

Translating Toxicology into Public Health: ETX 190/PTX 290

Winter Quarter, Wednesdays, 4:10 – 5:00 pm in the Foster Conference Room

A seminar series to learn how toxicologists at Cal/EPA's Office of Environmental Health Hazard Assessment (many of whom are UCD graduates) use academic research and risk assessment to estimate safe levels of human exposure to the chemical contaminants in our environment.

Presentations by individual toxicologists describe their own projects, enabling students to learn about the work that California/ EPA and US EPA toxicologists do in their careers to protect public health. This quarter's topics include:

- **An overview of risk assessment, its past and current practice, and exciting future changes that incorporate molecular mechanisms**
- **Variations in the metabolism of toxins in animal models affect estimates of human safety**
- **Inter-individual human variability in genetic metabolic enzymes can determine vulnerability**
- **Nanoparticles have commercial applications, but poorly understood effects in humans**
- **Estimating public consumption of fish species that contain mercury and dioxins to set limits**
- **Estimating a safe level of exposure to toxic air contaminants for humans of all ages**
- **Using risk assessment to protect children at school sites and residents from contaminants in soil**
- **Meeting with people concerned about pesticide use and exotic insects in their communities**
- **How the chemistry that produced chemical contaminants can become "Green Chemistry"**
- **The type of toxicity that a chemical produces varies with age as well as dose**