The WSU-FEQL has a long-standing interest and professional involvement in understanding the environmental fate and transport of trace-level volatile and semi-volatile organics in air, water, and on land surfaces. Our current research focus is on international trade concerns regarding dietary risks from pesticides. Our facility is also currently developing sensitive analytical methods to assess bee colony exposure to certain nitro-substituted neonicotinoid insecticides (and their metabolites) implicated in colony collapse disorder. Other areas of recent research include: 1) developing assessment tools for specific biomarkers useful for monitoring chemical exposures to sensitive subpopulations in agricultural communities 2) a region-wide residential air monitoring program for understanding implications of off-target fumigant movement on public health, 3) sublethal chemical assessments in surface waters that can have neurobehavioral effects on endangered salmonid species, and 4) characterizing/isolating bioactive animal/plant volatile emissions that may prove useful in enhancing conservation biological control in cropping systems. Principle responsibilities of my state-mandated appointment includes i) oversight on ecological risk and dietary risk assessment studies under federal 40CFR Part 160 Good Laboratory Practices (GLP), and ii) advancing collaborative research supporting PNW agriculture and public health. The WSU-FEQL has completed over 70 human and environmental regulatory science submissions. These deliverables to state and federal public health and environmental agencies contribute directly to regulatory decision-making at the state and national level. Additionally, this state-mandated facility provides field-analytical study direction oversight, system design, state of the art trace-level instrumentation support (multiple GC/LC chromatographic detection and MS platforms) with a professional staff fostering collaborative research in the areas of natural product research, environmental toxicology, chemical fate and transport, and chemical exposures impacting public and environment.

Peer-reviewed Journal Publications (Year 2000 to present)


• Tsai MY, Elgethun K, Ramaprasad J, Yost M, Felsot AS, Hebert VR, and Fenske RA. The Washington aerial spray drift study: Modeling pesticide spray drift deposition from an aerial application. (accepted in *Atmos Environ*, June 2005)


• Hebert, VR, Middleton, JR, Tomaszewska, E, Fox, LK. Methodology for Quantifying Residues of Chlorhexidine in Raw Dairy Milk *J. Agric. Food Chem*.; 51(3); 567-570 (2003).


Invited Reviews, Book Chapters, Peer Reviewed (2000 to present)


