (1995) Fetal genital effects of first trimester sex hormone exposure: A meta-analysis. *Obstet Gynecol*, 85:141-149.
- Rasmussen PE, Erb K, Westergaard LG & Laursen SB (1997) No evidence of decreasing semen quality in four birth cohorts of 1055 Danish men born between 1950 and 1970. *Fertil Steril*, 68:1059-1064.
- Reed L & Pangaro LN (1995) Physiology of the thyroid gland. I: Synthesis and release, iodine metabolism and binding and transport. In: Becker KL, ed. *Principles and Practice of Endocrinology and Metabolism*, Second Edition. Philadelphia, PA: Lippincott, pp. 285-291.
- Reggiani G (1978). Medical problems raised by the TCDD contamination in Seveso, Italy. *Arch Toxicol*, 40:161-168.
- Rehan NE, Sobrero AJ & Fertig JW (1975) The semen of fertile men: statistical analysis of 1300 men. *Fertil Steril*, 26:492-502.
- Reichman ME, Judd JT & Longcope C (1993) Effect of alcohol consumption on plasma and urinary hormone concentrations in premenopausal women. *J Natl Cancer Inst*, 85:722-727.
- Reijnders PJH (1980) Organochlorine and heavy metal residues in harbour seals from the Wadden Sea and their possible effects on reproduction. *Neth J Sea Res*, 14:30-65.
- Reijnders PJH (1986) Reproductive failure in common seals feeding on fish from polluted coastal waters. *Nature*, 324:456-457.
- Reijnders PJH (1990) Progesterone and oestradiol-17 β concentration profiles throughout the reproductive cycle in harbour seals (*Phoca vitulina*). *J Reprod Fert*, 90:403-409.
- Reijnders PJH (1999) Reproductive and developmental effects of endocrine disrupting chemicals on marine mammals. In: O'Shea TJ, Reeves RR & Long KA, eds. *Marine mammals and Persistent Ocean Contaminants: Proceedings of the Marine Mammal Commission Workshop*. Keystone, Colorado, 12-15 October 1998, pp. 139-143.
- Reijnders PJH & Brasseur SMJM (1992) Xenobiotic induced hormonal and associated developmental disorders in marine organisms and related effects in humans. In: Colborn T & Clement C, eds. *Chemically Induced Alterations in Sexual and Functional Development: The Wildlife/Human Connection*. Princeton, NJ: Princeton Scientific Publishing Co., pp. 131-146.
- Reijo R, Lee TY, Salo P, Alagappan R, Brown LG, Rosenberg M, Rozen S, Jaffe T, Straus D, Hovatta O, de la Chapell A, Silber S & Page DC (1995) Diverse spermatogenic defects in humans caused by Y chromosome deletions encompassing a novel RNA-binding protein gene. *Nat Genet*, 10:383-393.
- Reiter LW, DeRosa C, Kavlock RJ, Lucier G, Mac MJ, Melillo J, Melnick RL, Sinks T & Walton B (1998) The US federal framework for research on endocrine disruptors and an analysis of research programs supported during fiscal year 1996. *Environ Health Perspect*, 106:105-113.
- Ren XQ, Su XD, Huang AJ, Sun YL & Sun ZP (2000) Selectivity difference between carboxyethyl-beta-cyclodextrin and carboxymethyl-beta-cyclodextrin in enantioseparations of drugs by capillary electrophoresis. *Chromatographia*, 51:634-637.
- Restrepo M, Munoz N, Day N, Parra JE, Hernandez C, Blettner M & Giraldo A (1990) Birth defects among children born to a population occupationally exposed to pesticides in Columbia. *Scand J Work Environ Health*, 16:239-246.
- Reuber MD (1979) Carcinogenicity of lindane. *Environ Res*, 19:460-481.
- Reuber MD (1980) Carcinogenicity and toxicity of methoxychlor. *Environ Health Pespect*, 36:205-219.
- Revelli A, Massobrio M & Tesarik J (1998) Nongenomic actions of steroid hormones in reproductive tissue. *Endocrine Reviews*, 19:3-17.
- Rhen T & Lang JW (1994) Temperature-dependent sex determination in the snapping turtle: manipulation of the embryonic sex steroid environment. *Gen Comp Endocrinol*, 96(2):243-254.
- Richard-Mercier N, Dorizzi M, Desvages G, Pieau, GM and C (1995) Endocrine sex reversal of gonads by the aromatase inhibitor

- Letrozole (CGS20267) in *Emy orbicularis*, a turtle with temperature-dependent sex determination. *Gen Comp Endocrinol*, 100(3):314-326.
- Reijnders PJH (1980) Organochlorine and heavy metal residues in harbour seals from the Wadden Sea and their possible effects on reproduction. *Neth J Sea Res*, 14:30-65.
- Rier SE, Martin DC, Bowman RE, Dmowski WP & Becker JL (1993) Endometriosis in rhesus monkeys (*Macaca mulatta*) following chronic exposure to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. *Fundam Appl Toxicol*, 21:433-441.
- Rier SE, Turner WE, Martin DC, Morris R, Lucier G & Clark GC (2001) Serum levels of TCDD and dioxin-like chemicals in rhesus monkeys chronically exposed to dioxin: Correlation of increased serum PCB levels with endometriosis. *Toxicol Sci*, 59:147-159.
- Rijnsdorp AD & Vethaak AD (1997) Changes in reproductive parameters of North Sea plaice and sole between 1960 and 1995. International Council for the Exploration of the Sea, Copenhagen, ICES C.M. 1997/U:14, 9 pp. + tables and figs.
- Ritzen EM (1998) Adrenal and gonadal disorders. In: Kelnar CJH, Savage MO, Sterling HF & Saeger P, eds. *Growth disorders—pathobiology and treatment*. London: Chapman & Hall, pp. 575-585.
- Robinson RD (1994) Evaluation and development of laboratory protocols for predicting the chronic toxicity of pulp mill effluents to fish. PhD thesis. Guelph, Canada: University of Guelph, pp. 150.
- Rodman LE, Shedlofsky SI, Mannschreck A, Püttmann M, Swim AT & Robertson LW (1991) Differential potency of atropisomers of polychlorinated biphenyls on cytochrome P450 induction and uroporphyrin accumulation in chicken embryo hepatocyte culture. *Biochem Pharmacol*, 41:915-922.
- Rogan WJ & BC Gladen (1992) Neurotoxicology of PCBs and related compounds. *Neurotoxicol*, 13:27-36.
- Rogan WJ, Gladen BC, Hung KL, Koong SL, Shih LY, Taylor JS, Wu YC, Yang D, Ragan NB & Hsu CC (1988) Congenital poisoning by polychlorinated biphenyls and their contaminants in Taiwan. *Science*, 241:334-336.
- Rogan WJ, Gladen BC, Guo YL & Hsu CC (1999) Sex ratio after exposure to dioxin-like chemicals in Taiwan. *Lancet*, 353:207-209.
- Romieu I, Hernandez-Avila M, Lazcano-Ponce E, Weber JP & Dewailly E (2000) Breast cancer, lactation history, and serum organochlorines. *Am J Epidemiol*, 152:363-370.
- Romkes M, Piskorska-Pliszczynska J & Safe S (1987) Effects of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin on hepatic and uterine estrogen receptor levels in rats. *Toxicol Appl Pharmacol*, 87:306-314.
- Ron E, Kleinerman RA, Boile JD Jr, LiVolsi VA, Flannery JT & Fraumeni JF Jr (1987) A population-based case-control study of thyroid cancer. *J Natl Cancer Inst*, 79:1-12.
- Roos A, Bergman A, Greyerz E & Olsson M (1998) Time trend studies on DDT and PCB in juvenile grey seals (*Halichoerus grypus*), fish and guillemot eggs from the Baltic Sea. *Organochlorine Compounds*, 39:109-112.
- Roos A, Greyerz E, Olsson M & Sandegren F (2001) The otter (*Lutra lutra*) in Sweden—population trends in relation to DDT and total PCB concentrations during 1968-1998. *Environ Pollut*, 111:457-469.
- Roots O (1995) Organochlorine pesticides and polychlorinated biphenyls in the ecosystem of the Baltic Sea. *Chemosphere*, 31:4085-4097.
- Rosa-Molinar E & Williams CS (1984) Notes on the fecundity of an arrhenoid population of mosquito fish, *Gambusia affinis holbrooki*. *Northeast Gulf Sci*, 7:121-125.
- Roselli CE, Stormshak F & Resko JA (1998) Distribution and regulation of aromatase activity in the ram hypothalamus and amygdala. *Brain Res*, 811:105-110.
- Rosenbaum M & Leibel RL (1998) Leptin: a molecule integrating somatic energy stores, energy expenditure and fertility. *Trends Endocrinol Metab*, 9:117-123.
- Rosner W (1990) The functions of corticosteroid-binding globulin and sex hormone-binding globulin: Recent advance. *Endocrinol Rev*, 11:80-91.
- Ross P, De Swart R, Reijnders P, Van Loveren H, Vos J & Osterhaus A (1995) Contaminant-related suppression of delayed type hypersensitivity and antibody responses in harbor seals fed herring from the Baltic Sea. *Environ Health Perspect*, 103:162-167.
- Routledge EJ & Sumpter JP (1996) Estrogenic activity of surfactants and some of their degradation products assessed using a recombinant yeast screen. *Environ Toxicol Chem*, 15:241-248.
- Routledge EJ, Sheahan D, Desbrow C, Brighty GC, Waldock M & Sumpter JP (1998) Identification of estrogenic chemicals in STW effluent. 2: *In vivo* responses in trout and roach. *Environ Sci Technol*, 32:1559-1565.
- Rowley MH, Christian JJ, Basu DK, Pawlikowski MA & Paigen B (1983) Use of small mammals (voles) to assess a hazardous waste site at Love Canal, Niagara Falls, New York. *Arch Environ Contam Toxicol*, 12:383-397.
- Ruder A (1985) Paternal-age and birth-order effect on the human secondary sex ratio. *Am J Hum Genet*, 37:362-372.
- Ruehlmann DO, Steinert JR, Valverde MA, Jacob R, Mann GE (1998) Environmental estrogenic pollutants induce acute vascular relaxation by inhibiting L-type Ca²⁺ channels in smooth muscle cells. *FASEB J*, 12(7):613-619.
- Rupa DS, Reddy PP & Reddi OS (1991) Reproductive performance in population exposed to pesticides. *Environ Res*, 55:123-128.
- Russell RW, Hecnar SJ & Haffner GD (1995) Organochlorine pesticide residues in southern Ontario spring peepers. *Environ Toxicol Chem*, 14:815-817.
- Russell RW, Gobas FAPC & Haffner GD (1999) Maternal transfer and *in ovo* exposure of organochlorines in oviparous organisms: A model and field verification. *Environ Sci Technol*, 33:416-420.
- Russo IH & Russo J (1996) Mammary gland neoplasia in longterm rodent studies. *Environ Health Perspect*, 104:938-967.
- Rutledge JC, Shourbaji AG, Hughes LA, Polifka JD, Cruz YP, Bishop JB & Generoso WM (1994) Limb and lower-body duplications induced by retinoic acid in mice. *Proc Natl Acad Sci USA*, 91:5436-5440.
- Rutteman G (1992) Contraceptive steroids and the mammary gland: Is there a hazard?—Insights from animal studies. *Breast Cancer Res Treat*, 23:29-41.
- Ryan JJ & Patry B (2000) Determination of brominated diphenyl ethers (BDEs) and levels in Canadian human milk. *Organohalogen Compounds*, 47:57-60.
- Ryan JJ & Patry B (2001) Body burden and food exposure in Canada for polybrominated diphenyl ethers, Organohalogen Compounds, 51:226-229. Gyeongju, Korea.
- Ryckman DP, Weseloh DV, Hamr P, Fox GA, Collins B, Ewins PJ & Norstrom RJ (1998) Spatial and temporal trends in organochlorine contamination and bill deformities in double-crested cormorants (*Phalacrocorax auritus*) from the Canadian Great Lakes. *Environ Monit Assess*, 53:169-195.

- Saenz de Rodriguez CA, Bongiovanni AM & Conde DB (1985) An epidemic of precocious development in Puerto Rican children. *J Pediatr*, 107:393-396.
- 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 equivalence factors (TEFs). *Crit Rev Toxicol*, 21:51-87.
- Safe S (2000) Polychlorinated biphenyls (PCBs) and polybrominated biphenyls (PBBs): biochemistry, toxicology and mechanism of action. *CRC Crit Revs Toxicol*, 13:319-395.
- Safe S, Astroff B, Harris M, Zacharewski T, Dickerson R, Romkes M & Biegel L (1991) 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD) and related compounds as antiestrogens: characterisation and mechanism of action. *Pharmacol Toxicol*, 69:400-409.
- Salander H & Tisell LE (1976) Effects of megestrol on oestradiol induced growth of the prostatic lobes and the seminal vesicles in castrated rats. *Acta Endocrinol*, 82:213-224.
- Sampson JA (1927) Peritoneal endometriosis due to the menstrual dissemination of endometrial tissue into the peritoneal cavity. *Am J Obstet Gynecol*, 14:422
- Sampson JA (1940) The development of the implantation theory for the origin of peritoneal endometriosis. *Am J Obstet Gynecol*, 40:549.
- Sandau CD (2000) Analytical chemistry of hydroxylated metabolites of PCBs and other halogenated phenolic compounds in blood and their relationship to thyroid hormone and retinol homeostasis in humans and polar bears [PhD Thesis]. Ottawa, Canada: Carleton University.
- Sandau CD, Ayotte P, Dewailly E, Duffe J & Norstrom RJ (2000) Analysis of hydroxylated metabolites of PCBs (OH-PCBs) and other chlorinated phenolic compounds in whole blood from Canadian Inuit. *Environ Health Perspect*, 108:611-616.
- Sandström O, Neuman E & Karas P (1988) Effects of a bleached kraft mill effluent on growth and gonad function in Baltic coastal fish. *Water Sci Technol*, 20:107-118.
- Santell RC, Chang YC, Nair MG & Helferich WG (1997) Dietary genistein exerts estrogenic effects upon the uterus, mammary gland and the hypothalamic/pituitary axis. *J Nutr*, 127:263-269.
- Santii R, Makela S, Strauss L, Korkman J & Kostian ML (1998) Phytoestrogens: potential endocrine disruptors in males. *Toxicol Ind Health*, 14:223-237.
- Sapolsky RM (1996) Why stress is bad for your brain. *Science*, 273:749-750.
- Saracci R, Kogevinas M, Bertazzi PA, Bueno De Mesquita BH, Coggon D, Green LM, Kauppinen T, L'Abbe KA, Littorin M & Lynge E (1991) Cancer mortality in workers exposed to chlorophenoxy herbicides and chlorophenols. *Lancet*, 338:1027-1032.
- Sarkar S (1996) Ecological theory and amphibian declines. *BioSci*, 46:199-207.
- Sas M & Ezollosi J (1980) Sex ratio of children of fathers with spermatid disorders following hormone therapy. *Orv Hetil*, 121:2807-2808.
- Sato T, Nonaka K, Miura T & Peter K (1994) Trends in cohort fertility of the Driusleut Hutterite population. *Hum Biol*, 66:421-431.
- Sauer P (2000) Final report on RENCO, European Commission, Brussels, Belgium, ENV4-CT96-0170.
- Savino W & Arzt E (1999). The thymus-pituitary axis: A paradigm to study immunoendocrine connectivity in normal and stress conditions. In: Plotnikoff NP, Faith RE, Murgu AJ & Good RA, eds. *Cytokines: Stress and Immunity*. Boca Raton, FL: CRC Press, pp. 187-204.
- Savitz DA, Arbuckle T, Kaczor D & Curtis KM (1997) Male pesticide exposure and pregnancy outcome. *Am J Epidemiol*, 146:1025-1036.
- Saxena MC, Siddiqui MKJ, Agarwal V & Kuuty D (1983) A comparison of organochlorine insecticide contents in specimens of maternal blood, placenta and umbilical-cord blood from stillborn and liveborn cases. *J Toxicol Environ Health*, 11:71-79.
- Schact MJ, Niederberger CS, Garnett JE, Sesibar JA, Lee C & Grayhack JT (1992) A local direct effect of pituitary graft on growth of the lateral prostate in rats. *The Prostate*, 20:51-58.
- Schaefer M (1973) Concepts and Issues of Programme Evaluation in Environmental Health (Technical Report Series No. 528), Geneva, Switzerland: World Health Organization.
- Schairer C, Lubin J, Troisi R, Sturgeon S, Brinton L & Hoover R (2000) Estrogen-progestin replacement and risk of breast cancer. *JAMA*, 284:691-694.
- Schantz SL (1996) Developmental neurotoxicity of PCBs: What do we know and where do we go from here? *Neurotox Teratol*, 18:217-227.
- Schantz SL, Moshtaghian J & Ness DK (1995) Spatial learning deficits in adult rats exposed to ortho-substituted PCB congeners during gestation and lactation. *Fundam Appl Toxicol*, 26:117-126.
- Schaumberg I & Molsted K (1989) The influence of chemical occupational environmental factors on reproduction in women in various occupations. *Nord Med*, 104:155-157.
- Schechter A, Toniolo P, Dai LC, Thuy TB & Wolff MS (1997) Blood levels of DDT and breast cancer risk among women living in the North of Vietnam. *Arch Environ Contam*, 33:453-457.
- Scheepers HC, van Erp EJ & van den Bergh AS (1999) Use of misoprostol in first and second trimester abortion: a review. *Obstet Gynecol Surv*, 54:592-600.
- Schena M (1989) The evolutionary conservation of eukaryotic gene transcription. *Experientia*, 45:972-983.
- Schenk D, Stresser DM, McCants JC, Nimrod AC & Benson WH (1997) Influence of beta-naphthoflavone and methoxychlor pretreatment on the biotransformation and estrogenic activity of methoxychlor in channel catfish (*Ictalurus punctatus*). *Toxicol Appl Pharm*, 145:349-356.
- Schlenk D, Stresser DM, Rimoldi J, Arcand L, McCants J, Nimrod AC & Benson WH (1998) Biotransformation and estrogenic activity of methoxychlor and its metabolites in channel catfish (*Ictalurus punctatus*). *Mar Environ Res*, 46:159-162.
- Schlinger BA & Saldanha CJ (1998) Estrogen effects in birds. In: Knobil E & Neill JD, eds. *Encyclopedia of Reproduction*, 2:93-100.
- Schmidt CW (1997) Amphibian deformities continue to puzzle researchers. *Environ Sci Technol*, 31:324-326.
- Schmidt JV & Bradfield CA (1996) Ah receptor signaling pathways. *Annu Rev Cell Dev Biol*, 12:55-89.
- Schreck CB (1996) Immunomodulation: Endogenous factors. In: Iwama G & Nakanishi T, eds. In: *The Fish Immune System: Organism, Pathogen, and Environment*. San Diego, CA: Academic Press, Inc. pp. 118-146.
- Schröter-Kermani C, Helm D, Herrmann T & Pöpke O (2000) The German environmental specimen bank—application in trend

- monitoring of polybrominated diphenyl ethers in human blood. *Organohalogen Compounds*, 47:49-52.
- Schurmeyer T & Nieschlag E (1984) Effect of ketoconazole and other imidazole fungicides on testosterone biosynthesis. *Acta Endocrinol*, 105:275-280.
- Schuurman HJ, Kranjc-Franken MAM, Kuper CF, Van Loveren H & Vos JG (1991) Immune system. In: Haschek WM & Rousseaux S, eds. *Handbook of Toxicologic Pathology*. New York: Academic Press, pp. 427-487.
- Scialli AR, Swan SH, Amler RW, Baird DD, Eskenazi B, Gist G, Hatch MC, Kesner S, Lemasters GK, Marcus M, Paul ME, Schulte P, Taylor Z, Wilcox AJ & Zahniser C (1997) Assessment of reproductive disorders and birth defects in communities near hazardous chemical sites. II: Female reproductive disorders. *Reprod Toxicol*, 11:231-242.
- SCOOP (2000) Scientific Co-operation on Questions Relating to Food. Assessment of dietary intake of dioxin related PCBs by the population of EU member states. Report on tasks for scientific cooperation. Directorate-General Health and Consumer Protection. 7 June 2000.
- Scorer L (1964) The descent of the testis. *Arch Dis Child*, 39:605-609.
- Scott AP, Stewart C, Allen Y & Matthiessen P (2000) 17-betaoestradiol in male flatfish. In: Norberg B, Kjesbu OS, Taranger GL, Andersson E & Stefansson SO, eds. In: *Proceedings of the 6th International Symposium on the Reproductive Physiology of Fish*, Institute of Marine Research and University of Bergen, Bergen, Norway, 4-9 July 1999, pp. 382.
- Scott ML, Zimmermann JR, Mullenhoff PA, Ramsey GL & Rice RW (1975) Effects of PCBs, DDT, and mercury compounds upon egg production, hatchability and shell quality in chickens and Japanese quail. *Poult Sci*, 54:350-368.
- Scott WJ & Holson JF (1977) Weight differences in rat embryos prior to sexual differentiation. *J Embryol Exp Morphol*, 79:259-263.
- Scott WJ, Collins MD, Ernst AN, Supp DM & Potter SS (1994) Enhanced expression of limb malformations and axial skeleton alterations in legless mutants by transplacental exposure to retinoic acid. *Develop Biol*, 164:277-289.
- Seckl JR (1999) Glucocorticoids, 11 β -hydroxylated dehydrogenase and fetal programming: In: O'Brien PMS, Wheeler T & Barker DJP, eds. *Fetal Programming: Influences on Development and Disease in Later Life*. London: Royal College of Obstetricians & Gynaecologists Press, pp. 430-439.
- Seegal RF, Brosch KO & Okoniewski RJ (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*, 146:95-103.
- Seiber JN (1999) Extraction, cleanup, and fractionation methods. In: Fong WG, Moye HA, Seiber JN & Toth JP, eds. *Pesticide Residues in Foods: Methods, Techniques, and Regulations*. New York: Wiley Interscience, pp. 17-61.
- Sellström U, Kierkegaard A, Alsberg T, Jonsson P, Wahlberg C & de Wit C (1999a) Brominated flame retardants in sediments from European estuaries, the Baltic sea and in sewage sludge. *Organohalogen Compounds*, 40:383-386.
- Sellström U, Kierkegaard A, de Wit C, Jansson B, Bignert A & Olsson M (1999b) Temporal trend studies of polybrominated diphenyl ethers in guillemot egg from the Baltic Sea. In: *Determination of Some Polybrominated Flame Retardants in Biota, Sediment and Sewage Sludge (Paper V)*. Doctoral Dissertation. Environmental Chemistry, Stockholm University.
- Semenza GL (1994) Regulation of erythroporotein production. New insights into molecular mechanisms of oxygen homeostasis. *Hematol Oncol Clin North Am*, 8:863-884.
- Servos MR (1999) Review of the aquatic toxicity and bioaccumulation of alkylphenols and alkylphenol ethoxylates. *Water Qual. Res J Can*, 34:123-182.
- Servos MR, Maguire J, Bennie D, Lee B, Cureteon P, Davidson N, Suttcliffe R, Rawn T (2000) Background Document for the PSL-2 Assessment of Nonylphenol and its Ethoxylates. Environment Canada, Ottawa, Canada.
- Servos MR, Bennie DT, Burnison K, Cureteon P, Davidson N, Rawn T (2001) Uncertainties in assessing the risk of an endocrine active compound. *Water Quality Research Journal of Canada*, 36:191-213.
- Sessions SK & Ruth SB (1990) Explanation of naturally occurring supernumerary limbs in amphibians. *J Exper Zool*, 254:38-47.
- SEPA (2001) Miljöövervakning. Available: <http://www.environ.se>
- SETAC (1994) Aquatic Dialogue Group: Pesticide Risk Assessment & Mitigation. Pensacola, FL: SETAC Press.
- SETAC (1999) SETAC-Europe/OECD/EC Expert Workshop on Endocrine Modulators and Wildlife: Assessment and Testing (EMWAT), Veldhoven, The Netherlands, 12-15 December, 1988. Tattersfield L, Matthiessen P, Campbell P, Grandy N & Lange R, eds. Brussels: SETAC-Europe Publications, pp. 125.
- Servos, MR (1999) Review of the aquatic toxicity, estrogenic responses and bioaccumulation of alkylphenols and alkylphenol polyethoxylates. *Water Qual Res J Can*, 34:123-177.
- Shang DY, MacDonald RW, Ikonomou MG (1999) Persistence of nonylphenol ethoxylate surfactants and their primary degradation products in sediments from near a municipal outfall in the Strait of Georgia, British Columbia, Canada. *Environ. Sci Technol*, 33:1366-1372.
- Sharp S & Mackay D (2000) A framework for evaluating bioaccumulation in food webs. *Environ Sci Technol*, 34:2373-2379.
- Sharpe RM (1994) Regulation of spermatogenesis. In: Knobil E & Neill JD, eds. *The Physiology of Reproduction*, Second Edition. New York: Raven Press, pp. 1363-1424.
- Sharpe RM (1998) The roles of oestrogen in the male. *Trends Endocrinol Metab*, 9:371-377.
- Sharpe RM (1999) Fetal and neonatal hormones and reproductive function of the male in adulthood. In: O'Brien PMS, Wheeler T & Barker DJP, eds. *Fetal Programming: Influences on Development and Disease in Later Life*. London: Royal College of Obstetricians & Gynaecologists Press, pp. 187-194.
- Sharpe RM & Skakkebaek NE (1993) Are oestrogens involved in falling sperm counts and disorders of the male reproductive tract? *Lancet*, 341:1392-1395.
- Sharpe RM, Fisher JS, Millar MM, Jobling S & Sumpter JP (1995) Gestational and lactational exposure of rats to xenoestrogens result in a reduced testicular size and sperm production. *Environ Health Perspect*, 103:1136-1143.
- She J, Winkler J, Visita P, McKinney M & Petreas M (2000) Analysis of PBDEs in seal blubber and human breast adipose tissue samples. *Organohalogen Compounds*, 47:53-56.
- Sherwood NM, Parker DB, McRory JE & Lescheid, D (1994) Molecular evolution of growth hormone-releasing hormone and gonadotropin-releasing hormone. In: Sherwood NM & Hew CL, eds. *Fish Physiology*, Vol. XIII: Molecular Endocrinology of Fish.

- San Diego, CA: Academic Press, Inc.
- Shi YB (1994) Molecular biology of amphibian metamorphosis: A new approach to an old problem. *Trends Endocrinol Metab*, 5:14-20.
- Shi Y, Zou M, Schmidt H, Juhasz F, Stensky V, Robb D & Farid NR (1991) High rates of ras codon 61 mutation in thyroid tumors in an iodine deficient area. *Cancer Res*, 51:2690-2693.
- Shigematsu N, Ishimaru S, Saito R, Idea T, Matsuba K, Sugiyama K & Masuda Y (1978) Respiratory involvement in polychlorinated biphenyls poisoning. *Environ Res*, 16:92-100.
- Shimeld SM (1996) Retinoic acid, HOX genes and the anterior-posterior axis in chordates. *Bioessays*, 18:613-616.
- Shinka T, Tomita K, Toda T, Kotliarova SE, Lee J, Kuroki Y, Jin DK, Tokunaga K, Nakamura H & Nakahori Y (1999) Genetic variation on the Y chromosome in the Japanese population and implications for modern human Y chromosome lineage. *J Hum Genet*, 44:240-245.
- Shugart GW (1980) Frequency and distribution of polygyny in Great Lakes herring gulls in 1978. *Condor*, 82:426-429.
- Shweiki D, Itin A, Soffer D & Keshet E (1992) Vascular endothelial growth factor induced by hypoxia may mediate hypoxia initiated angiogenesis. *Nature*, 359:843-845.
- Signorini S, Gerthoux PM, Dassi C, Cazzaniga M, Brambilla P, Vincoli N & Mocarelli P (2000) Environmental exposure to dioxin: The Seveso experience. *Andrologia*, 32:263-270.
- Siiteri PK (1987) Adipose tissue as a source of hormones. *Am J Clin Nutr*, 45:277-282.
- Siiteri PK, Febres F, Clements LE, Chang RJ, Gondos B & Stites D (1977) Progesterone and maintenance of pregnancy: Is progesterone nature's immunosuppressant? *Ann NY Acad Sci*, 286:384-397.
- Simic BS, Kniewald J & Kniewald Z (1994) Effect of atrazine on reproductive performance in the rat. *J Appl Toxicol*, 14(6):401-404.
- Simms W, Ross PS (2001) Vitamin A physiology and its application as a biomarker of contaminant-related toxicity in marine mammals: a review. *Toxicol. Ind. Health*, 16(7-8):291-302.
- Simpson ER, Zhao Y, Agarwal VR, Michael MD, Bulun SE, Hinshelwood MM, Graham-Lorence S, Sun T, Fisher CR, Qin K & Mendelson CR (1997) Aromatase expression in health and disease. *Rec Progr Hormone Res*, 52:185-214.
- Simpson JL & Rebar RW (1995) Normal and abnormal sexual differentiation and development. In: Becker KL, ed. *Principles and Practice of Endocrinology and Metabolism*. Philadelphia, PA: Lippincott, pp. 788-850.
- Simpson HB & Vicario DS (1991) Early estrogen treatment of female Zebra Finches masculinizes the brain pathway for learned vocalizations. *J Neurobiol*, 22:777-793.
- Sinks T, Steele G, Smith AB, et al. (1992) Mortality among workers exposed to polychlorinated biphenyls. *Am J Epidemiol*, 136:389-398.
- Sinks T, Henderson A, Blair A, Brown D, Staehling N & Humphrey H (1996) The mortality experience of people exposed to polybrominated biphenyls. 29th Annual Meeting of the Society for Epidemiologic Research, Boston, MA, June 12-15, 1996. *Am J Epidemiol*, SER Abstracts; S43:172.
- Sitarek K & Berlinska B (1997) Occupational exposure of medical personnel to chemical factors affecting fertility. *Med Pr*, 48:215-221.
- Sjoberg P, Bondesson U & Kjellen LEA (1985) Kinetics of di-(2-ethylhexyl)phthalate in immature and mature rats and effects on testis. *Acta Pharm Toxicol*, 56:30-37.
- Sjödin A, Hagmar L, Klasson Wehler E, Kronholm-Diab K, Jakobsson E & Bergman Å (1999) Flame retardant exposure: Polybrominated diphenyl ethers in blood from Swedish workers. *Environ Health Perspect*, 107:643-648.
- Sjödin A, Hagmar L, Klasson Wehler E, Björk J & Bergman Å (2000) Influence of the consumption of fatty Baltic Sea fish on plasma levels of halogenated environmental contaminants in Latvian and Swedish men. *Environ Health Perspect*, 108:1035-1041.
- Sjödin A, Patterson Jr. DG & Bergman Å (2001) Brominated flame retardants in serum from U.S. blood donors. *Environ Sci Technol*, 35:3830-3293.
- Skakkebaek NE, Rajpert-De Meys E & Main KM (2001) Testicular dysgenesis syndrome: an increasingly common disorder with environmental aspects. *Hum Reprod*, 16:972-978.
- Skegg D (1995) Risk assessment issues in breast cancer. *Mutat Res*, 333:51-58.
- Smith JP & McVeagh M (1991) Widespread organotin pollution in New Zealand coastal waters as indicated by imposex in dogwhelks. *Mar Pollut Bull*, 22:409-413.
- Smith RJ (1974) Effects of 17-alpha-methyltestosterone on the dorsal pad and tubercles of fathead minnows (*Pimephales promelas*). *Can J Zool*, 52:1031-1038.
- Smoger GH, Kahn PC, Rodgers GC, Suffin S & McConnachie P (1993). *In utero* and postnatal exposure to 2,3,7,8-TCDD in Times Beach, Missouri. I: Lymphocyte phenotype frequencies. *Dioxin '93, Organohalogen Compounds*, 13:345-348.
- Snedeker SM & Di Augustine RP (1996) Hormonal and environmental factors affecting cell proliferation and neoplasia in the mammary gland. In: *Cellular and Molecular Mechanisms of Hormonal Carcinogenesis: Environmental Influences*. Huff J, ed. New York: Wiley-Liss, pp. 486.
- Snyder SA, Snyder EM, Villeneuve D, Kannan K, Villalobos A, Blankenship A & Giesy J (2000) Instrumental and bioanalytical measures of endocrine disruptors in water. In: Keith LH, Jones-Lepp TL, Needham LL, eds. *Analysis of Environmental Endocrine Disruptors*. Washington D.C.: American Chemical Society, pp. 73-95.
- Sobrero AJ & Rehan NE (1975) The semen of fertile men. II: Semen characteristics of 100 fertile men. *Fertil Steril*, 11:1048-1056.
- Sonnenschein C, Fernandez MF, Soto AM, Olea N, Olea-Serrano MF & Ruiz-Lopez MD (1995) Development of a marker of estrogenic exposure in human serum. *Clin Chem*, 41:1888-1895.
- Soto AM, Justica H, Wray JW, Sonnenschein C (1991) *p*-Nonylphenol: An estrogenic xenobiotic released from "modified" polystyrene. *Environ Health Perspect*, 92:167-173.
- Soto AM, Sonnenschein C, Chung KL, Fernandez MF, Olea N & Serrano FO (1995) The E-screen assay as a tool to identify estrogens—an update on estrogen-sensitive cells. *Environ Health Perspect*, 103:113-122.
- Soto AM, Fernandez MF, Luizzi MF, Oles Karasko AS & Sonnenschein C (1997) Developing a marker of exposure to xenoestrogen

- mixtures in human serum. *Environ Health Perspect*, 105:647-654.
- Sower SA (1998) Brain and pituitary hormones of lampreys, recent findings and their evolutionary significance. *Am Zool*, 38:15-38.
- Spencer JR, Torrado T, Sanchez RS, Vaughan ED Jr & Imperato-McGinley J (1991) Effects of flutamide and finasteride on rat testicular descent. *Endocrinol*, 129:741-748.
- Spencer PS & Schaumburg HH (2000) *Experimental and Clinical Neurotoxicology*. Baltimore, MD: Williams & Wilkins Co.
- Sperry TS & Thomas P (1999a) Characterization of two nuclear androgen receptors in Atlantic croaker: comparison of their biochemical properties and binding specificities. *Endocrinol*, 140:1602-1611.
- Sperry TS & Thomas P (1999b) Identification of two nuclear androgen receptors in kelp bass (*Paralabrax clathratus*) and their binding affinities for xenobiotics: comparison with Atlantic croaker (*Micropogonias undulatus*) androgen receptors. *Biol Reprod*, 61:1152-1161.
- Spies RB & Thomas P (1997) Reproductive and endocrine status of female kelp bass from a contaminated site in the Southern California Bight and estrogen receptor binding of DDTs. In: Rolland RM, Gilbertson M & Peterson RE, eds. *Chemically Induced Alterations in Functional Development and Reproduction of Fishes*. Pensacola, FL: SETAC Press, pp. 113-133.
- Spooner N, Gibbs PE, Bryan GW & Goad LJ (1991) The effect of tributyl tin upon steroid titres in the female dogwhelk, *Nucella lapillus* and the development of imposex. *Mar Environ Res*, 32:37-50.
- Stahl R, Tattersfield L, Campbell P, Horiguchi T, deFur P & Vethaak A (1999) Introduction to the workshop on endocrine disruption in invertebrates: endocrinology, testing and assessment. In: deFur P, Crane M, Ingersoll C & Tattersfield L, eds. *Endocrine Disruption in Invertebrates: Endocrinology, Testing and Assessment*. Pensacola, FL: SETAC Press, pp. 7-21.
- Stahlschmidt-Allner P & Reinboth R (1991) Gonadal development and social control of sex inversion in *Amphiprion frenatus* (Brevoort). In: Scott AP, Sumpter JP, Kime DE, Rolfe NS, eds. *Proc. 4th Int. Symp. on Reproductive Physiology of Fish*. Norwich, U.K.: University of East Anglia, 7-12 July, 1991, p. 208.
- Stanford JL, Herrinton LJ & Schwartz S (1995) Breast cancer incidence in Asian migrant to the US and their descendants. *Epidemiol*, 6:181-183.
- Staples CA, Weeks J, Hall JF, Naylor CG (1998) Evaluation of the aquatic toxicity and bioaccumulation of C8 and C9-alkylphenol ethoxylates. *Environ. Toxicol. Chem*, 17:2470-2480.
- Stapleton HM, Masterson C, Skubinna J, Ostrom NE & Baker JE (2001) Accumulation of atmospheric and sedimentary PCBs and toxophene in a Lake Michigan food web. *Environ Sci Technol*, 35:3287-3293.
- Stehr-Green PA, Naylor PH & Hoffman RE (1989). Diminished thymosin- α 1 levels in persons exposed to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. *J Toxicol Environ Health*, 28:285-295.
- Stein IF & Leventhal ML (1935) Amenorrhea associated with bilateral polycystic ovaries. *Am J Obstet Gynecol*, 29:181-188.
- Stein JE, Hom T, Sanborn HR & Varanasi U (1991) Effects of exposure to a contaminated-sediment extract on the metabolism and disposition of $^{17}\beta$ -estradiol in English sole (*Parophrys vetulus*). *Comp Biochem Physiol*, 99C:231-240.
- Steiner I, Kubesch K, Wildhack A & Fiala F (1999) Migration of phthalates from PVC-consumption goods. *Lebensmittelchemie*, 53:147-148.
- Stellman SD, Djordjevic MV, Britton JA, Muscat JE, Citron ML & Kemeny M, Busch E & Gong L (2000) Breast cancer risk in relation to adipose concentrations of organochlorine pesticides and polychlorinated biphenyls in Long Island, New York. *Cancer Epidemiol Biomark Prev*, 9(11):1241-1249.
- Stevens J, Green NJL, Jones KC (2001) Survey of PCDD/Fs and non-ortho PCBs in UK sewage sludges. *Chemosphere*, 44:1455-1462.
- Stevens JT, Breckenridge CB, Wetzel LT, Gillis JH, Luempert LG III & Eldridge JC (1994) Hypothesis for mammary tumorigenesis in Sprague-Dawley rats exposed to certain triazine herbicides. *J Toxicol Environ Health*, 43:139-153.
- Stjernberg T, Koivusaari J & Nuuja I (1990) Suomen merikotkakannan kehitys ja pesintätulos 1970-89 [Summary in English]. Population trends and nesting success of the White-tailed Eagle in Finland in 1970-89. *Lintumies*, 25:65-75.
- Stoker TE, Robinette CL & Cooper RL (1999a) Perinatal exposure to estrogenic compounds and the subsequent effects on the prostate of the adult rat: evaluation of inflammation in the ventral and lateral lobes. *Reprod Toxicol*, 13:463-472.
- Stoker TE, Robinette CL, Britt BH, Laws SC & Cooper RL (1999b) Prepubertal exposure to compounds that increase prolactin secretion in the male rat: effects on the adult prostate. *Biol Reprod*, 61:1636-1643.
- Stoker TE, Robinette CL & Cooper RL (1999c) Maternal exposure to atrazine during lactation suppresses suckling-induced prolactin release and results in prostatitis in the adult offspring. *Toxicol Sci*, 52:68-79.
- Stoker TE, Laws SC, Guidici DL & Cooper RC (2000) The effect of atrazine on puberty in male Wistar rats: An evaluation in the protocol for the assessment of pubertal development and thyroid function. *Toxicol Sci*, 58(1):50-59.
- Stott GG, Haensly WE, Neff JM & Sharp JR (1983) Histopathologic survey of ovaries of plaice, *Pleuronectes platessa* L., from Aber Wrac'h and Aber Benoit, Brittany, France: Long-term effects of the *Amoco Cadiz* crude oil spill. *J Fish Diseases*, 6:429-437.
- Strandman T, Koistinen J & Vartianen T (2000) Polybrominated diphenyl ethers (PBDEs) in placenta and human milk. *Organohalogen Compounds*, 47:61-64.
- Straube E, Straube W, Krüger E, Bradatsch M, Jacob-Meisel M & Rose HJ (1999) Disruption of male sex hormones with regard to pesticides: Pathophysiological and regulatory aspects. *Tox Lett*, 107:225-231.
- Stroben E, Oehlmann J & Bettin C. (1991) TBT-induced imposex and the role of steroids in marine snails. In: *Proceedings, Tenth World Meeting of the Organotin Environmental Programme Association*, Berlin, September 26-27, 1991, pp. 68-73.
- Strohmer H, Boldiszar A, Plöckinger B, Feldner-Busztin M & Feichtinger W (1993) Agricultural work and male infertility. *Am J Ind Med*, 24:587-592.
- Struger J & Weseloh DV (1985) Great Lakes Caspian terns: Egg contaminants and biological implications. *Colon Water Birds*, 8:142-149.
- Struger J, Weseloh DV, Hallett DJ & Mineau P (1985) Organochlorine contaminants in herring gull eggs from the Detroit and Niagara Rivers and Saginaw Bay (1978-1982): Contaminant discriminants. *J Great Lakes Res*, 11:223-230.

- Sturgeon SR, Brock JW, Potischman N, Needham LL, Rothman N, Brinton LA & Hoover RN (1998) Serum concentrations of organochlorine compounds and endometrial cancer risk (United States). *Cancer Causes Control*, 9(4):417-424.
- Subramanian AN, Tanabe S, Tatsukawa R, Saito S & Miyazaki N (1987) reduction in the testosterone levels by PCBs and DDE in Dall's porpoises of Northwestern North Pacific. *Mar Pollut Bull*, 18:643-646.
- Subramanian MA & Varadaraj G (1993) The effect of industrial effluents on moulting in *Macromia cingulata* Rambur Anisoptera Corduliidae. *Odonatologica*, 22:229-232.
- Sundaram M, Palli SR, Krell PJ, Sohi SS, Dhadialla TS, Retnakaran A (1998) Basis for selective action of a synthetic molting hormone agonist, RH-5992 on lepidopteran insects. *Insect Biochem Mol Biol* 28:693-704.
- Sundström G & Hutzinger O (1976) The metabolism of chlorobiphenyls. *Chemosphere*, 5:267-298.
- Suominen J & Vierula M (1993) Semen quality of Finnish men. *Brit Med J*, 306:1579.
- Suter GW II (1993) *Ecological Risk Assessment*. London, U.K.: Lewis Publishers.
- Sutherland RW, Wiener JS, Hicks JP, Marcelli M, Gonzales ET, Roth DR & Lamb DJ (1996) Androgen receptor gene mutations are rarely associated with penile hypospadias. *J Urol*, 156:828-831.
- Sutter TR, Guzman K, Dold KM & Greenlee WF (1991) Targets for dioxin: genes for plasminogen activator inhibitor-2 and interleukin-1beta. *Science*, 254:415-419.
- Svensson BG, Nilsson A, Hansson M, Rappe C, Åkesson B & Skerfving S (1991) Exposure to dioxins and dibenzofurans through consumption of fish. *New Engl J Med*, 324:8-12.
- Svensson BG, Nilsson A, Jonsson E, Schutz A, Åkesson B & Hagmar L (1995) Fish consumption and exposure to persistent organochlorine compounds, mercury, selenium and methylamines among Swedish fishermen. *Scand J Work Environ Health*, 21:96-105.
- Swan SH, Elkin EP & Fenster L (1997) Have sperm densities declined? A reanalysis of global trend data. *Environ Health Perspect*, 105:1228-1232.
- Swan SH (2000) Intrauterine exposure to diethylstilbestrol: longterm effects in humans. *AP MIS*, 108:793-804.
- Symula J, Meade J, Skea JC, Cummings L, Colquhoun JR, Dean HJ & Miccoli J (1990) Blue-sac disease in Lake Ontario lake trout. *J Great Lakes Res*, 16:41-52.
- Takahashi S, Tanabe S & Kubodera T (1997) Butyltin residues in deep-sea organisms collected from Suruga Bay, Japan. *Environ Sci Technol*, 31:3101-3109.
- Takahashi S, Tanabe S, Takeuchi I & Miyazaki N (1999) Distribution and specific bioaccumulation of butyltin compounds in a marine ecosystem. *Arch Environ Contam Toxicol*, 37:50-61.
- Takeo J & Yamashita S (1999) Two distinct isoforms of cDNA encoding rainbow trout androgen receptors. *J Biol Chem*, 26:274:5674-5680.
- Talmage SS (1994) *Environmental and human safety of major surfactants—alcohol ethoxylates and alkylphenol ethoxylates*. Boca Raton, Florida: Lewis Publishers (ISBN 1-56670-017-5).
- Talmage S & Walton B (1991) Small mammals as monitors of environmental contaminants. *Rev Environ Contam Toxicol*, 119:47-145.
- Tanabe S, Watanabe S, Kan H & Tatsukawa R (1988) Capacity and mode of PCB metabolism in small cetaceans. *Mar Mamm Sci* 4:103-124.
- Tanabe S, Sung JK, Choi DY, Baba N, Kiyota M, Yoshida K & Tatsukawa R (1994) Persistent organochlorine residues in northern fur seal from the Pacific coast of Japan since 1971. *Environ Pollut*, 85:305-314.
- Tanabe S, Prudente M, Mizuno T, Hasegawa J, Iwata H & Miyazaki N (1998) Butyltin contamination in marine mammals from north Pacific and Asian coastal waters. *Environ Sci Technol*, 32:193-198.
- Tangbanklueckal L & Robinette CL (1993) Prolactin mediates estradiol-induced inflammation in the lateral prostate of Wistar rats. *Endocrinol*, 132:2407-2416.
- Templeton NS, Laufer H (1983) The effects of a juvenile hormone analog (Altosid ZR-515) on the reproduction and development of *Daphnia magna* (Crustacea: Cladocera) *J Invert Reprod* 6:99-110.
- Tennant MK, Hill DS, Eldridge JC, Wetzel LT, Breckenridge CB & Stevens JT (1994a) Chloro-s-triazine antagonism of estrogen action: limited interaction with estrogen receptor binding. *J Toxicol Environ Health*, 43:197-211.
- Tennant MK, Hill DS, Eldridge JC, Wetzel LT, Breckenridge CB & Stevens JT (1994b) Possible anti-estrogenic properties of chloro-triazines in rat uterus. *J Toxicol Environ Health*, 43:183-196.
- Terasawa E (1998) Cellular mechanism of pulsatile LHRH release. *Gen Comp Endocrinol*, 112:283-295.
- Thakur AK, Wetzel LT, Voelker RW & Wakefield AE (1998) Results of a two-year oncogenicity study in the Fischer 344 rats with atrazine. In: Ballantine LG, McFarland JE & Hackett DS, eds. *Triazine Herbicides Risk Assessment*. ACS Symposium Series 683. Washington, D.C.: American Chemical Society, pp. 384-398.
- Thierfelder W, Seher CH, Dortshy R & Engel S (1999) Abnahme der spermaqualität bei gesunden männern aus ungewollt kinderlosen partnerschaften. *Bundesgesundheitsbl Gesundheitsforsch Gesundheitsschutz*, 42:471-478.
- Thomann RV & Connolly JP (1984) Model of PCB in the Lake Michigan lake trout food chain. *Environ Sci Technol*, 2:65-71.
- Thomas JA & Manandhar M (1975) Effects of prolactin and/or testosterone on nucleic acid levels in prostate glands of normal and castrated rats. *J Endocrinol*, 65:149-150.
- Thomas KV, Hurst M, Matthiessen P & Waldock MJ (2001) Characterization of oestrogenic compounds in water samples collected from United Kingdom estuaries. *Environ Toxicol Chem*, 20:2165-2170.
- Thomas P (1999) Nontraditional sites of endocrine disruption by chemicals on the hypothalamus-pituitary-gonadal axis: interactions with steroid membrane receptors, monoaminergic pathways and signal transduction systems. In: Naz RK, ed. *Endocrine Disruptors: Effects on Male and Female Reproductive Systems*. Boca Raton, FL: CRC Press, pp. 3-38.
- Thomas P, Breckenridge-Miller D & Detweiler C (1998) The teleost sperm membrane progesterone receptor: interactions with xenoestrogens. *Mar Environ Res*, 46:163-166.
- Thompson SA, Rowley DR & Heidger PM (1979) Effects of estrogen upon the fine structure of epithelium and stroma in the rat ventral prostate gland. *Invest Urol*, 17:83-89.
- Thompson RR, Adkins-Regan E (1992) Ontogeny of a sexually dimorphic nucleus in the preoptic area of the Japanese quail (*Coturnix japonica*). *Brain Res Dev Brain Res*, 70(2):231-237.
- Thonneau P, Abell A, Larsen SB, Bonde JP, Joffe M, Clavert A, Ducot B, Multinger L & Danscher G for the ASCLEPIOS Study Group (1999) Effects of pesticide exposure on time to pregnancy: Results of a multicenter study in France and Denmark. *Am J*

- Epidemiol, 150:157-163.
- Tian Y, Ke S, Thomas T, Meeker RJ & Gallo MA (1998) Transcriptional suppression of estrogen receptor gene expression by 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD). *J Steroid Biochem Mol Biol*, 67:17-24.
- Tielemans E, Burdorf A, te Velde E, Weber R, van Kooij R, Vuellemans H & Heederik D (1999a) Occupationally related exposures and reduced semen quality: A case-control study. *Fertil Steril*, 71:690-696.
- Tielemans E, van Kooij R, te Velde E, Burdorf A & Heederik D (1999b) Pesticide exposure and decreased fertilisation rates *in vitro*. *Lancet*, 354:484-485.
- Tillitt DE, Ankley GT & Giesy JP (1989) Planar chlorinated hydrocarbons (PCHs) in colonial fish-eating waterbird eggs from the Great Lakes. *Mar Environ Res*, 28:505-508.
- Tillitt DE, Ankley GT, Giesy JP, Ludwig JP, Kurita-Matsuba H, Weseloh DV, Ross PS, Bishop CA, Sileo L, Stromborg KL, Larson J & Kubiak TJ (1992) Polychlorinated biphenyl residues and egg mortality in double-crested cormorants from the the Great Lakes. *Environ Toxicol Chem*, 11:1281-1288.
- Tillitt DE, Wright PJ, Cantrell SM & Hannik M (1996) The role of dioxin-like chemicals in early mortality syndrome of Great Lakes salmonids: Mechanism, affected tissues, and implications for nutritional interactions. *Proc. Am. Fish. Soc. Symp. on Early Mortality Syndrome: Reproductive Disruptions in Fish of the Great Lakes, New York Finger Lakes, and the Baltic Region, Aug. 1996, Dearborn, Minnesota*.
- Tillitt DE, Schmitt CJ, Weseloh DV & Bunck CM (1998) Organochlorine concentrations and trends in North American fish and wildlife. Appendix 3. Ecological Risk Assessment for Organochlorine Compounds. Conference Proceedings of Society of Environmental Toxicology and Chemistry (SETAC), Pensacola, FL, p. 397.
- Tilson HA (1998) The concern for developmental neurotoxicology: Is it justified and what is being done about it? *Environ Health Perspect*, 103:147-151.
- Titus-Ernstoff L, Hatch EE, Hoover RN, Palmer J, Greenberg ER, Ricker W, Kaufman R, Noller K, Herbst AL, Colton T & Hartge P (2001) Long-term cancer risk in women given diethylstilbestrol (DES) during pregnancy. *Br J Cancer*, 84(1):126-133.
- Tobin P (1986) Known potential sources of hexachlorobenzene. In: Morris CR & Cabral JRP, eds. *IARC, Hexachlorobenzene: Proceedings of an International Symposium*. Lyon, France: Oxford University Press.
- Tokunaga M, Land CE & Yamamoto T (1987) Incidence of female breast cancer among atomic bomb survivors, Hiroshima and Nagasaki. *Radiation Res*, 112:243-272.
- Toniolo PG, Levitz M, Zeleniuh-Jacquette A, Banerjee S, Koenig KL, Shore RE, Strax P & Pastermack, BS (1995) A prospective study of endogenous estrogens and breast cancer in postmenopausal women. *J Natl Cancer Inst*, 87:190-197.
- Tonn T, Esser C, Schneider EM, Steinmann-Steiner-Haldenstatt W & Gleichmann E (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*, 104:422-426.
- Toppari J, Larsen JC, Christiansen P, Giwercman A, Grandjean P, Guillette LJ Jr, Jegou B, Jensen TK, Jouannet P, Keiding N, Leffers H, McLachlan JA, Meyer O, Muller O, Rajpert-De Meyts E, Scheike T, Sharpe R, Sumpter J & Skakkebaek N (1995) Male reproductive health and environmental chemicals with estrogenic effects. Copenhagen: Danish Environment Protection Agency, pp. 166.
- Toppari J, Larsen JC, Christiansen P, Giwercman A, Grandjean P, Guillette LJ Jr, Jegou B, Jensen TK, Jouannet P, Keiding N, Leffers H, McLachlan JA, Meyer O, Muller J, Rajpert-De Meyts E, Scheike T, Sharpe R, Sumpter J & Skakkebaek NE (1996) Male reproductive health and environmental xenoestrogens. *Environ Health Perspect*, 104(Suppl 4):741-776.
- Tori G M & Peterle TJ (1983) Effects of PCBs on mourning dove courtship behavior. *Bull Environ Contam Tox*, 30:44-49.
- Torres-Arreola L, Lopez-Carrillo L, Torres-Sanchez L, Cebrian M, Rueda C, Reyes R & Lopez-Cervantes M (1999) Levels of dichloro-diphenyl-triachloroethane (DDT) metabolites in maternal milk and their determinant factors. *Arch Environ Health*, 54:124-129.
- Tremblay L & Van Der Kraak G (1998) Use of a series of homologous *in vitro* and *in vivo* assays to evaluate the endocrine modulating actions of α -sitosterol in rainbow trout. *Aquat Toxicol*, 43:149-162.
- Tremblay L & Van Der Kraak G (1999) Comparison between the effects of the phytosterol β -sitosterol and pulp and paper mill effluents on sexually immature rainbow trout. *Environ Toxicol Chem*, 18:329-336.
- Trock B, White BL, Clarke R & Hilakivi-Clarke L (2000) Metaanalysis of soy intake and breast cancer risk. Third International Symposium on the Role of Soy in Preventing and Treating Chronic Disease. *J Nutr*, 130:653S-680S.
- Troisi GM & Mason CF (1998) PCB-associated alteration of hepatic steroid metabolism in harbor seals (*Phoca vitulina*). *J Toxicol Environ Health A*, 61(8):649-655.
- Tsuji A & Tomai I (1996) Carrier-mediated intestinal transport of drugs. *Pharm Res*, 13:963-977.
- Tsunoda Y, Tokunaga T & Sugie T (1985) Altered sex ratio of live young after transfer of fast-and slow-developing mouse embryos. *Gamete Res*, 12:301-304.
- Tveter KJ & Aakvaag A (1969) Uptake and metabolism *in vivo* of testosterone-1,2-³H by accessory sex organs of male rats: Influence of some hormonal compounds. *Endocrinol*, 85:683-689.
- Twal WO, Zile MH (1997) Retinoic acid reverses ethanol-induced cardiovascular abnormalities in quail embryos. *Alcohol Clin Exp Res*, 21(6):1137-1143.
- Tyl RW, Price CJ, Marr MC & Kimmel CA (1988) Developmental toxicity evaluation of dietary di(2-ethylhexyl)phthalate in Fischer 344 rats and CD-1 mice. *Fundam Appl Toxicol*, 10:395-412.
- Tyler CR & Routledge EJ (1998) Oestrogenic effects in fish in English rivers with evidence of their causation. *Pure Appl Chem*, 70:1795-1804.
- UBA (1997) Workshop on Effects of Endocrine Disruptors in the Environment on Neonatal Development and Behavior. Berlin, Germany, 17-18 February 1997. German Federal Environmental Agency Report 50/98. Berlin: Umweltbundesamt.
- UBA (2001a) Nachhaltigkeit und Vorsorge bei der Risikobewertung und beim Risikomanagement von Chemikalien. Teil II: Umweltchemikalien, die auf das Hormonsystem wirken - Belastungen, Auswirkungen, Minderungsstrategien. (Sustainable and Precautionary Risk Assessment of and Risk Management of

- Chemicals. Part II. Chemicals in the Environment Which Interfere with the Endocrine Systems of Human and Wildlife). Texte 30/01. Berlin: Umweltbundesamt.
- UBA (2001b) Organische zinnverbindungen, alkylphenole, und bisphenol A in marinen und limnischen der umweltprobenbank. Berlin: Umweltbundesamt (German Environmental Agency).
- UNEP (1997) United Nations Environment Programme, International Workshop on Endocrine Disruptors. UNCP Chemicals, Geneva, Switzerland.
- UNEP (1998) United Nations Environment Programme, Environmental Effects of Ozone Depletion: 1998 Assessment. Geneva, Switzerland.
- UNEP (2001) United Nations Environment Programme, Final Act of the Conference of Plenipotentiaries on the Stockholm Convention on Persistent Organic Pollutants (UNEP/POPS/CONF/4)22, Stockholm, Sweden.
- Unger M, Kiaer H, Blichert-Toft M, Olsen J, Clausen J (1984) Organochlorine compounds in human breast fat from decreased with and without breast cancer and in a biopsy material from newly diagnosed patients undergoing breast surgery. *Environ Res*, 34(1):24-28.
- Ursin G, Henderson BE, Haile RW, Pike MC, Zhou N, Diep A & Bernstein L (1997) Does oral contraceptive use increase the risk of breast cancer in women with BRCA1/BRCA2 mutations more than in other women? *Cancer Res*, 57:3678-3681.
- US EPA (1994) Estimating exposure to dioxin-like compounds. EPA/600/6-88/005Ca-c. Washington, D.C.:Office of Research and Development, U.S. Environmental Protection Agency.
- US EPA (1997) Special Report on Environmental Endocrine Disruption: An Effects Assessment and Analysis. Report No. EPA/630/R-96/012, February. Risk Assessment Forum. Washington, D.C.: U.S. Environmental Protection Agency.
- US EPA (1998a) Endocrine Disruptor Screening and Testing Advisory Committee (EDSTAC) Final Report. Available: <http://www.epa.gov/opptintr/opptendo/finalrpt.htm>
- US EPA (1998b) EPA Health Effects Test Guidelines OPPTS 870.3800: Reproduction and Fertility Effects. EPA 712-C-98-208, August 1998. Washington D.C.: U.S. Environmental Protection Agency.
- US FDA (1999) Food and Drug Administration proposed testing guidelines for reproduction studies. US FDA Revision Committee. *Regul Toxicol Pharmacol*, 30:29-38.
- Valkirs AO, Davidson B, Kear LL & Fransham RL (1991) Longterm monitoring of tributyltin in San Diego Bay California. *Mar Environ Res*, 32:151-167.
- van Birgelen APJMM & van den Berg M (2000) Toxicokinetics. *Food Addit Contam*, 17:267-273.
- van den Bergh P, Rozing J & Nagelkerken L (1991) Opioid receptors as cytokines in T cell activation. *Adv Neuroimmunol*, 1:189-203.
- Van Der Kraak GJ, Hewitt M, Lister A, McMaster M & Munkittrick K (2001) Endocrine toxicants and reproductive success in fish. *Hum Ecol Risk Assess*, 7:1017-1025.
- Van Der Kraak GJ, Munkittrick KR, McMaster ME, Portt CB & Chang JP (1992) Exposure to bleached kraft mill effluent disrupts the pituitary-gonadal axis of white sucker at multiple sites. *Toxicol Appl Pharmacol*, 115:224-233.
- Van Der Kraak GJ, Munkittrick KR, McMaster ME, Larsson Å, Förlin O, Sandström J, Jardine J & Okes K (1997) The utility of measuring plasma sex steroid levels in assessing the reproductive fitness of fish. *Proc. 3rd Int. Conf. on Environmental Fate and Effects of Pulp and Paper Mill Effluents*, Rotorua, New Zealand, 9-13 November 1997.
- Van Der Kraak GJ, Munkittrick KR, McMaster ME & MacLatchy DL (1998a) A comparison of bleached kraft mill effluent, 17 β -estradiol, and α -sitosterol effects on reproductive function in fish. In: Kendall RJ, Dickerson RL, Giesy JP & Suk WA, eds. *Principles and Processes for Evaluating Endocrine Disruption in Wildlife*. SETAC Technical Publication. Pensacola, FL: SETAC Press, pp. 249-265.
- Van Der Kraak G, Zacharewski T, Janz DM, Sanders BM & Gooch JW (1998b) Comparative endocrinology and mechanisms of endocrine modulation in fish and wildlife. In: Kendall RJ, Dickerson RL, Giesy JP & Suk WA, eds. *Principles and Processes for Evaluating Endocrine Disruption in Wildlife*. SETAC Technical Publication. Pensacola, FL: SETAC Press, pp. 97-119.
- Van der Pal-de-Bruin KM, Verloove-Vanhorick SP & Roeleveld N (1997) Change in male:female ratio among newborn babies in Netherlands. *Lancet*, 349:62.
- Van Garderen E, de Wit M, Voorhout W, Rutteman G, Mol J, Nederbragt H & Misdorp W (1997) Expression of growth hormone in canine mammary tissue and mammary tissues. *Am J Pathol*, 150:1037-1047.
- Van Leeuwen FE, Benraadt J, Coebergh JW, Kiemeny LA, Gimbere CH, Otter R, Schouter LJ, Damhuyis RA, Bontenbal M, Diepenhorst FW, Van den Belt-Busebout AW & Van Tinteren H (1994) Risk of endometrial cancer after tamoxifen treatment of breast cancer. *Lancet*, 343:448-452.
- Van Leeuwen FXR, Feeley M, Schrenk D, Larsen JC, Farland F & Younes M (2000) Dioxins: WHO's tolerable daily intake (TDI) revisited. *Chemosphere*, 40:1095-1001.
- Van Leeuwen FXR & Younes MM (2000) Assessment of the health risk of dioxins: Re-evaluation of the tolerable daily intake (TDI). *Food Addit Contam*, 17:223-369.
- Van Tienhoven A (1983) *Reproductive Physiology of Vertebrates*. Ithaca, NY: Cornell University Press.
- Van Waeleghem K, De Clercq N, Vermeulen E, Schoonjans F & Comhaise F (1996) Deterioration of sperm quality in young healthy Belgian men. *Hum Reprod*, 11:325-329.
- Van Winter JT, Noller KL, Zimmerman D & Melton LJ III (1990) Natural history of premature thelarche in Olmstead County, Minnesota, 1940-1984. *J Pediatr*, 116:278-280.
- Van Zeil H (1997) Report of the Results of the One-Off Survey DIFFCHEM, Oslo and Paris Commissions SIMM 97/6/1-E.
- van't Veer P, Lobbezoo IE, Martin Moreno JM, Gullar E, Gúmez-Aracena J, Kardinaal AFM, Kohlmeier L, Martin BC, Strain JJ, Thamm M, van Zoonen P, Baumann BA, Huttunen JK & Kok FJ (1997) DDT (dicophane) and postmenopausal breast cancer in Europe: Case control study. *Brit Med J*, 315:81-85.
- Vandenbergh JG & Huggett CL (1994) Mother's prior intrauterine position affects the sex ratio of her offspring in house mice. *Proc Natl Acad Sci USA*, 91(23):11055-11059.
- Vandersea MW, Fleming P, McCarthy RA & Smith DG (1998) Fin duplications and deletions induced by disruption of retinoic acid signaling. *Dev. Genes Evol*, 208:61-68.
- Vartianen T, Kartovaara L & Tuomisto J (1999) Environmental chemicals and changes in sex ratio: analysis over 250 years in Finland. *Environ Health Perspect*, 107:813-815.
- Vaughan T, Ryan J & Czaplowski N (2000) *Mammalogy*, Fourth Edition. Orlando, FL: Harcourt College Publishers.
- Veeramachaneni DNR (2000) Deteriorating trends in male reproduction: idiopathic or environmental? *Anim Reprod Sci*, 60-

61:121-130.

Veeramachaneni DN & Sawyer HR (1998) Carcinoma *in situ* and seminoma in equine testis. *Acta Pathol Microbiol Immunol Scand*, 106:183-185.

Veeramachaneni DN & Van de Woude S (1999) Interstitial cell tumour and germ cell tumour with carcinoma *in situ* in rabbit testes. *Int J Androl*, 22:97-101.

Vercillini P, Oldani S, De Giorgi O & Crosignani PG (1995) Endometriosis: An overview of descriptive and analytic epidemiological

studies. In: Coutinho EM, Spinola P & de Moura LH, eds. *Progress in the Management of Endometriosis*. New York: Parthenon Publishing Group, pp. 221-236.

Vierula M, Niemi M, Keiski A, Saaranen, Saarikoski S & Suominen J (1996) High and unchanged sperm counts of Finnish men. *Int J Androl*, 19:11-17.

Vinson GP, Whitehouse B & Hinson J (1993) *The Adrenal Cortex*. Englewood Cliffs, NJ: Prentice Hall.

Virtanen HE, Kaleva M, Haavisto AM, Schmidt IM, Chellakooty M, Main KM, Skakkebaek NE, Toppari J (2001) The birth rate of hypospadias in the Turku area in Finland. *APMIS*, 109:96-100.

vom Saal FS, Nagel SC, Palanza P, Boechler M, Parmigiani S & Welshons WV (1995) Estrogenic pesticides: Binding relative to estradiol in MCF-7 cells and the effects of exposure during fetal life on subsequent territorial behavior in mice. *Toxicol Lett*, 77:343-350.

vom Saal FS, Timms BG, Montano M, Palanza P, Thayer KA, Nagel SC, Dhar MD, Ganjam VK, Parmigiani S & Welshons W (1997) Prostate enlargement in mice due to fetal exposure to low doses of estradiol or diethylstilbestrol and opposite effects at high doses. *Proc Natl Acad Sci USA*, 94:2056-2061.

Von Westernhagen H, Rosenthal H, Dethlefsen V, Ernst W, Harms U & Hansen PD (1981) Bioaccumulating substances and reproductive success in Baltic flounder, *Platichthys flesus*. *Aquat Toxicol*, 1:85-99.

Vorherr H, Messer RH, Vorherr UF, Jordan SW & Kornfeld M (1979) Teratogenesis and carcinogenesis in rat offspring after transplacental and transmammary exposure to diethylstilbestrol. *Biochem Pharmacol*, 28:1865-1877.

Vos JG & Moore JA (1974) Suppression of the cellular immunity in rats and mice by maternal treatment with 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. *Int Arch Allergy Appl Immunol*, 47:777-794.

Vos JG & Luster MI (1989) Immune alterations. In: Kimbrough RD & Jensen AA, eds. *Halogenated Biphenyls, Terphenyls, Naphthalenes, Dibenzodioxins and Related Products*. Amsterdam: Elsevier, pp. 295-322.

Vos JG, De Heer C & Van Loveren H (1997/98). Immunotoxic effects of TCDD and toxic equivalency factors. *Terat Carcinog Mut*, 17:275-284.

Vos JG, Dybing E, Greim H, Ladefoged O, Lambre C, Tarazona JV, Brandt I & Vethaak AD (2000) Health effects of endocrinedisrupting

chemicals on wildlife, with special reference to the European situation. *Crit Revs Toxicol*, 30(1):71-133.

Vuorinen PJ, Paasivirta J, Keinänen M, Koistinen J, Rantio T, Hyötyläinen T & Welling L (1997a) The M74 syndrome of Baltic salmon (*Salmo salar*) and organochlorine concentrations in the muscle of female salmon. *Chemosphere*, 34:1151-1166.

Vuorinen PJ, Keinänen M, Brouwer A, Vartiainen T, Spenkelink A & Schipholt I (1997b) Retinoids and thyroid hormones and toxicant

loads with the occurrence of the M74 syndrome in Baltic salmon. In: Högmander H & Oikari A, eds. *Proceedings of the Third Finnish Conference of Environmental Sciences*, Jyväskylä, Finland, May 9-10, 1997, University of Jyväskylä, pp. 302-305.

Vuorinen PJ & Keinänen M (1999) Environmental toxicants and thiamine in connection with the M74 syndrome in Baltic salmon (*Salmo salar*). In: Bengtsson B-E, Hill C & Nellbring S, eds.

Nordic Research Cooperation on Reproductive Disturbances in Fish. Report from the *Redfish* Project. TemaNord report no. 530, Copenhagen: Nordic Council of Ministers, pp. 25-35 (ISBN 92-893-0341-7).

Wada T, Ueda M, Abe K, Kobari T, Yamazaki H, Nakata J, Ikemoto I, Ohishi Y & Aizawa Y (1999) Risk factor of liver disorders caused by flutamide—statistical analysis using multivariate logistic regression analysis (Japan). *Hinyokika Kyo*, 45:521-526.

Wagner M, Thaller C, Jessell T & Eichele G (1990) Polarizing activity and retinoid synthesis in the floor plate of the neural tube. *Nature*, 345:819-822.

Wahlberg C, Renberg L & Wideqvist U (1990) Determination of nonylphenol and nonylphenol ethoxylates as their pentafluorobenzoates

in water, sewage sludge and biota. *Chemosphere*, 20:179-195.

Waite ME, Waldock MJ, Thain JE, Smith DJ & Milton SM (1991) Reductions in TBT concentrations in UK estuaries following legislation in 1986 and 1987. *Mar Environ Poll*, 32:89-111.

Walker MK & Peterson RE (1994) Toxicity of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin to brook trout (*Salvelinus fontinalis*) during early development. *Environ Toxicol Chem*, 13:817-820.

Walkowiak J, et al. (2001) Environmental exposure to polychlorinated biphenyls and quality of the home environment: Comparing their influence on psychodevelopment in early childhood. *Lancet*, 358(9293):1602-1607.

Walvoord DJ, Resnick MJ & Grayhack JT (1976) Effect of testosterone, dihydrotestosterone, estradiol, and prolactin on the weight and citric acid content of the lateral lobe of rat prostate. *Invest Urol*, 14:50-65.

Waller C, Juma B, Gray LE & Kelce W (1996a) Three dimensional quantitative structure activity relationships for androgen receptor ligands. *Toxicol Appl Pharm*, 137:219-227.

Waller CL, Oprea TI, Chae K, Park HK, Korach KS, Laws SC, Wiese TE, Kelce WR & Gray LE (1996b) Ligand based identification of environmental estrogens. *Chem Res Toxicol*, 9:1240-1248.

Waller DP, Martin A, Vickery BH & Zaneveld LJ (1990) The effect of ketoconazole on fertility of male rats. *Contraception*, 41:411-417.

Ward EM, Schulte P, Grajewski B, Andersen A, Patterson DG, Turner W, et al. (2000) Serum organochlorine levels and breast cancer: A nested case-control study of Norwegian women. *Cancer Epidemiol Biomark Prev*, 9:1357-1367.

Ward JM, Peters JM, Perella CM & Gonzalez FJ (1998) Receptor and non-receptor mediated organ-specific toxicity of di(2-ethylhexyl) phthalate (DEHP) in peroxisome-activated receptor alphanull mice. *Toxicol Pathol*, 26(2):240-246.

Wassermann M, Nogueira DP, Tomatis L, Mirra AP, Shibata H, Arie G, Cucos S, Wasserman D (1976) Organochlorine compounds in neoplastic and adjacent apparently normal breast tissue. *Bull Environ Contam Toxicol*, 15(4):478-484.

Watson S & Gametch B (1999) Membrane-initiated steroid

- actions and the proteins that initiate them. PSEBM. 220:9-19.
- Ways SC, Mortola JF, Zvaifler NJ, Weiss RJ, Yen SSC (1987) Alterations in immune responsiveness in women exposed to diethylstilbestrol *in utero*. Fertil Steril, 48:193-197.
- Weber RF, Pierik FH, Dohle GR, Burdorf A (2002) Environmental influences on male reproduction. BJU Int, 89(2):143-148.
- Weeks JA, Adams WJ, Guiney PD, Hall JF, Naylor CG (1996) Risk assessment of nonylphenol and its ethoxylates in U.S. river water and sediment. In: Proceedings of the 4th Surfactants Conference, Barcelona, Spain, June 3-7, 1996. Royal Society of Chemistry, Cambridge, U.K. Vol. 3, pp. 276-291 (ISBN 0-85404-741-1).
- Weigent DA & Blalock JE (1995). Associations between the neuroendocrine and immune systems. J Leukoc Biol, 57:137-150.
- Weigle WO (1997) Advances in basic concepts of autoimmune disease. Clin Lab Med, 17(3):329-340.
- Weinberg CR, Baird DD & Wilcox AJ (1994) Sources of bias in studies of time to pregnancy. Statistics in Medicine 13:671-681.
- Weisglas-Kuperus N, Sas TC, Koopman-Esseboom C, van der Zwan CW, De Ridder MA, Beishuizen A, Hooijkaas H, Sauer PJ (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, Patandin S, Berbers GA, Sas TC, Mulder PG, Sauer PJ, Hooijkaas H (2000) Immunologic effects of background exposure to polychlorinated biphenyls and dioxins in Dutch preschool children. Environ. Health Perspect, 108(12):1203-1207.
- Wenger RH, Gassmann M (1997) Oxygen(es) and the hypoxia-inducible factor-1. Biol Chem, 378(7):609-616.
- Weseloh DVC, Ewins PJ (1994) Characteristics of a rapidly increasing colony of double-crested cormorants (*Phalacrocorax auritus*) in Lake Ontario: Population size, reproductive parameters and band recoveries. J Great Lakes Res, 20:443-456.
- Whitten PL, Patisaul HB (2001) Cross-species and interassay comparisons of phytoestrogen action. Environ Health Perspect, 109(Suppl 1):5-20.
- WHO (1997) Health and Environment in Sustainable Development—Five Years after the Earth Summit. Geneva, Switzerland: World Health Organization.
- Wibbels T, Crews D (1995) Steroid-induced sex determination at incubation temperatures producing mixed sex ratios in a turtle with TSD. Gen Comp Endocrinol, 100(1):53-60.
- Wibbels T, Cowan J, LeBoeuf R (1998) Temperature-dependent sex determination in the red-eared slider turtle, *Trachemys scripta*. J Exp. Zool, 281(5):409-416.
- Wideqvist U, Jansson B, Olsson M Odsjö T, Reutergårdh L, Uvemo U-B (1993) Temporal trends of PCC in Guillemot eggs from the Baltic. Chemosphere 27:1987-2001.
- Wiese TE, Garrison AW, Nehls S, Bishop TC (1999) Selective *in vitro* hormone activity of *o,p'*-methoxychlor optical isomers. American Chemical Society Division of Environmental Chemistry. Extended Abstracts, 2:196-198.
- Wiig O, Derocher AE, Cronin MM, Skaare JU (1998) Female pseudohermaphrodite polar bears at Svalbard. J Wildl Dis, 34(4):792-796.
- Wilcox AJ, Baird DD, Weinberg CR, Hornsby PP, Herbst AL (1995) Fertility in men exposed prenatally to diethylstilbestrol. N Engl J Med, 332(21):1411-1416.
- Willett WC (2001) Diet and breast cancer. J Intern Med, 249(5):395-411.
- Williams FL, Lawson AB, Lloyd OL (1992) Low sex ratios in areas at risk from air pollution from incinerators, as shown by geographical analysis and 3-dimensional mapping. Int J Epidemiol, 21:311-319.
- Williams FL, Ogston SA, Lloyd OL (1995) Sex ratios of births, mortality, and air pollution: can measuring the sex ratios of births help to identify health hazards from air pollution in industrial environments? Occup Environ. Med, 52:164-169.
- Williams DR, Fisher MJ, Rees HH (2000) Characterization of ecdysteroid 26-hydroxylase: An enzyme involved in molting inactivation. Arch Biochem Biophys, 376(2):389-398.
- Willingham E, Baldwin R, Skipper JK, Crews D (2000) Aromatase activity during embryogenesis in the brain and adrenal-kidney gonad of the red-eared slider turtle, a species with temperature-dependent sex determination. Gen Comp Endocrinol, 119(2):202-207.
- Wine RN, Ling-Hong L, Barnes LH, Gulati DK, Chapin RE (1997) Reproductive toxicity of di-*n*-butylphthalate in a continuous breeding protocol in Sprague-Dawley rats. Environ Health Perspect, 105(1):102-107.
- Wing KD (1988) RH 5849, a nonsteroidal ecdysone agonist: effects on a *Drosophila* cell line. Science, 241(4864):467-469.
- Wingard DL, Turiel J (1988) Long-term effects of exposure to diethylstilbestrol. West J Med, 149(5):551-554.
- Wingfors H, Lindstrom G, van Bavel B, Schuhmacher M, Hardell L (2000) Multivariate data evaluation of PCB and dioxin profiles in the general population in Sweden and Spain. Chemosphere, 40(9-11):1083-1088.
- Winneke G, Bucholski A, Heinzow B, Kramer U, Schmidt E, Walkowiak J, Wiener JA, Steingruber HJ (1998) Developmental neurotoxicity of polychlorinated biphenyls (PCBS): Cognitive and psychomotor functions in 7-month old children. Toxicol Lett, 102-103:423-428.
- Wolf CJ, Ostby JS, Gray LE 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.
- Wolff MS, Toniolo PG, Lee EW, Rivera M, Dubin N (1993) Blood levels of organochlorine residues and risk of breast cancer. J Natl Cancer Inst 85:648-652.
- Wolff MS, Collman GW, Barrett JC, Huff J (1996) Breast cancer and environmental risk factors: Epidemiological and experimental findings. Annu Rev Pharmacol Toxicol, 36:573-596.
- Wolff MS, Zeleniuch-Jacquotte A, Dubin N, Toniolo P (2000a) Risk of breast cancer and organochlorine exposure. Cancer Epidemiol Biomark Prev, 9:271-277.
- Wolff MS, Berkowitz MS, Brower S, Senie R, Bleiweiss IJ, Tarter P, Pace B, Roy N, Wallenstein S & Weston A (2000b) Organochlorine exposures and breast cancer risk in New York City women. Environ Res, 84:151-161.
- Wolffe AP, Collingwood TN, Li Q, Yee J, Urnov F, Shi YB (2000) Thyroid hormone receptor, v-ErbA, and chromatin. Vitam Horm, 58:449-492.
- Wong, CS, Garrison AW (2000) Enantiomer separation of polychlorinated

- biphenyl atropisomers and polychlorinated biphenyl retention behavior on modified cyclodextrin capillary gas chromatography columns. *J Chromatogr A*, 866:213-220.
- Woog CH, Nilsson GM, Heierson A, McDonnell DP, Katzenellenbogen BS (1992) Structural requirements for high affinity ligand binding by estrogen receptors: A comparative analysis of truncated and full length estrogen receptors expressed in bacteria, yeast, and mammalian cells. *Mol Endocrinol*, 6(6):861-869.
- Wren CD (1991) Cause-effect linkages between chemicals and populations of mink (*Mustela vison*) and otter (*Lutra canadensis*) in the Great Lakes basin. *J Toxicol Environ Health*, 33(4):549-585.
- Wyatt R, Wilson AM (1973) Children of anaesthetists. *Brit Med J*, 1:675.
- Yang JZ and Foster WG (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 JZ, Yagminas A, Foster WG (1997) Stimulating effects of 4-chlorodiphenyl ether on surgically induced endometriosis in the mouse. *Reprod Toxicol*, 11(1):69-75.
- Yang JZ, Agarwal SK, Foster WG (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.
- Yao TP, Forman BM, Jiang Z, Cherbas L, Chen JD, Evans RM (1993) Functional ecdysone receptor is the product of EcR and Ultraspacle genes. *Nature* 366:476-479.
- Yoshimura K (1986) Biodegradation and fish toxicity of nonionic surfactants. *Journal of American Oil Chemistry Society*, 63:1590-1596.
- You L, Casanova M, Archibeque-Engle A, Sar M, Fan LQ, Heck HA (1998) Impaired male sexual development in perinatal Sprague-Dawley and Long-Evans hooded rats exposed *in utero* and lactationally to *p,p'*-DDE. *Toxicol Sci*, 45(2):162-173.
- You L, Chan SK, Bruce JM, Archibeque-Engle S, Casanova M, Corton JC, Heck HA (1999a) Modulation of testosterone metabolism hepatic cytochrome (p-450) enzymes in developing Sprague-Dawley rats following *in utero* exposure to *p,p'*-DDE. *Toxicol Sci*, 158:97-205.
- You L, Brenneman KA, Heck HA (1999b) *In utero* exposure to antiandrogens alters the responsiveness of the prostate to *p,p'*-DDE in adult rats and may induce prostatic inflammation. *Toxicol Sci*, 161:258-266.
- YoungLai EV, Collins JA, Foster WG (1998) Canadian semen quality: An analysis of sperm density among eleven academic fertility centers. *Fertil Steril*, 70(1):76-80.
- Yuan JM, Wang QS, Ross RK, Henderson BE, Yu MC (1995) Diet and breast cancer in Shanghai and Tianjin, China. *Br J Cancer*, 1(6):1353-1358.
- Zacharewski TR, Meek MD, Clemons JH, Wu ZF, Fielden MR, Matthews JB (1998) Examination of the *in vitro* and *in vivo* estrogenic activities of eight commercial phthalate esters. *Toxicol Sci*, 46(2):282-293.
- Zheng T, Holford TR, Mayne ST, Ward B, Carter D, Owens PH, Dubrow R, Zahn SH, Boyle P, Archibeque S & Tessari J (1999) DDE and DDT in breast adipose tissue risk of female breast cancer. *Am J Epidemiol* 150:453-458.
- Zober A, Hoffmann G, Ott MG, Will W, Germann C, van Ravenzwaay B (1995) Study of morbidity of personnel with potential exposure to vinclozolin. *Occup Environ Med*, 52(4):233-241.
- Zorn B, Virant-Klun I, Verdenik I & Maden-Urtovec H (1999) Semen quality changes among 2343 healthy Slovenian men included in an IVF-ET programme from 1983 to 1996. *Int J Androl*, 22:178-183.
- Zukerman Z, Rodriguez-Rigau LJ, Smith KD & Steinberger E (1977) Frequency distribution of sperm counts in fertile and infertile males. *Fertil Steril*, 28:1310.