

**UNIVERSITY FOR SENIORS**  
**University of Minnesota-Duluth Continuing Education**  
**Winter Term**

**Research at EPA in Duluth: A historical perspective**

(January 14 – February 4, 2010)\*

**Presentation #2 (Thursday January 28 at Noon)**

*Amphibian metamorphosis: a sensitive life stage to chemical and non-chemical stressors*

Joe Tietge

Amphibian metamorphosis is a dynamic period of post-embryonic development which transforms the larval anuran into the juvenile. The body structure is remodeled through a variety of processes which may be perturbed by exposure to chemicals as well as other environmental stressors. This talk will discuss research associated with metamorphosis, with emphasis on the current understanding of recent findings on the causes of limb malformations and how chemicals can effect thyroid function.