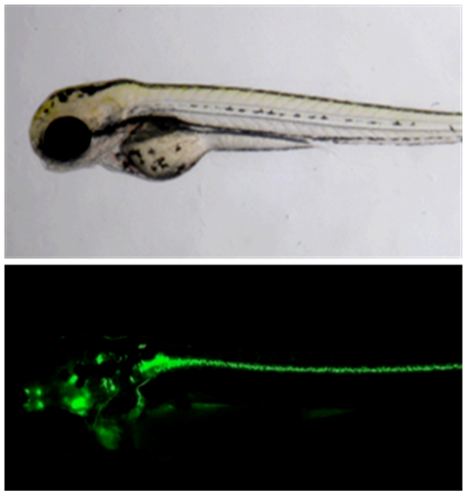
Biology Seminar

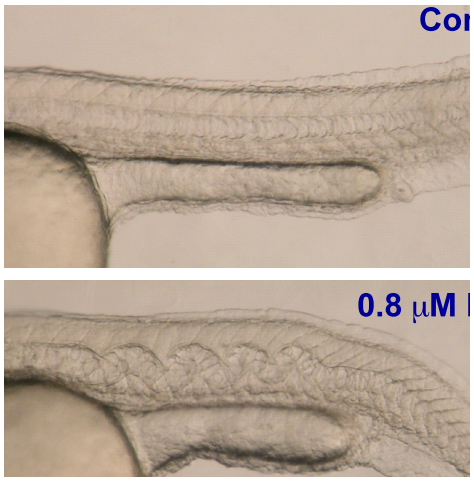
Dr. Robert Tanguay

Oregon State University

Using Zebrafish as a Platform to Advance Environmental and Human Health

The Tanguay laboratory has a diverse research portfolio. For most studies they exploit the advantages of the zebrafish (*Danio rerio)* model to improve human and environmental health. In the toxicology division of the laboratory they evaluate biological interactions and responses to environmental chemicals, pharmaceuticals and nanoparticles using rapid throughput approaches. They then seek to understand the molecular mechanisms by which these exposures produce biological responses. With a mechanistic understanding this will enable strategies to protect both humans and the environment. His group has a long interest in understanding the mechanism(s) underlying developmental toxicity in response to chemicals such as 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD), ethanol, nicotine, and pesticides. In the regenerative medicine division they are developing new methods and approaches to discover the molecular pathways that prevent or promote vertebrate tissue regeneration. In this talk he will present examples illustrating the power of the zebrafish model to begin to unravel the gene environmental interactions that together lead to adverse human and health effects.





Oct 1, 2010 **2:00 PM** **ENV125 (EESAT)**