Teasing apart how specific nanoparticle features relate to environmental fate and contribute to ecotoxicity

Identify the

features of lipid-

coated AgNPs that

lead to particle

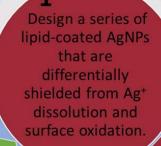
instability.

Award No: 219828

Location: Portland State University (Marilyn R. Mackiewicz) and Oregon State University (Stacey L. Harper)

Start date / end date: 4/1/18-3/31/21



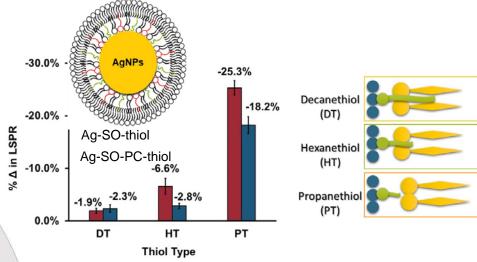


Assess the potential ecotoxicity of the suite of AgNPs using a novel nanocosm assay.

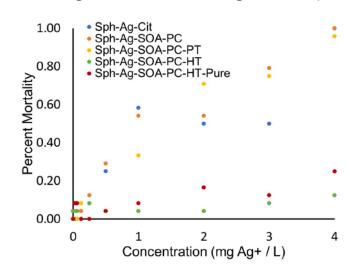
is to improve our understanding of the specific physiochemical features of AgNPs dictate Nanoparticle-Biological Interactions (NBI's)

3

Determine the uptake and toxicity of the AgNP suite.



We have successfully produced shielded and unshielded AgNPs to control for Ag⁺ release (Aim 1)



Initial studies show that spherical AgNPs shielded from oxidation and release of Ag⁺ (red and green) are stable AgNPs with minimal toxicity (Aim 3)