Selected Publications

- Prasch, A.L., Andreasen, E.A., Peterson, R.E., and Heideman, W.: Interactions between 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and hypoxia signaling pathways in zebrafish: Hypoxia decreases responses to TCDD in zebrafish embryos. Toxicol. Sci. 78: 68-77, 2004.

- Lin, T.-M., Rasmussen, N., Moore, R.W., Albrecht, R.M., and Peterson, R.E.: 2,3,7,8-Tetrachlorodibenzo-p-dioxin inhibits prostatic epithelial bud formation by acting directly on the urogenital sinus. J. Urol. 172: 365-368, 2004.

- Ko, K., Moore, R.W., and Peterson, R.E.: Aryl hydrocarbon receptors in urogenital sinus mesenchyme mediate the inhibition of prostatic epithelial bud formation by 2,3,7,8-tetrachlorodibenzo-p-dioxin. Toxicol. Appl. Pharmacol. 196: 149-155, 2004.

- Bello, S.M., Heideman, W., and Peterson, R.E.: 2,3,7,8-Tetrachlorodibenzo-p-dioxin inhibits regression of the common cardinal vein in developing zebrafish. Toxicol. Sci. 78: 258-266, 2004.

- Ko, K., Theobald, H.M., Moore, R.W., and Peterson, R.E.: Evidence that inhibited prostatic epithelial bud formation in 2,3,7,8-tetrachlorodibenzo-p-dioxin-exposed C57BL/6J fetal mice is not due to interruption of androgen signaling in the urogenital sinus. Toxicol. Sci. 79: 360-369, 2004.

- Hill, A.J., Bello, S.M., Prasch, A.L., Peterson, R.E. and Heideman, W.: Water permeability and TCDD-induced edema in zebrafish early-life stages. Toxicol. Sci. 78: 78-87, 2004.

- Simanainen, U., Haavisto, T., Tuomisto, J., Paranko, J., Toppari, J., Tuomisto, J., Peterson, R.E., and Viluksela, M.: Pattern of male reproduction system effects after *in utero* and lactational 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) exposure in three differentially TCDD sensitive rat lines. Toxicol Sci. 80: 101-108, 2004.

- Ito, T., Tsukumo, S., Suzuki, N., Motohashi, H., Yamamoto, M., Fuji-Kuriyama, Y., Mimura, J., Lin, T.M., Peterson, R..E., Tohyama, C., and Nohara, K.: A constitutively active aryl hydrocarbon receptor induces growth inhibition of Jurkat T cells through changes in the expression of genes related to apoptosis and cell cycle arrest. J. Biol. Chem. 279: 25204-25210, 2004.

- Prasch, L., Heideman, W., and Peterson, R.E.: ARNT2 is not required for TCDD developmental toxicity in zebrafish. Toxicol. Sci. 82: 250-258, 2004.

- Carney, S.A., Peterson, R.E., and Heideman, W.: 2,3,7,8-Tetrachlorodibenzo-p-dioxin activation of the aryl hydrocarbon/aryl hydrocarbon receptor nuclear translocator pathway causes developmental toxicity through a CYP1A-independent mechanism in zebrafish. Mol. Pharmacol. 66: 512-521, 2004.

- Antkiewicz, D.S., Burns, G.C., Carney, S.A., Peterson, R.E., and Heideman, W.: Heart malformation is an early response to TCDD in embryonic zebrafish. Toxicol. Sci. 84: 1-10, 2005.

- Hill, A.J., Teraoka, H., Heideman, W. and Peterson, R.E.: Zebrafish as a model vertebrate for investigating chemical toxicity. Toxicol.Sci. 86: 6-19, 2005.

- Mukai, M., Dong, Q., Hardy, M.P., Kiyokawa, H., Peterson, R.E., and Cooke, P.S.: Altered prostatic epithelial proliferation, apoptosis, prostatic development and serum testosterone in mice lacking cyclin-dependent kinase inhibitors. Biol. Repro. 73, 951-958, 2005.

- Heideman, W., Antkiewicz, D.S., Carney, S.A., and Peterson, R.E.: Zebrafish and cardiac toxicology. Cardiovasc. Toxicol. 5: 203-214, 2005.

- Lipinski, R.J., Cook, C.H., Barnett, D.H., Gipp, J.J., Peterson, R.E., and Bushman, W.: Sonic hedgehog signaling regulates the expression of *Insulin-like growth factor binding protein-6* during fetal prostate development. Dev. Dyn. 233: 829-836, 2005.

- Fritz, W.A., Lin, T.-M., Moore, R.W., Cooke, P.S., and Peterson, R.E.: *In utero* and lactational 2,3,7,8-tetrachlorodibenzo-p-dioxin exposure: Effects on the prostate and its response to castration in senescent C57BL/6J mice. Toxicol. Sci. 86: 387-395, 2005.

- Doles, J.D., Vezina, C.M., Lipinski, R.J., Peterson, R.E., and Bushman, W.: Growth, morphogenesis, and differentiation during mouse prostate development *in situ*, in renal grafts, and *in vitro*. Prostate 65 (4): 390-399, 2005.

- Carney, S.A., Prasch, A.L., Heideman, W., and Peterson, R.E.: Understanding dioxin developmental toxicity using the zebrafish model. Birth Defects Research, Part A: Clinical and Molecular Teratology 76: 7 -18, 2006.

- Prasch, A.L., Tanguay, R.L., Mehta, V., Heideman, W., and Peterson, R.E.: Identification of zebrafish ARNT1 homologs: TCDD developmental toxicity in zebrafish requires ARNT1. Mol. Pharmacol. 69: 776-787, 2006.

- Carney, S.A., Chen, J., Burns, C.G., Xiong, K.M., Peterson, R.E., and Heideman, W.: AHR activation produces heart-specific transcriptional and toxic responses in developing zebrafish. Mol. Pharmacol. 70: 1-13, 2006.

- van den Berg, M., Birnbaum, L., Denison, M., De Vito, M., Farland, W., Feeley, M., Fiedler, H., Hakansson, H., Hanberg, A., Haws, L., Rose, M., Safe, S., Schrenk, D., Tohyama, C., Tritscher, A., Tuomisto, J., Tysklind, M., Walker, N., and Peterson, R.E.: The 2005 World Health Organization re-evaluation of human and mammalian toxic equivalency factors for dioxins and dioxin-like compounds. Toxicol. Sci. 93: 223-241, 2006.

- Antkiewicz, D.S., Peterson, R.E., Heideman, W.: Blocking expression of AHR2 and ARNT1 in zebrafish larvae protects against cardiac toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin. Toxicol. Sci. 94: 175 -182, 2006.

- Fritz, W.A., Lin, T.-M., Cardiff, R.D. and Peterson, R.E.: The aryl hydrocarbon receptor inhibits prostate carcinogenesis in TRAMP mice. Carcinogenesis 28(2): 497-505, 2007.

- Cook, C., Vezina, C.M., Hicks, S.M., Shaw, A., Yu, M., Peterson, R.E., and Bushman, W.: Noggin is required for normal lobe patterning and ductal budding in the mouse prostate. Dev. Biol. 312(1): 217-230, 2007.

- Kim, K.H., Antkiewicz, D.S., Kim, T.G., Heideman, W., Peterson, R.E., and Lee, Y.: Lrrc10 is required for early heart development and function in zebrafish. Dev. Biol. 308(2): 494-506, 2007.

- King Heiden, T.C., Dengler, E. Kao, W.J., Heideman, W. and Peterson, R.E.: Developmental toxicity of low generation PAMAM dendrimers in zebrafish. Toxicol. Appl. Pharmacol. 225: 70-79, 2007.

- Lipinski, R.J., Dengler, E., Kiehn, M., Peterson, R.E. and Bushman, W.: Identification and characterization of several dietary alkaloids as weak inhibitors of hedgehog signaling. Toxicol. Sci. 100 (2): 456-463, 2007.

- Chen, J., Carney, S.A., Peterson, R.E., and Heideman, W.: Comparative genomics identifies genes mediating cardiotoxicity in the embryonic zebrafish heart. Physiol. Genomics 33: 148-158, 2008.

- Mukai, M., Lin, T.M., Peterson, R.E., Cooke, P.S., and Tischkau, S.A.: Behavioral rhythmicity of mice lacking AhR and attentuation of light-induced phase shift by 2,3,7,8-tetrachlorodibenzo-p-dioxin. J. Biol. Rhyth. 23: 200-210, 2008.

- Vezina, C.M., Allgeier, S.H., Fritz, W.A., Moore, R.W., Strerath, M., Bushman, W., and Peterson, R.E.: Retinoic acid induces prostatic bud formation. Dev. Dyn. 237: 1321-1333, 2008.

- Lipinski, R.J., Hutson, P.R., Hannam, P.W., Nydza, R.J., Washington, I.M., Moore, R.W., Girdaukas, G.G., Peterson, R.E. and Bushman, W.: Dose- and route-dependent teratogenicity, toxicity, and pharmacokinetic profiles of the Hedgehog signaling antagonist cyclopamine in the mouse. Toxicol. Sci. 104: 189-197, 2008.

- Tillitt, D.E., Cook, P.M., Giesy, J.P., Heideman, W. and Peterson, R.E.: Reproductive impairment of Great Lakes lake trout by dioxin-like chemicals. In: The Toxicology of Fishes, Unit IV, Case Studies, (Di Giulio, R.T. and Hinton, D., eds.), CRC Press, Boca Raton, FL, Chapter 21, pp 819-875, 2008.

- Fritz, W.A., Lin, T.L., and Peterson, R.E.: The aryl hydrocarbon receptor (AhR) inhibits vanadate-induced vascular endothelial growth factor (VEGF) production in TRAMP prostates. Carcinogenesis : - , 2008. (In Press)

- Mehta, V., Peterson, R.E., and Heideman, W.: 2,3,7,8-Tetrachlorodibenzo-p-dioxin exposure prevents cardiac valve formation in developing zebrafish. Toxicol. Sci. *:* - , 2008. (In Press).

- King Heiden, T.C., Wiecinski, P., Mangham, A., Metz, K.M., Nesbit, D., Pedersen, J.A., Hamers, R.J., Heideman, W., and Peterson, R.E.: Developmental Toxicity of Quantum Dots in Zebrafish Embryos: Shedding Light on Potential Ecotoxicological Risks of Engineered Nanoparticles. Env. Sci. Technol. . 2008. (Submitted).

- Vezina, C.M., Allgeier, S.H., Moore, R.W., Lin, T.M., Bemis, J.C., Gasiewicz, T.A., and Peterson, R.E.: Spatiotemporal Patterns of Aryl Hydrocarbon Receptor Signaling and Prostatic Budding in 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin-Exposed Mice. Toxicol. Sci., 2008. (Submitted).