1	Appendix J
2	
3	References and Sources for Chapter Five – Screening and Testing
4	
5	Table of Contents
6	

Mammalian *In Vitro* and *In Vivo* Assays (Recommended and I. Considered)

- Aakvaag A., E. Utaaker, T. Thorsen, O.A. Lea, and H. Lahooti, "Growth control of human mammary cancer cells (MCF-7 cells) in culture: effect of estradiol and growth factors in serum-containing medium," *Cancer Research*, 50, 1990, pp. 7806-10.
- Aitken S.C., M.E. Lippman , A. Kasid, and D.R. Schoenberg, "Relationship between the expression of estrogen-regulated genes and estrogen-stimulated proliferation of MCF-7 mammary tumor cells," *Cancer Research*, 45, 1985, pp. 2608-15.
- Allegretto, E., and R. Heyman, "Intracellular Receptor Characterization And Ligand Screening By Transactivation And Hormone-Binding Assays," *Methods in Molecular Genetics*, 8, 1996, pp. 405-420.
- Allen, E., and E. Doisy, "The induction of a sexually mature condition in immature females by injection of the ovarian follicular hormone," *American Journal of Physiology* 69, 1924, pp. 577.
- Arai, Y., T. Mori, Y. Suzuki, and Bern, "Long-term effects of perinatal exposure to sex steroids and diethylstilbestrol on the reproductive system of male mammals," *International Review* of Cytology, 84, 1983, pp. 235-268.
- Armstrong, D. T., J.H. Dorrington, J. Robinson, "Effects of indomethacin and aminoglutethimide phosphate *in vivo* on luteinizing-hormone-induced alterations of cyclic adenosine monophosphate, prostaglandin F, and steroid levels in preovulatory rat ovaries," *Canadian Journal Biochemistry*, 54, 1976, pp. 796-802.
- Arnold, S. F., D.M. Klotz, B.M. Collins, P.M. Vonier, L.J. Guillette, and J.A. Mclachlan, "Synergistic activation of estrogen receptor with combinations of environmental chemicals," *Science*, 272, 1996, pp. 1489-1492.
- Arnold, S. F., M.K. Robinson, A.C. Notides, L.J. Guillette, and J.A. Mclachlan, "A yeast estrogen screen for examining the relative exposure of cells to natural and xenoestrogens," *Environ Health Perspect*, 104, 1996, pp. 544-548.
- Astwood, W., "As assay method for progesterone based upon the decidual reaction in the rat," *Journal of Endocrinology*, 1, 1939, pp. 49.
- Balaguer P., A. Joyeux, M.S. Denison, R. Vincent, B.E. Gillesby and T. Zacharewski, "Assessing the estrogenic and dioxin-like activities of chemicals and complex mixtures using *in vitro* recombinant receptor-reporter gene assays," *Canadian Journal of Physiology and Pharmacology*, 74, 1996, pp. 216-222.
- Berman, E., and J. Laskey, "Altered steroidogenesis in whole-ovary and adrenal culture in cycling rats," *Reproductive Toxicology*, 7, 1993, pp. 349-358.
- Briand P, and A.E. Lykkesfeldt, "Long-term cultivation of a human breast cancer cell line, MCF7, in chemically defined medium. Effect of estradiol," *Anticancer Res.*, 6, 1986, pp. 85-90.
- Brooks S.C., E.R. Locke, and H.D. Soule, "Estrogen receptor in a human cell line (MCF-7) from breast carcinoma," *Journal of Biological Chemistry*, 248, 1973, pp. 6251-3.
- Brotons J. A., M.F. Olea-Serrano, M. Villalobos, V. Pedraza, N. Olea, "Xenoestrogens released from lacquer coating in food cans," *Environ Health Perspect.*, 103, 1995, pp. 608-613.

- Butler, W., W.L. Kirkland, T. Gargala, N. Goran, W.H. Kelsey, P. Berlinski, "Steriod stimulation of plasminogen activator production in a human breast cancer cell line (MCG-7)," *Cancer Res.*, 43, 1983, pp. 1637-1641.
- Butler W.B., "Preparing nuclei from cells in monolayer cultures suitable for counting and for following synchronized cells through the cell cycle," *Analytical Biochemistry*, 141, 1984, pp. 70-3.
- Chapin, R., M. Harris, M. Shelby, R. Smialowicz, V. Moser, S. Padilla, R. MacPhail, and S. Berone, "The effects of perinatal/juvenile pesticide exposure on adult CNS, Immune and reproductive function in rats," *The Toxicologist, pp.* 30-52.
- Clark M., R.D. Cramer, D.M. Jones, D.E. Patterson, P.E. Simeroth, "Comparative Molecular Field Analysis (CoMFA), 2, Toward its use with 3D-Structural Databases," *Tetrahedron Comp Meth.*, 3, 1990, pp. 47-59.
- Conner, J., J. Cook, C. Craven, C. Van Pelt, J. and Obourn, "An *in vivo* battery for identifying endocrine modulators that are estrogenic or dopamine regulators," *Fundamental and Applied Toxicology*, 33,1996, in print.
- Cramer R. D. I., D.E. Patterson, J.D. Bunce, "Comparative molecular field analysis (CoMFA), 1, Effect of shape on binding of steroids to carrier Proteins," *J Am Chem Soc.*, 110, 1988, pp. 5959-5967.
- Cummings, A., "Toxicological mechanisms of implantation failure," *Fundamental and Applied Toxicology*, 15,1990, pp. 571-579.
- Cummings, A., and L. Gray, "Antifertility effect of methoxychlor in female rats: Dose- and timedependent blockade of pregnancy," *Toxicology and Applied Pharmacolog*, 97, 1989, pp. 454-462.
- Dell'Aquila M. L., D.A. Pigott, D.L. Bonaquist and E.V. Gaffney, "A factor from plasma-derived human serum that inhibits the growth of the mammary cell line MCF-7: characterization and purification," *Journal of the National Cancer Institute*, 72, 1984, pp. 291-8.
- Desbrow, C., M. Waldock, D. Sheahan, M. Blackburn, E. Routledge, J. Sumpter, and G. Brighty, "The identification of compounds causing endocrine disruption in fish in UK rivers," *17th Annual Society of Environmental Toxicology and Chemistry Abstract 190*.
- Devleeschouwer N., N. Legros, N. Olea-Serrano, R. Paridaens and G. Leclercq, "Estrogen conjugates and serum factors mediating the estrogenic trophic effect on MCF-7 cell growth," *Cancer Research*, 47, 1987, pp. 5883-7.
- Dodds, E., W. Lawson, and R. Noble, R., "Biological effects of the synthetic oestrogenic substance 4:4'-dihydroxy-I:B-diethylstilbene," *Lancet* 139, 1938, pp. 627.
- Eisman J.A., T.J. Martin, I. MacIntyre, R.J. Frampton, J.M. Moseley and R. Whitehead R., "1,25-Dihydroxyvitamin D3 receptor in a cultured human breast cancer cell line (MCF 7 cells)," *Biochemical & Biophysical Research Communications*, 93, 1980, pp. 9-15.
- Fail, P, Pearce, S. Anderson, R. Tyl, and L. Gray, "Endocrine and reproductive toxicity of vinclozolin in male Long-Evans hooded rats," *The Toxicologist*, 15, 1993, pp. 293.
- Gaido, K. W., L.S. Leonard, S. Lovell, J.C. Gould, D. Babai, C.J. Portier, D.P. McDonnell, "Evaluation of chemicals with endocrine modulating activity in a yeast-based steroid hormone receptor gene transcription assay," *Toxicol. Appl. Pharmacol, 1996.* (submitted).

- Gaido, K.W., L. S. Leonard, S. Lovell, J.C. Gould, D. Babai, C.J. Portier, D.P. McDonnell, "Evaluation of chemicals with endocrine modulating activity in a yeast-based steroid hormone receptor gene transcription assay," *Toxicol. Appl. Pharmacol.*, 1996, (submitted).
- Gajdova, M., J. Jakubpvsky, and J. Valky, "Delayed effects of neonatal exposure to Tween 80 on female reproductive organs in rats," *Food and Chemical Toxicology*, 31(3), 1993, pp. 183-190.
- Gellert, R. J., W. L. Heinrichs, and R. Swerdloff, "Effects of neonatally-administered DDT homologs on reproductive function in male and female rats," *Neuroendocrinology*, 16, 1974, pp. 84-94.
- Gellert, R. J., Kepone, Mirex, Dieldrin and Aldrin, "Estrogenic activity and the induction of persistent vaginal estrus and anovulation in rats following neonatal treatment," *Environmental Research*, 16, 1978a, pp. 131-138.
- Gellert, R. J., "Uterotrophic activity of polychlorinated biphenyls and induction of precocious reproductive aging in neonatally treated female rats," *Environ. Res.*, 16, 1978b, pp. 123-130.
- Gellert, R. J. and C. Wilson, "Reproductive function in rats exposed prenatally to pesticides and polychlorinated biphenyls (PCB)," *Environmental Research*, 18, 1979, pp. 437-443.
- Glasser, S., R. Northcutt, F. Chytil, and C. Strott, "The influence of an antisteroidogenic drug (aminoglutethimide phosphate) on pregnancy maintenance," *Endocrinology*, 90, 1972, pp. 1363-1370.
- Goldman, A. S., R.D. Eavey, M.K. Baker, "Production of male pseudohermaphroditism in rats by two new inhibitors of steroid 17I-hydroxylase and C17-20 lyase," J. Endocrinology, 71, 1976, pp. 289-297.
- Goodman and Gillman's, "*The Pharmacological basis of therapeutics*," Eighth Edition, MacMillian, 1990.
- Gorski, R. A., J.H. Gordon, J.E. Shryne, and A.M. Southam, "Evidence for a morphological sex difference within the medial preoptic area of the rat brain," *Brain Research*, 148, 1978, pp. 333-346.
- Gray, L. E. Jr., "Neonatal chlordecone exposure alters behavioral sex differentiation in female hamsters," *Neurotoxicology*, 3(2), 1982, pp. 67-80.
- Gray, L. E. J.S. Ostby, and W.R. Kelce, "Developmental effects of an environmental antiandrogen: The fungicide vinclozolin alters sex differentiation of the male rats," *Toxicology and Applied Pharmacology*, 129, 1994, pp. 46-52.
- Gray, L. E. Jr., J. Ostby, R. Sigmon, R. Linder, "A Fungicide (Fenarimol) That Inhibits Fungal Sterol Synthesis Also Reduces Mating Behavior and Fertility in Male Rats," *Biol of Reproduction Supplement*, 1991.
- Gray, L. E. Jr., J. Ostby, J. Ferrell, and J. Goldman, "Methoxychlor- Induced Alterations of Estrogen-Dependent Running Wheel Activity, The Reproductive Tract and Pituitary Function in the Female Rat," *Toxicology and Applied Pharmacology*, 96, 1998, pp. 525-540.
- Gray, L. E., G. Klinefelter, W. Kelce, J. Laskey, J. Ostby, R. Marshall, and L. Ewing, "An *in vivo* and *in vitro* comparison of the effects of ethane dimethanesulfonate (EDS) on Leydig cell function in hamsters and rats," *Tox. Appl. Pharmacol.* 130, 1995, pp. 248-256.

- Gray, L. E., E. Monosson, and W. Kelce, "Emerging issues: the effects of endocrine disrupters on reproductive development," *Interconnections between human; and ecosystem health*, 1996, Chapter 4.
- Gray, L. E. Jr., "Neonatal chlordecone exposure alters behavioral sex differentiation in female hamsters," *Neurotoxicology*, 3(2), 1982, pp. 67-80.
- Gupta, C., "The role of epidermal growth factor receptor (EGFR) in male reproductive tract differentiation," *Endocrinology*, 137, pp. 905-910.
- Gupta, C., S. Siegel, and E. Ellis, "The role of EGF in testosterone-induced reproductive tract differentiation," *Developmental Biology*, 146, 1991, pp. 106-116.
- Hardy, M. P., W.R. Kelce, G.R. Klinefelter, and L.L. Ewing, "Differentiation of Leydig cell precursors *in vitro*: a role for androgen," *Endocrinology*, 127, 1990, pp. 488-490.
- Harris, M., R. Chapin, J. Haskins, J. Allen, B. Collins, B. Davis, A. Lockhart, and M. Mauney, "The effects of perinatal/juvenile pesticide exposure on adult reproductive performance," *The Toxicologist*, 30, pp. 144.
- Hausler, A., L. Schenkel, C. Krahenbuhl, G. Monnet, A. Bhatnagar, *Journal Steroid Biochemistry*, 33, 1989, pp. 125-131.
- Heinrichs, W. L., R.J. Gellert, J.L. Bakke, and N.L. Lawrence, "DDT administered to neonatal rats induces persistent estrus syndrome," *Science*, 173, 1971, pp. 642-643.
- Heywood, R., and P. Wadsworth, "The experimental toxicology of estrogens," *Pharmacol. Ther.*, 8, 1980, pp. 125-142.
- Higashi, Y., K. Yoshida, and H. Oshima, H. "In vitro inhibition by ketaconazole of human testicular steroid oxidoreductases," *Journal of Steroid Biochemistry*, 36, 1990, pp. 667-671.
- Hirsch, K., D. Weaver, L. Black, J. Falcone, and N. MacLusky, "Inhibition of central nervous system aromatase activity: A mechanism for fenarimol-induced infertility in the male rat," *Toxicology and Applied Pharmacology*, 91, 1987, pp. 235-245.
- Horwitz, K. B., M.E. Costlow, and W.L. McGuire, "MCF-7; a human breast cancer cell line with estrogen, androgen, progesterone, and glucocorticoid receptors," *Steroids* 26, 1975, pp. 785-95.
- Iguchi, T., "Cellular effects of early exposure to sex hormones and antihormones," *International Review of Cytology*, 139, 1992. pp. 1-55.
- Ince, B. A., M.M. Montano, and B.S. Katzenellenbogen, "Activation of transcriptionally inactive human estrogen receptors by cyclic adenosine 3',5'-monophosphate and ligands including antiestrogens," *Mol Endocrinol*, 8, 1994, pp. 1397-1406.
- Jain, P. T., and J.T. Pento, "Growth medium for the evaluation of antiestrogenic compounds in MCF-7 cell culture," *Methods & Findings in Experimental & Clinical Pharmacology*, 13, 1991, pp. 595-8.
- Jain P. T., J.T. Pento, and D.C. Graves, "Cell-growth quantitation methods for the evaluation of antiestrogens in human breast cancer cells in culture," *Journal of Pharmacological & Toxicological Methods*, 27, 1992, pp. 203-7.
- Jobling, S., T. Reynolds, R. White, M.G. Parker, J. Sumpter, "A variety of environmentally persistent chemicals, including some phthlate plasticizers, are weakly estrogenic," *Environ Health Perspect.*, 103, 1995, pp. 582-587.
- Johnson, D., H. Kogo, M. Sen, and S. Dey, "Multiple estrogenic action of o,p' DDT: Initiation and maintenance of pregnancy in the rat," 1988.

- Katzenellenbogen, B.S., K.L. Kendra, M.J. Norman, and Y. Berthois, "Proliferation, hormonal responsiveness, and estrogen receptor content of MCF-7 human breast cancer cells grown in the short-term and long-term absence of estrogens," *Cancer Research*, 47, 1987, pp. 4355-60.
- Katzenellenbogen, B.S., M.M. Montano, P. Le Goff, D.J. Schodin, W.L. Kraus, B. Bhardwaj, and N. Fujimoto, "Antiestrogens: Mechanisms and actions in target cells," *J Steroid Biochem Mol Biol*, 53, 1995, pp. 387-393.
- Kitawaki J., T. Kim, H. Kanno, T. Noguchi, T. Yamamoto, and H. Okada, "Growth suppression of MCF-7 human breast cancer cells by aromatase inhibitors: a new system for aromatase inhibitor screening," *Journal of Steroid Biochemistry & Molecular Biology*, 44, 1993, pp. 667-70.
- Klinefelter, G., J. Laskey, J. Ferrell, N. Roberts, J. Suarez, "Chloroethyl-methanesulfonateinduced effects on the epididymis seem unrelated to altered Leydig cell function," *Biol. Reprod.*, 51, 1994, pp. 82-91.
- Klinefelter, G.R., and L.L. Ewing, "Optimizing testosterone production by purified adult rat Leydig cells *in vitro*,"*Iin Vitro Cell. Dev. Biol.*, 24, 1988, pp. 545-549.
- Klinefelter, G.R., and L.L. Ewing, "Maintenance of testosterone production by purified adult rat Leydig cells for 3 days *in vitro*," *In Vitro Cell. Dev. Biol.* 25, 1989, pp. 283-288.
- Klinefelter, G.R., P.F. Hall, and L.L. Ewing, "Effect of luteinizing hormone deprivation in situ on steroidogenesis of rat Leydig cells purified by a multistep procedure," *Biol. Reprod.* 36, 1987, pp. 769-783.
- Klinefelter, G.R., W.R. Kelce, M.P. Hardy, "The isolation and culture of Leydig cells from adult rats," In: Methods in Toxicology, Volume 3, Part A, (Heindel J. and Chapin R., eds.), *Academic Press*, 1993, pp. 166-181.
- Klinefelter, G. R., J.W. Laskey, and N.R. Roberts, "*in vivo/in vitro* effects of ethane dimethanesulphonate on Leydig Cells of adult rats," *Tox. Appl. Pharm.*, 107, 1991, pp. 460-471.
- Klotz D. M., C.G. Castles, S. A. Fuqua, L.L. Spriggs, and S.M. Hill, "Differential expression of wild-type and variant ER mRNAs by stocks of MCF-7 breast cancer cells may account for differences in estrogen responsiveness," *Biochemical & Biophysical Research Communications*, 210, 1995, pp. 609-15.
- Kohno, H., O. Gandidi, S.W. Curtis, and K.S. Korach, "Anti-estrogen activity in the yeast transcription system: Estrogen receptor mediated agonist response," *Steroids*, *1994*, *pp*. 572-578.
- Krall, A., and K.R. Yamamoto, "An FK506-sensitive transporter selectively decreases intracellular levels and potency of steroid hormones," *Journal of Biological Chemistry* 271, 1996, pp. 17152-17156.
- Krishnan A. V., P. Stathis, S.F. Permuth, L. Tokes, and D. Feldman, "Bisphenol-A: an estrogenic substance is released from polycarbonate flasks during autoclaving [see comments]," *Endocrinology*, 132, 1993, pp. 2279-86.
- Kurebayashi, J., R. Horiuchi, T. Nakamura, Y. Iino, T. Ishida, H. Takigawa, and M. Izuo,
 "Effects of estrogen and endocrine therapeutic agents on the estrogen receptor, progesterone receptor and DNA synthesis in MCF-7 human breast cancer cells using the whole cell uptake method, [Japanese]. *Nippon Naibunpi Gakkai Zasshi - Folia Endocrinologica Japonica* 63, 1987, pp. 1351-63.

- Larsson, K., "Features of the neuroendocrine regulation of masculine sexual behavior," *Endocrine Control of Sexual Behavior*, 1979, pp.77-163.
- Laskey, J., and E. Berman, "Steroidogenic assessment using ovary culture in cycling rats: Effects of bis (2-diethylhexyl) phthalate on ovarian steroid production," *Reproductive Toxicology*, 7, 1993, pp. 25-33.
- Laskey, J., E. Berman, and J. Ferrell, "The use of cultured ovarian fragments to assess toxicant alterations in steroidogenesis in Sprague-Dawley rat," *Reproductive Toxicology*, 9, 1995, pp. 131-141.
- Laskey, J. W., and P.V. Phelps, "Effect of cadmium and other metal cations on *in vitro* Leydig cell testosterone production," *Toxicol. Appl. Pharmacol.*, 108, 1991, pp. 296-306.
- Laskey, J. W., G.R. Klinefelter, W.R. Kelce, and L.L. Ewing, "Effects of ethane dimethanesulfonate on adult and immature rabbit Leydig cells: comparison with EDStreated rat Leydig cells," *Biol. Reprod.*,50, 1994, pp. 1151-1160.
- Lasky, J. W. et al., "Effects of ethane dimethanesulfonate (EDS) on adult and immature rabbit Leydig cells: comparison with EDS-treated rat Leydig cells," *Biol. Reprod.* 50, 1994, pp. 1151-1160.
- Laursen, I., P. Briand, and A.E. Lykkesfeldt, "Serum albumin as a modulator on growth of the human breast cancer cell line, MCF-7," *Anticancer Res.*, 10, 1990, pp. 343-351.
- Laws, S., S. Carey, O. Huey, and L.E. Gray, "4-tert-octylphenol: in vitro and *in vivo* assessments of potential estrogenicity in rats," *The Toxicologist*, 30, 1995, pp. 132.
- Leung, P., and D. Armstrong, "Estrogen treatment of immature rats inhibits ovarian androgen production *in vitro*," *Journal Endocrinology*, 104, 1979, pp. 1411-1417.
- Lippman M., G. Bolan, and K. Huff, "The effects of estrogens and antiestrogens on hormoneresponsive human breast cancer in long-term tissue culture," *Cancer Research*, 36, 1976, pp. 4595-601.
- Lykkesfeldt, A. E., and P. Briand, "Indirect mechanism of oestradiol stimulation of cell proliferation of human breast cancer cell lines," *Br J Cancer*, 53, 1986, pp. 29-35.
- MacIndoe, J. H., and G.R. Woods, Steroid-metabolizing enzymes in human breast cancer cells. II. 5 alpha-Reductase, 3 alpha-hydroxysteroid oxidoreductase, and 17 beta-hydroxysteroid oxidoreductase," *Endocrinology*, 108, 1981, pp. 1407-13.
- MacIndoe, J. H., M. Hinkhouse, and G. Woods, "Dehydroepiandrosterone and estrone 17ketosteroid reductases in MCF-7 human breast cancer cells," *Breast Cancer Research & Treatment*, 16, 1990, pp. 261-72.
- Masamura, S., S.J. Santner, D.F. Heitjan, and R.J. Santen, "Estrogen deprivation causes estradiol hypersensitivity in human breast cancer cells," *Journal of Clinical Endocrinology & Metabolism*, 80, 1995, pp. 2918-25.
- Mayr, U., A. Butsch, and S. Schneider, "Validation of two *in vitro* test systems for estrogenic activities with zearalenone, phytoestrogens and cereal extracts," *Toxicology*, 74, 1992, pp. 135-49.
- McDonnell, D. P., J.W. Pike, D.J. Drutz, T.R. Butt, and B.W. O'Malley, "Reconstitution of the vitamin D-responsive osteocalcin transcription unit in *Saccharomyces cerevisiae*," *Mol Cell Biol.*, 9, 1989, pp. 3517-3523.
- Medlock, K., W. Branham, and D. Sheehan, "The effects of phytoestrogens on neonatal rat growth and development," *Proceedings of the Society for Experimental Biology and Medicine*, 208, 1995, pp. 307-313.

- Mellanen, P., T. Petanen, J. Lehtimaki, S. Makela, G. Bylund, B. Holmbom, E. Mannila, A. Oikari, and R. Santti, "Wood-derived estrogens: Studies *in vitro* with breast cancer cell lines and *in vivo* in trout," *Toxicol Appl Pharmacol*, 136, 1996, pp. 381-388.
- Metzger, D., J.H. White, and P. Chambon, "The human oestrogen receptor functions in yeast," *Nature*, 334, 1988, pp. 31-36.
- Milen, C., R. Hasmall, A. Russell, S. Watson, Z. Vaughan, and M. Middleton, "Reduced estradiol production by a substituted triazole results in delayed ovulation in rats," *Toxicology and Applied Pharmacology*, 90, 1987, pp. 427-435.
- Miyazaki, K., J. Dambrosia, and J. Kebabian, "Dopaminergic modulation of DES-induced proliferation of the anterior pituitary of the Fisher 344 rat," *Neuroendocrinology*, 41, 1985, pp. 405-408.
- Moore, M., M. Mustain, K. Daniel, I. Chen, S. Safe, and T. Zacharewski, "Antiestrogenic activity of hydroxylated polychlorinated biphenyl congeners identified in human serum," *Toxicology and Applied Pharmacology, 1996*, In Press.
- Morali, G., and C. Beyer, "Neuroendocrine control of mammalian estrous behavior," *Endocrine Control of Sexual Behavior, 1979, pp. 33-75.*
- Nawata, H., M.T. Chong, D. Bronzert, D., and M.E. Lippman, "Estradiol-independent growth of a subline of MCF-7 human breast cancer cells in culture," *Journal of Biological Chemistry*, 256, 1981, pp. 6895-902.
- Nimrod, A. C., and W.H. Benson, "Xenobiotic-induced alterations in estrogen receptor function and characterization," *Toxicology and Applied Pharmacology*, 147, 1998, pp. 381-390.
- Osborne, C. K., D.H. Boldt, P. Estrada, "Human breast cancer cell cycle synchronization by estrogens and antiestrogens in culture," *Cancer Research*, 44(4), 1984, pp. 1433-9.
- Pepper, G., S. Brenner, and J. Gabrilove, "Ketoconazole use in the treatment of ovarian hyperandrogenism," *Fertility and Sterility* 54, 1990, pp. 438-444.
- Perez, P., R. Pulgar, F. Olea-Serrano, M. Villalobos, A. Rivas, M. Metzler, V. Pedraza, and N. Olea, "The estrogenicity of bisphenol-A related diphenyl alkanes with various substituents at the central carbon and the hydroxy groups," In press, *EHP*, 1998, March issue.
- Piasek, M., and J. Laskey, "Acute cadmium exposure and ovarian steroidogenesis in cycling and pregnant rats," *Reproductive Toxicology*, 8, 1994, pp. 495-507.
- Purvis, I. J., D. Chotai, C.W. Dykes, D.B. Lubahn, F.S. French, E.M. Wilson, and A.N. Hobden, "An androgen-inducible expression system for Saccharomyces cerevisiae," *Gene*, 106, 1991, pp. 35-42.
- Robaire, B., L.L. Ewing, D.C. Irby, and C. Desjardins, "Interactions of testosterone and estradiol-17J on the reproductive tract of the male rat," *Biology of Reproduction*, 21, 1979, pp. 455-463.
- Ruh, M. F., T. Zacharewski, K. Connor, J. Howell, I. Chen, and S. Safe, "Naringenin: A weakly estrogenic bioflavonoid that exhibits antiestrogenic activity," *Biochem Pharmacol*, 50, 1995, pp. 1485-1493.
- Schardein, J.L. "Hormones and hormonal antagonists," *Chemically induced birth defects, 1993, pp.* 271-339.
- Schena, M., and K.R. Yamamoto, "Mammalian glucocorticoid receptor derivatives enhance transcription in yeast," *Science*, 241, 1988, pp. 965-967.
- Schurmeyer, T., and E. Nieschlag, "Effect of ketoconazole and other imidazole fungicides on testosterone biosynthesis," *Acta Endocrinologica*, 105, 1984, pp. 275-280.

- Shafie, S., and S.C. Brooks, "Characteristics of the dextran-coated charcoal assay for estradiol receptor in breast cancer preparations," *Journal of Laboratory & Clinical Medicine*, 94, 1979, pp. 784-98.
- Sheehan, D., "The case for expanded phytoestrogen research," *Proceedings of the Society for Experimental Biology and Medicine*, 208, 1995, pp. 3-5.
- Sonnenschein, C., J. Szelei, T.L. Nye, and A.M. Soto, "Control of cell proliferation of human breast MCF7 cells; serum and estrogen resistant variants," *Oncology Research*, 6, 1994, pp. 373-81.
- Sonnenschein, C., J.T. Papendorp, and A.M. Soto, "Estrogenic effect of Tamoxifen and its derivatives on the proliferation of MCF7 human breast tumor cells," *Life Sciences* 37, 1985, pp. 387-394.
- Sonnenschein, C., A.M. Soto, and C.L. Michaelson, "Human serum albumin shares the properties of estrocolyone-I, the inhibitor of the proliferation of estrogen-target cells," *Journal of Steroid Biochemistry and Molecular Biology*, 59, 1996, pp. 147-154.
- Soto, A. M., and C. Sonnenschein, "Mechanism of estrogen action on cellular proliferation: evidence for indirect and negative control on cloned breast tumor cells," *Biochemical & Biophysical Research Communications*, 122, 1984, pp. 1097-103.
- Soto, A. M., H. Justicia, J.W. Wray, and C. Sonnenschein, "p-Nonyl-phenol: an estrogenic xenobiotic released from "modified" polystyrene," *Environmental Health Perspectives*, 92, 1991, pp. 167-73.
- Soto, A. M., R.M. Silvia, and C. Sonnenschein, "A plasma-borne specific inhibitor of the proliferation of human estrogen-sensitive breast tumor cells (estrolycone-I)," *Journal of Steroid Biochemistry & Molecular Biology*, 43, 1992, pp. 703-12.
- Soto, A. M., C. Sonnenschein, K.L. Chung, M.F. Fernandez, N. Olea, and F.O. Serrano, "The E-SCREEN assay as a tool to identify estrogens: an update on estrogenic environmental pollutants," *Environmental Health Perspectives*, 103 7, 1995, pp. 113-22.
- Soto, A. M., and C. Sonnenschein, "Mechanism of estrogen action on cellular proliferation: Evidence for indirect and negative control on cloned breast tumor cells," *Biochem. Biophys. Res. Commun.*, 122, 1984, pp. 1097-1103.
- Soto, A. M., and C. Sonnenschein, C., "The role of estrogens on the proliferation of human breast tumor cells (MCF-7)," *J. Steroid Biochem.*, 37, 1985, pp. 87-94.
- Soto, A. M., M.F. Fernandez, M.F. Luizzi, A.S. Oles Karasko, and C. Sonnenschein, "Developing a marker of exposure to xenoestrogen mixtures in human serum," *Environmental Health Perspectives*, 105, 1997, pp. 647-654.
- Soto, A. M., T.M. Lin, H. Justicia, R.M. Silvia, and C. Sonnenschein, "An "in culture" bioassay to assess the estrogenicity of xenobiotics," *Chemically induced alterations in sexual development: The wildlife/human connection*, 1992, pp. 295-309.
- Soto, A. M., J. Wray, H. Justicia, and C. Sonnenschein, "p-Nonyl phenol: an estrogenic xenobiotic released from modified polystyrene," *Environ. Health Perspect.*, 92, 1991, pp. 167-173.
- Soule, H. D., J. Vazquez, A. Long, S. Albert, and M. Brennan, "A human cell line from a pleural effusion derived from a breast carcinoma," *Journal of the National Cancer Institute*, 51, 1973, pp. 1409-16.
- Spencer, J., T. Torrado, R. Sanchez, E. Vaughn, and J. Imperato-McGinley, "Effects of flutamide and finasteride on rat testicular descent," *Endocrinology*, 129, 1991, pp. 741-748.
- Steinberger, A., and G. Klinefelter, "Sensitivity of Sertoli and Leydig cells to xenobiotics in *in vitro* models," *Reprod. Toxicol.*, 7, 1993, pp. 23-37.

- Takenawa, T., H. Ueda, J.C. Millan, and D. Brandes, "Retinoic acid-binding protein in a human cell (MCF-7) from breast carcinoma," *Laboratory Investigation*, 42, 1980, pp. 490-4.
- Taton, M., P. Ullmann, P. Benveniste, and A. Rahier, *Pesticide Biochemistry and Physiology*, 30, 1988, pp. 178-189.
- Tayeb, E., Y. Salih, A. Pillay, "Effects of aminoglutethimide on ovarian histology in the rat," *Acta anat.*, 122, 1985, pp. 212-215.
- Taylor, C. .M., B. Blanchard, and D.T. Zava, "A simple method to determine whole cell uptake of radiolabelled oestrogen and progesterone and their subcellular localization in breast cancer cell lines in monolayer culture," *Journal of Steroid Biochemistry*, 20, 1984, pp. 1083-8.
- Toppari, et al., "Male reproductive health and environmental xenoestrogens," *Environmental Health Perspectives*, 104, 1996, pp. 741-803.
- Tsai, M. J., and B.W. O'Malley, "Molecular mechanisms of action of steroid/thyroid receptor superfamily members," [Review], *Annual Review of Biochemistry*, 63, 1994, pp. 451-86.
- van Ravenzwaay, B. "Discussion of prenatal and reproduction toxicity of Reg. No. 83-258 (Vinclozolin)," Data Submission to USEPA from BASF Corporation, 1992, MRID 425813-02.
- Vickers, P. J., R.B. Dickson, R. Shoemaker, and K.H. Cowan, "A multidrug-resistant MCF-7 human breast cancer cell line which exhibits cross-resistance to antiestrogens and hormone-independent tumor growth *in vivo*," *Molecular Endocrinology*, 2, 1988, pp. 886-92.
- Villalobos, M., N. Olea, J.A. Brotons, M.F. Olea-Serrano, J.M. Ruiz de Almodovar, and V. Pedraza, "The E-screen assay: a comparison of different MCF7 cell stocks," *Environ Health Perspect*, 103, 1995, pp. 844-50.
- Vom Saal, F. "Effects of exposure to estrogenic chemicals during fetal life on the reproductive system of male mice," *International School of Ethology*, 11, 1995.
- Vom Saal, F., M. Montano, M. Wang, "Sexual differentiation in mammals. In: Advances in modern environmental toxicology vol XXI," *Chemically-induced alterations in sexual* and functional development: The wildlife/human connection., 1992, pp. 203-230.
- Wakeling, A.E., and J. Bowler, "Novel antioestrogens without partial agonist activity," *Journal of Steroid Biochemistry*, 31, 1988, pp. 645-53.
- Wakeling, A. E., and J. Bowler, "ICI 182,780, a new antioestrogen with clinical potential," [Review], *Journal of Steroid Biochemistry & Molecular Biology*, 43, 1992, pp. 173-7.
- Wakeling, A.E., E. Newboult, and S.W. Peters, "Effects of antioestrogens on the proliferation of MCF-7 human breast cancer cells," *Journal of Molecular Endocrinology* 2, 1989, pp. 225-34.
- Waller, C. L., D.L. Minor, and J.D. McKinney, "Using three-dimensional quantitative structureactivity relationships to examine estrogen receptor binding affinities of polychlorinated hydroxybiphenyls," *Environ Health Perspect*, 103, 1995, pp. 702-707.
- Waller, C. L., T.I. Oprea, K. Chae, H. Park, K.S. Korach, S.C. Laws, T.E. Wiese, W.R. Kelce, and L.E. Gray, "Ligand-Based Identification of Environmental Estrogens," *Chemical Research in Toxicology*, 1996b, In Press.
- Welshons, W.V., and V.C. Jordan, "Adaptation of estrogen-dependent MCF-7 cells to low estrogen (phenol red-free) culture," *European Journal of Cancer & Clinical Oncology*, 23, 1987, pp. 1935-9.

- Welshons, W.V., L.H. Grady, K.S. Engler, and B.M. Judy, "Control of proliferation of MCF-7 breast cancer cells in a commercial preparation of charcoal-stripped adult bovine serum," *Breast Cancer Research & Treatment*, 23, 1992, pp. 97-104.
- Welshons, W.V., G.E. Rottinghaus, D.J. Nonneman, M. Dolan-Timpe, and P.F. Ross, "A sensitive bioassay for detection of dietary estrogens in animal feeds," *Journal of Veterinary Diagnostic Investigation*, 2, 1990, pp. 268-73.
- White, R., S. Jobling, S.A. Hoare, J.P. Sumpter, M.G. Parker, "Environmentally persistent alkylphenolic compounds," *Endocrinology*, 135, 1994, pp. 175-182.
- Wiese, T.E., L.G. Kral, K.E. Dennis, W.B. Butler, and S.C. Brooks, "Optimization of estrogen growth response in MCF-7 cells *in vitro*," *Cellular & Developmental Biology*, 28A, 1992, pp. 595-602.
- Wiese, T.E., L.A. Polin, E. Palomino, J.P. Horwitz, S.C. Brooks, S. C. "Induction of the Estrogen Specific Mitogenic Response in MCF-7 Cells by Selected Analogues of Estradiol-17J: A 3D QSAR Study," 25th National Medicinal Chemistry Symposium, Ann Arbor, MI, 1996, Abstract 24.
- William, J., J. Odum, R.W. Lewis, and A.M. Brady, "The Oral Administration of Polysorbate 80 to the immature female rat does not increase uterine weight," *Toxicology Letters*, 91, 1997, pp. 19-24.
- Wilson, E.M., and F.S. French, "Binding properties of androgen receptors. Evidence for identical receptors in rat testis, epididymis and prostate," *J Biol Chem*, 25, 1976, pp. 5620-5629.
- Wong, C-I, W.R. Kelce, M. Sar, and E.M. Wilson, "Androgen Receptor Antagonist versus Agonist Activities of the Fungicide Vinclozolin Relative to Hydroxyflutamide," *Journal* of Biological Chemistry, 270, 1995, pp. 19998-20003.
- Workshop: *Environmental Endocrine Disrupting Chemicals*: Erice, Sicily, Nov 5-10, 1995. Abstract.
- Yarbrough, W.G., V.E. Quarmby, J.A. Simental, D.J. Joseph, M. Sar, D.B. Lubahn, K.L. Olsen, F.S. French, and E.M.Wilson, "A single base mutation in the androgen receptor gene causes androgen insensitivity in the testicular feminized rat," *J Biol Chem*, 265, 1990, pp. 8893-8900.
- Young, W., and W. Fish, "The ovarian hormones and spontaneous running activity in the female rat," *Endocrinology*, 36, 1945, pp. 181-189.
- Zacharewski, T., "A review of *in vitro* bioassays for assessing estrogenic substances," *Environmental Science and Technology*, 1996, In Press.
- Zacharewski, T., K. Berhane, B. Gillesby, and B.K. Burnison, "Evidence for the presence of estrogen receptor and Ah receptor ligands in pulp and paper mill black liquor," *Environmental Science and Technology*, 29, 1995, pp. 2140-2146.

Fish Gonadal Recrudescence Assay_ II.

- Arcand-Hoy, L.D., and W.H. Benson. "Fish reproduction: An ecologically relevant indicator of endocrine disruption," *Environ. Toxicol. Chem.*, 17(1), 1998, pp. 57.
- Gustafsson, J.A., "Characteristics and function of a novel estrogen receptor β," Steroid Receptor Superfaniily Symposium, University of Wisconsin, Madison, WI September 27-29, 1996.

Nimrod, A.C., and W.H. Benson. "Estrogenic responses to xenobiotics in channel catfish (Ictalurus punctatus)," *Marine Environ. Res.*, 42(1-4), 1996, pp. 155-160.

- Nimrod, A.C. and W.H. Benson, "Reproduction and development of Japanese medaka following early life stage exposure to xenoestrogens," *Aquatic Toxicol*, 1997, In press.
- Petit, F., Y. Valotaire, and F. Pakdel, "Differential functional activities of rainbow trout and human estrogen receptors expressed in the yeast," *Saccharomyces cerevisiae. Eur. J. Biochem.*, 223, 1995, pp. 584-592.

Alternative Mammalian Reproduction Test III.

- Gray, L. E. Jr., J. Ostby, R. Simong, J. Ferrell, G. Rehnberg, R. Linder, R. Cooper, J. Goldman, and J. Laskey, "The development of a protocol to assess reproductive effects of toxicants in the rat," *Reproductive Toxicology*, 2, 1988, pp. 281-287.
- Zenick, H., E.D. Clegg, S.D. Perreault, G.R. Klinefelter, and L.E. Gray, "Assessment of Male Reproductive Toxicity," *Principles and Methods of Toxicology*, 3, 1994, pp. 937-988.

Avian Reproduction (EPA OPPTS 850.2300; OECD 206) IV.

- Dvorak, J., J.L. Halvorsen, P. Gulick, K.A. Rauen, U.K. Abbott, B.J. Kelly, and F.T. Schultz, "DNA cloning of a Z- and W- linked gene in gallinaceous birds," *J. Heredity*, 83, 1992, pp. 22-55.
- Halvorsen, J.L., "Avian sex identification by recombinant DNA technology," *Proceedings of the Annual Meeting of the Association of Avian Veterinarians*, Phoenix, Arizona, 1990, pp. 84-90.
- Ottinger, M.A., and M. Bakst, "Peripheral androgen concentrations and testicular morphology in embryonic and young Japanese quail," *Gen. and Compare. Endocrinol*, 43, 1981, pp. 170-177.
- Ottinger, M.A., and H.J. Brinkley, "Testosterone and sex-related behavior and morphology: Relationship during maturation in the adult Japanese quail," *Hormones and Behavior*, 11, 1978, pp. 175-182.
- Panzica, G.C., N. Aste, C. Viglietti-Panzica, and M.A. Ottinger, "Structural sex differences in the brain: Influence of gonadal steroids and behavioral correlates," *Journal of Endocrinological Investigation*, 18, 1997, pp. 232-252.
- Sharp, P.J., "A conparison of variations of plasma luteinizing hormone concentrations in male and female domestic chickens (*Gallus domesticus*) from hatch to sexual maturity," J. *Endocrinol.*, 67, 1975, pp. 211-223.
- Somers, J.D., E.T. Moran Jr., B.S. and Reinhart, "Effect of External Application of Pesticides to the Fertile Egg on Hatching Success and Early Chick Performance 3. Consequences of Combining 2,4-D with Picloram and Extremes in Contamination," *Bull. Environ. Contam. Toxicol.*, 11,6, 1974, pp. 511-516.
- Tori, G.M., and L.P. Mayer, "Effects of Polychlorinated Biphenyls on the Metabolic Rates of Mourning Doves Exposed to Low Ambient Temperatures," *Bull. Environ. Contam. Toxicol.*, 27, 1981, pp. 678-682. Nest Attentiveness/Incubation Behavior Test References to be Used for Protocol Development V.

and Standardization

Fox, G.A., A.P. Gilman, D. B. Peakall, and F.W. Anderka, "Behavioural Abnormalities of Nesting Lake Ontario Herring Gulls," J. Wildl. Manage., 42, 1978, pp. 477-483.

McArthur, M.L.B., G.A. Fox, D.A. Peakall, and B.J.R. Philogene, B.J.R., "Ecological Significance Of Behavioral and Hormonal Abnormalities In Breeding Ring Doves Fed An Organochlorine Chemical Mixture," *Arch. Environ. Contam. Toxicol.*, 12, 1983, pp. 343-353.

Visual Cliff Test References to be Used for Protocol Development and Standardization

- Baxter, W.L., R.L. Linder, and R.B. Dahlgren, Dieldrin Effects in Two Generations of Penned Hen Pheasants. J. *Wildl. Mgmt.*, 33,1, 1969, pp. 96-102.
- Dahlgren, R B. and R.L. Linder, Effects Of Polychlorinated Biphenyls On Pheasant Reproduction, Behavior and Survival. *J Wildl Mgmt.*, 35, 2, 1971, pp. 315-319.
- Emlen, Jr., J.T. Determinants of Cliff Edge and Escape Responses In Herring Gull Chicks in Nature. *Behaviour*, 22, 1963, pp. 1-15.
- Fleming, W.J., G.H. Heinz, and C.A. Schuler, C. A. "Lethal and Behavioral Effects of Chlordimeform in Bobwhite,". *Toxicology*, 36, 1985, pp. 37-47.

Fox, G.A. "Eggshell Quality: It's Ecological and Physiological Significance In a DDE-Contaminanted Common Tern Colony," *Wilson Bull*, 88, 3, 1976, pp. 459-477.

Cold Stress References to be Used for Protocol Development and Standardization VII.

Fleming, W.J., G.H. Heinz, J.C. Franson, and B.A. Rattner, "Toxicity of Abate 4E (Temephos) in Mallard Ducklings and the Influence of Cold," *Environmental Toxicology and Chemistry*, 4, 1985, pp. 193-199.

Maguire, C.C. and B.A. Williams, "Response of Thermal Stressed Bobwhite to Organophosphorous Exposure," *Environmental Pollution*, 47, 1987, pp. 25-39.

- Martin, P.A. and K.R. Solomon, "Acute Carbofuran Exposure and Cold Stress: Interactive effects in Mallard Ducklings," *Pesticide Biochemistry and Physiology*, 40, 1991, pp. 117-127.
- Rattner, B. A., L. Sileo, and C.G. Scanes, "Hormonal Responses and Tolerance to Cold of Female Quail following Parathion Ingestion," *Pesticide Biochemistry and Physiology*, 18, 1982, pp. 132-138.

Fish Life Cycle Test VIII.

Arcand-Hoy, L.D., and W.H. Benson, "Fish reproduction: An ecologically

relevant indicator of endocrine disruption. Environ. Toxicol. Chem., 17, 1, 1998, pp. 49-57.

- Benson, W.H., G. van der Kraak, C. Tyler, K.E. Brugger, G. Daston, M. Fry, S. Gimeno, F. Hunger, M. Kolossa, R. Länge, and P. Matthiessen, P. "Strategies and approaches to in vivo screening and testing in identifying the hazards of endocrine modulating chemicals to wildlife," *SETAC- Europe/OECD/EC Expert Workshop on Endocrine Modulators and Wildlife: Assessment and Testing*, 1997, pp. 59-78.
- Cyr, D.G. and J.G. Eales, "Interrealtionships between thyroidal and reproductive endocrine systems in fish," *Rev. Fish Biol.*, 6, 1996, pp. 165-200.
- Ghosh, S. and P. Thomas, "Antagonistic effects of xenobiotics on steroid-induced final maturation of Atlantic croaker oocytes in vitro," *Mar. Environm. Res.*, 39, 1995, pp. 159-163.
- Nimrod, A.C. and W.H. Benson, "Assessment of estrogenic activity in fish," *Chemically-Induced Alterations in the Functional Development and Reproduction of Fishes*, 1997, pp. 87-100.

VI.

Tyler, C.R., B. van der Eerden, S. Jobling, G. H. Panter, and J.P. Sumpter, "Measurement of vitellogenin, a biomarker for exposrue to estrogenic chemicals, in a wide variety of cyprinid fish," J. Comp. Physiol., B, 166, 1996, pp. 418-426.

Methods to Select the Target Doses for T2T IX.

- Flaws, J.A., R.J. Sommer, E. K. Silbergeld, R.E. Peterson, and A.N. Hirshfield, "In Utero and Lactational Exposure to 2,3,7,8 - Tetrachlorodibenzo-*p*-dioxin (TCDD) Induces Gnital Dysmorphogenesis in the Female Rat," *Toxicol. Appl. Pharmacol.* 147, 1997, pp. 351-362.
- Gray, L.E. Jr., C. Wolf, P. Mann, and J.S. Ostby, 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, 1997, pp. 237-244.
 Low Dose Consideration for T2T
 - **X.**
- Nagel, S. C., F.S. vom Saal, K.A. Thayer, M.G. Dhar, M. Boechler, and W.V. Welshons, "Relative Binding Affinity-Serum Modified Access (RBA-SMA) Assay Predicts the Relative *in Vivo* Bioactivity of the Xenoestrogens Bisphenol A and Octylphenol." *Environmental Health Perspectives*, 105, 1, 1997, pp. 70-76.
- Reel, J.R., R.W. Tyl, A.D. Lawton, and J.C. Lamb, "Bisphenol A: reproduction and fertility assessment in CD-1 mice when administered via subcutaneous silastic implants," NTIS PB84-155308, 1984.
- Reel, J.R., J.D. George, A.D. Lawton, C.B. Myers, and J.C. Lamb, "Bisphenol A: reproduction and fertility assessment in CD-1 mice when administered in the feed," NTIS PB86-103207, 1985.
- vom Saal, F. S., P.S. Cooke, D.L. Buchanan, P. Palanza, K.A. Thayer, S.C. Nagel, S. Parmigiani, and W.V. Welshons, "A physiologically based approach to the study of bisphenol A and other estrogenic chemicals on the size of the reproductive organs, daily sperm production and behavior," *Toxicol. Indus. Health*, 14,1-2, 1998, pp. 239-260.

Documents Distributed to Screening and Testing Work Group XI. Members

- During the course of their deliberations to evaluate all potentially relevant screening and test methods, the STWG utilized an extensive set of resource materials including peerreviewed publications, workshop reports, and independent assessments by various international scientific groups and regulatory bodies. The following documents were of particular importance:
- 1. Endocrine Screening Methods Workshop: Meeting Report, July, 1996. Duke University Meeting.
- 2. Workshop on Screening Methods for Endocrine Disruptors in Wildlife: Draft Workshop Report, March, 1997. Kansas City Meeting.

- 3. OECD Appraisal of Test Methods for Sex-Hormone Disrupting Chemicals, 1st Draft, October, 1996. Prepared by the MRC Institute for Environmental and Health.
- 4. Validation and Regulatory Acceptance of Toxicological Test Methods. A Report of the ad hoc Interagency Coordinating Committee on the Validation of Alternative Methods. NIEHS, Draft Version, October 16, 1995.

In addition, the following documents were disseminated to the STWG members:

- Ankley, G.T., R.D. Johnson, G. Toth, L.C. Folmar, N.E. Detenbeck, and S.P. Bradbury,
 "Development of a Research Strategy for Assessing the Ecological Risk of Endocrine Disrupters," *Rev. Toxicol.*, In Press.
- Ashby, J., J. Oden, and J.R. Foster, "Activity of Raloxifene in Immature and Ovariectomized Rat Uterotrophic Assays," Zenaca Central Toxicological Laboratory, Alderly Park, Macclesfield, Cheshire, UK, 1997.
- Ashby, J., J. Odum, H. Tinwell, and P.A. Lefevre, "Assessing the Risks of Adverse Endocrinemediated Effects: Where to From Here?," (submitted to *Reg. Tox Pharmacol.* as meeting overview), 1997.
- Cook, Jon. C., A.M. Kaplan, L.G. Davis, and J.C. O'Connor, "Development of a Tier 1 Screening Battery for Detecting Endocrine Active Compounds (EACs)."
- Davis, Paul J., and Faith B. Davis, "Nongenomic Actions of Thyroid Hormone," *Thyroid*, 6, 5, 1996, 497.
- DeGroot, M.D., Leslie J "Novel Actions of Thyroid Hormone," *Thyroid*, 6, 5, 1996, "NTP Workshop on Validation and Regulatory Acceptance of Alternative Toxicological Test Methods," Final Report, 1995.
- Fingerman, Milton, "Crustacean Endocrinology: A Retrospective, Prospective, and Introspective Analysis," *Physiological Zoology.*, 70, 3, 1997, pp. 257-269.
- Hajek, R.A., A.D. Robertson, D.A. Johnston, N.T. Van, R.K.Tcholakian, L.A. Wagner, C.J. Conti, M.L. Meistrich, N. Contreras, C.L. Edwards, and L.A. Jones, "During Development, 17I-Estradiol Is a Potent Estrogen and Carcinogen," *Environmental Health Perspectives*, 105, 2, 1997.
- Committee on Environment and Natural Resources (CENR) of the National Science and Technology Council "The Health and Ecological Effects of Endocrine Disrupting Chemicals: A Framework for Planning," 1996.
- National Research Council, Commission on Life Sciences Hormone-Related Toxicants in the Environment; Proposal No. 95-CLS-056-01 of the National Academy of Science, 1994

Horwitz, A. F. "Integrins and Health," Scientific American, 1997, pp. 68-75.

- Katzenellenbogen, B. S., M.M. Montano, P. le Goff, D.J. Schodin, W.L. Kraus, B. Bhardway, and N. Fujimoto, Antiestrogens: Mechanisms and Actions in Target Cells. J. Steroid Biochem. Molec. Biol., 53, 1-6, 1995, pp. 387-393.
- Kavlock, et al. "Research Needs for the Risk Assessment of Health and Environmental Effects of Endocrine Disrupters: A Report from the U.S. EPA-Sponsored Workshop," *Environmental Health Perspectives*, 104, 4, 1996.
- Kohn, M.C., C.H. Sewall, G.W. Lucier, and C.J. Portier, "A Mechanistic Model of Effects of Dioxin on Thyroid Hormones in the Rat," *Toxicology and Applied Pharmacology*, 165, 1996, pp. 29-48.

- Leonard, J.L., and A.P. Farwell, "Thyroid Hormone-Regulated Actin Polymerization in Brain," *Thyroid*, 7, 1, 1997, pp. 147-151.
- Nagel, S. C., F.S. vom Saal, K.A. Thayer, M.G. Dhar, M. Boechler, and W.V. Welshons, "Relative Binding Affinity-Serum Modified Access (RBA-SMA) Assay Predicts the Relative *in Vivo* Bioactivity of the Xenoestrogens Bisphenol A and Octylphenol," *Environmental Health Perspectives*, 105, 1, 1997, pp. 70-76.
- Nagel, S. C., F.S. vom Saal, and W.V. Welshons, "The Effective Free Fraction of Estradiol and Xenoestrogens in Human Serum Measured By the Whole Cell Uptake Assays: Physiology of Delivery Modifies Estrogenic Activity," *Proc. Soc. Exp. Bio. Med.*, In Press.
- O'Connor, J. C., J.C. Cook, S.C. Craven, C.S.Van Pelt, and J.D. Obourn, An *in Vivo* Battery for Identifying Endocrine Modulators that are Estrogenic or Dopamine Regulators. *Fundamental and Applied Toxicology*. 3, 1996, pp. 182-195.
- Odum, J., P.A. Lefevre, S. Tittensor, D. Paton, E.J. Routledge, N.A. Beresford, J.P. Sumpter, J. P. and J. Ashby, "The Rodent Uterotrophic Assay: Critical Protocol Features, Studies With Nonylphenols, Comparison With a Yeast Estrogenicity Assay," In Press, *Reg. Tox. Pharmacol.*
- Rudel, R. "Predicting Health Effects of Exposure to Compounds With Estrogenic Activity. Silent Spring Institute," Newton, MA. *Environmental Health Perspectives*, 105, 3, 1997.
- Special Report on Environmental Endocrine Disruption: An Effects Assessment and Analysis Document (Draft Version); EPA Risk Forum White Paper, November 28, 1996.
- Szelei, J., J. Jimenez, A. M. Soto, M.F. Luizzi, and C. Sonnenschein, C. "Androgen-Induced Inhibition of Proliferation in Human Breast Cancer MCF7 Cells Transfected with Androgen Receptor," *Endocrinology*, 138, 4, 1997, pp. 1406-1412.
- Tong, W., L. Xing, W.J. Welsh, and D.M. Sheehan, In Press. "QSAR Models for Binding of Estrogenic Compounds to Estrogen Receptor α and β Subtypes," R.O.W. Sciences, Jefferson, Arkansas.
- Tong, W., R. Perkins, R. Strelitz, E.R. Collantes, S. Keenan, W.J. Welsh, W.S. Branham, and D. M. Sheehan, In Press. "Quantitative Structure-Activity Relationships (QSARs) for Estrogen Binding to the Estrogen Receptor: Predictions Across Species," R.O.W. Sciences, Jefferson, Arkansas.
- Validation and Regulatory Acceptance of Toxicological Test Methods: A Report of the Ad Hoc Interagency Coordinating Committee on the Validation of Alternative Test Methods. NIEHS. Final Report, March, 1997.
- vom Saal, F. S., B.G. Timms, M.M. Montano, P. Palanza, K.A. Thayer, S.C. Nagel, M.D. Dhar, V. K. Ganjam, S. Parmigiani, and W.V. Welshons, "Prostate Enlargement in Mice Due to Fetal Exposure to Low Doses of Estradiol rr Diethystilbestrol and Opposite Effects at High Doses," *Proc. Natl. Acad. Sci.*, 94, 1997, pp. 2056-2061.
- vom Saal, F. S., P.S. Cooke, D.L. Buchanan, P. Palanza, K.A. Thayer, S.C. Nagel, S. Parmigiani, and W.V. Welshons, "A Physiologically Based Approach to the Study of Bisphenol A and Other Estrogenic Chemicals on the Size of Reproductive Organs, Daily Sperm Production and Behavior," *Journal of Toxicology and Industrial Health*, 1997.