

Daniel L. Villeneuve

Postdoctoral Research Biologist

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Education:

B.S., Biology and Water Resources, University of Wisconsin-Stevens Point, Stevens Point, WI, 1995

Ph.D., Zoology-Environmental Toxicology, Michigan State University, East Lansing, MI, 2000

Employment:

2006-Present NHEERL Postdoctoral research biologist, U.S. EPA, Duluth, MN
2004-2006 National Research Council postdoctoral research associate, U.S. EPA, Duluth, MN
2002-2003 Postdoctoral research associate, Environmental and Molecular Toxicology, Oregon State University, Corvallis, OR
2000-2002 Postdoctoral research associate, Aquatic Toxicology Laboratory, Michigan State University, East Lansing, MI

Research Interests and Skills:

Aquatic ecotoxicology; endocrine disruption; endocrine physiology; biochemical and molecular toxicology; systems biology; in vitro bioassays.

Professional Societies:

1993-Present Society of Environmental Toxicology and Chemistry (SETAC), member

1992-1995 American Water Resources Association, student member

Selected Appointments/Honors/Major Awards:

1999 SETAC/Environmental Toxicology and Chemistry – Best Student Paper Award

1995 Michigan State University Distinguished Fellowship

1995 Outstanding College of Natural Resources (CNR) Student Award, UW-Stevens Point

Selected Publications:

Villeneuve DL, Miracle AL, Jensen KM, Degitz SJ, Kahl MD, Korte JJ, Greene KJ, Blake LS, Linnum A, Ankley GT. 2007. Development of quantitative real-time PCR assays for fathead minnow (*Pimephales promelas*) gonadotropin β subunit mRNAs to support endocrine disruptor research. *Compar. Biochem. Physiol. Part C*. (in press). doi: 10.1016/j.cbpc.2006.11.003

Villeneuve DL, Larkin P, Knoebl I, Miracle AL, Kahl MD, Jensen KM, Makynen EA, Durhan EJ, Carter BC, Denslow ND, Ankley GT. 2007. A graphical systems model to facilitate hypothesis-driven ecotoxicogenomics research on the teleost brain-pituitary-gonadal axis. *Environ. Sci. Technol.* 41(1):321-330.

Miller DH, Jensen KM, Villeneuve DL, Kahl MD, Makynen EA, Durhan EJ, Ankley GT. 2007. Linkage of biochemical responses to population level effects: a case study with vitellogenin in the fathead minnow. *Environ. Toxicol. Chem.* (in press).

Hecker M, Murphy MB, Coady KK, Villeneuve DL, Jones PD, Carr JA, Solomon KR, Smith EE, Van der Kraak G, Gross T, Du Preez L, Kendall RJ, Giesy JP. 2006. Terminology of gonadal anomalies in fish and amphibians resulting from chemical exposures. *Rev. Environ. Contam. Toxicol.* 187:103-132.

Villeneuve DL, Murphy MB, Kahl MD, Jensen KM, Butterworth BC, Makynen EA, Durhan EJ, Linnum A, Leino RL, Curtis LR, Giesy JP, Ankley GT. 2006. Evaluation of the methoxytriazine herbicide prometon, using a short-term fathead minnow reproduction test and a suite of in vitro bioassays. *Environ. Toxicol. Chem.* 25 (8): 2143-2153.

Ankley GT, Villeneuve DL. 2006. The fathead minnow in aquatic toxicology: past, present, and future. *Aquat. Toxicol.* 78:91-102.

Villeneuve DL, Knoebl I, Kahl MD, Jensen KM, Hammermeister DE, Greene KJ, Blake LS, Ankley GT. 2006. Relationship between brain and ovary aromatase activity and isoform-specific aromatase mRNA expression in the fathead minnow (*Pimephales promelas*). *Aquat. Toxicol.* 76:353-368.

Ankley GT, Jensen KM, Durhan EJ, Makynen EA, Butterworth BC, Kahl MD, Villeneuve DL, Linnum AL, Gray LE, Cardon M, Wilson VS. 2005. Effects of two fungicides with multiple modes of action on

- reproductive endocrine function in the fathead minnow (*Pimephales promelas*). *Toxicol. Sci.* 86:300-308.
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- Villeneuve DL, Curtis LR, Jenkins JJ, Warner KE, Tilton F, Kent ML, Watral VG, Cunningham ME, Markle DF, Sethajintanin D, Krissanakriangkrai O, Johnson ER, Grove R, Anderson KA. 2005. Environmental stresses and skeletal deformities in fish from the Willamette River, Oregon. *Environ. Sci. Technol.* 39: 3495-3506.
- Hecker M, Kim WJ, Park J-W, Murphy MB, Villeneuve D, Coady KK, Jones PD, Solomon KR, Van der Kraak G, Carr JA, Smith EE, du Preez L, Kendall RJ, Giesy JP. 2005. Plasma concentrations of estradiol and testosterone, gonadal aromatase activity and ultrastructure of the testis in *Xenopus laevis* exposed to estradiol or atrazine. *Aquat. Toxicol.* 72:383-396.
- Snyder EM, Snyder SA, Kelly KL, Gross TS, Villeneuve DL, Fitzgerald SD, Villalobos SA, Giesy JP. 2004. Reproductive responses of common carp (*Cyprinus carpio*) exposed in cages to influent of the Las Vegas Wash in Lake Mead, Nevada, USA, from late winter to early spring. *Environ. Sci. Technol.* 38:6385-6395.
- Villeneuve, D.L., K. Kannan, B.T. Priest, J.P. Giesy. 2002. In vitro assessment of potential mechanism-specific effects of polybrominated diphenyl ethers. *Environ. Toxicol. Chem.* 21:2431-2433
- Villeneuve, D.L., J.S. Khim, K. Kannan, J.P. Giesy. 2002. Relative potencies of individual polycyclic aromatic hydrocarbons to induce dioxinlike and estrogenic responses in three cell lines. *Environ. Toxicol.* 17:128-137.
- Villeneuve, D.L., J.S. Khim, K. Kannan, J.P. Giesy. 2001. Response of fish and mammalian *in vitro* bioassays to complex mixtures of polychlorinated naphthalenes, polychlorinated biphenyls, and polycyclic aromatic hydrocarbons. *Aquatic Toxicol.* 54:125-141
- Snyder, S.A., D.L. Villeneuve, E.M. Snyder, J.P. Giesy. 2001. Identification and quantitation of estrogen receptor agonists in wastewater effluents. *Environ. Sci. Technol.* 35:3620-3625..
- Villeneuve, D.L., A.L. Blankenship, and J.P. Giesy. 2000. Derivation and application of relative potency estimates based on *in vitro* bioassay results. *Environ. Toxicol. Chem.* 19: 2835-2843.
- Khim, J.S., D.L. Villeneuve, K. Kannan, , C.H. Koh, and J.P. Giesy. 1999. Characterization and distribution of trace organic contaminants in sediment from Masan Bay, Korea: 2. *in vitro* gene expression assays. *Environ Sci Technol.* 33:4206-4211.
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- Villeneuve, D.L., R.L. Crunkilton, and W.M. DeVita. 1997. Aryl hydrocarbon receptor-mediated toxic potency of dissolved lipophilic organic contaminants collected from Lincoln Creek, Milwaukee, Wisconsin, USA, to PLHC-1 (*Poeciliopsis lucida*) fish hepatoma cells. *Environ. Toxicol. Chem.* 16:977-984.