

**David L. Lattier, Research Molecular Biologist / Senior Scientist, in EPA's National Exposure Research Laboratory**

Exposure Methods and Measurements Division

[Mailing Address](#)

[lattier.david@epa.gov](mailto:lattier.david@epa.gov)

**Area of Expertise:** I am involved with research that spans an array of molecular and cellular disciplines, and methods development within those scientific areas that will lead to immediate and transferable bioindicators central to a program in exposure science. I currently serve as a delegate to the USEPA Genomics Task Force, which was responsible for promulgating the Interim Policy on Genomics and publishing a work on the implications, and potential applications, of genomics research at the USEPA, including research needs in the area of toxicogenomics and risk assessment. Additionally, past Co-Chair of the Genomics Framework Performance Based Quality Assurance Workgroup, an assemblage appointed by USEPA Science Policy Council. The joint genomics framework workgroups (six total) have established interim guidance for microarray based approaches that outline the Agency's acceptance criteria for genomics data in support of regulatory claims.

Have recently completed development of a technically transferable method, the specific aim of which is to inexorably link invariable anonymous primary gene products to toxicant-specific (and chemical mixture-specific) Mode of Actions (MOAs) for strong inference, first line monitoring in aquatic systems.

**Select Publications:**

- D. A. Wiginton, D. J. Kaplan, J. C. States, A. L. Akeson, C. M. Perme, I. J. Bilyk, A. J. Vaughn, D. L. Lattier and J. J. Hutton. 1986. Complete sequence and structure of the gene for human adenosine deaminase. *Biochemistry*. 25: 8234-8244.
- D. L. Lattier, J. C. States, J. J. Hutton and D. A. Wiginton. 1989. Cell type-specific transcriptional regulation of the human adenosine deaminase gene. *Nucleic Acids Research*. 17: 1061-1076.
- B. Aronow, D. Lattier, R. Silbiger, M. Dusing, J. Hutton, G. Jones, J. Stock, J. McNeish, S. Potter and D. Witte. 1989. Evidence for a complex regulatory array in the first intron of the human adenosine deaminase gene. *Genes and Development*. 3: 1384-1400.
- R. J. Bohinski, J. A. Huffman, J. A. Whitsett and D. L. Lattier. 1993. Cis active elements controlling lung cell-specific expression of human pulmonary surfactant protein B gene. *Journal of Biological Chemistry*. 268: 11160-11166.
- D. A. Gordon, D. L. Lattier, R. N. Silbiger, J. Torsella, J. O. Wolff and M. K. Smith. 1998. Determination of genetic diversity and paternity in the gray tailed vole (*Microtus canicaudus*) by RAPD-PCR. *Journal of Mammalogy*. 79: 604-611.

A. L. Miracle, G. P. Toth and D. L. Lattier. 2003. The path from molecular indicators of exposure to describing dynamic biological systems in an aquatic organism: Microarrays and the fathead minnow. *Ecotoxicology*. 12: 457-462.

View more research publications by [David Lattier](#).

### **Education:**

- Ph.D., Developmental Molecular Biology, 1989, University of Cincinnati, College of Medicine and Cincinnati Children's Hospital, Institute for Developmental Research
- B.S., Biology and Mathematics, 1984, University of Cincinnati

### **Professional Experience:**

#### Honors and Awards:

- New Investigator, National Institutes of Health (NIH), National Institute of Heart, Lung and Blood Program, University of Cincinnati, College of Medicine and Cincinnati Children's Hospital, 1989 to 1994
- 1998 USEPA, Science and Technology Achievement Award, Level II
- 2005 USEPA/ORD, Bronze Medal, Innovation and Technology Transfer
- 2006 USEPA, Science and Technology Achievement Award, Honorable Mention
- 2007 USEPA/ORD, Honor Award, scientific initiatives
- 2007 Tenured as US Government Senior Scientist, endorsed by *Technical Qualifications Board*
- 2010 USEPA, Office of Water, Science and Technology Achievement Award
- 2011 USEPA/ORD Distinguished Science Award; Computational Toxicology Team
- 2013-2016 Interstate Technology & Regulatory Council (ITRC): Membership and scientific counsel for the following investigative panels - Environmental Molecular Diagnostics (EMD) Team, and Groundwater Statistics and Monitoring Compliance
- 2013-15; Appointed by State of California to serve on select Molecular Biomarkers Panel for purposes of review and oversight; San Francisco Bay Estuary initiative, integrating sustainable initiatives in Human and Ecological health