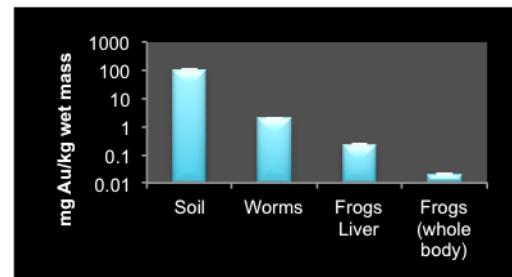
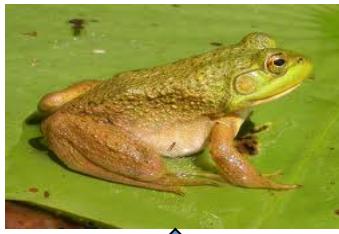


Trophic Transfer Enhances Bioavailability of Au Nanoparticles

J. Unrine, O. Zhurbich, A. Shoultz-Wilson, O. Tsyusko and P. Bertsch

Department of Plant and Soil Sciences, University of Kentucky

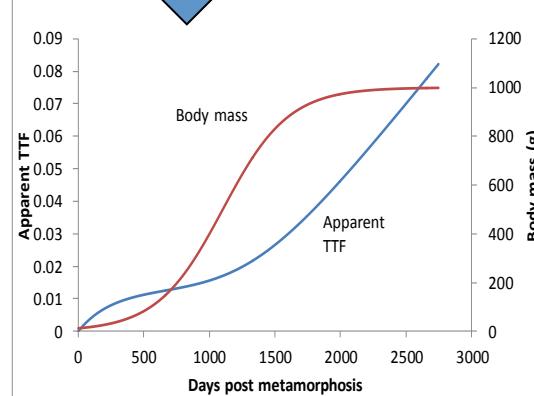
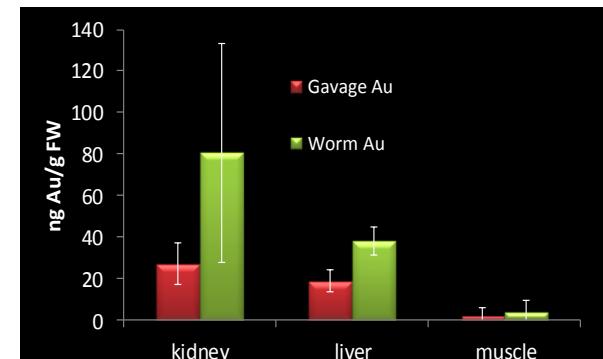


$$TTF(t) = C_{frog}(t)/C_{worm}(t) \quad (1)$$

$$C_{frog}(t) = A_{frog}(t)/M_{frog}(t) \quad (2)$$

$$M_{frog}(t) = M_a/(1 + be^{-kt}) \quad (3)$$

$$A_{frog}(t) = (C_{worm}(t) \times AE \times IR \times M_{frog}(t)) + A_{frog(t-1)} \quad (4)$$



- Demonstrated trophic transfer of Au nanoparticles.
- Showed that trophic transfer enhances bioavailability of nanoparticles.
- Modeled concentrations over lifespan of predator using a biodynamic model.