

Title: Smart Magnetic Nanoparticle Imaging Probes  
Type: Postdoc  
Awardee: Yong Zhang  
Mentors: M. Zhang – UW; Kevin Minard – PNNL  
Description: In this proposal, we prepare magnetic nanoparticles-polyethylene glycol (PEG) conjugates coupled with fluorescent tags to enable subcellular targeting. The resultant nanoparticles conjugates are uniquely suited for cellular analysis using the combined confocal and magnetic resonance microscopy (CM-MRM) at PNNL. The magnetic reagents provide enhanced contrast for MRM analysis, while the fluorescent tags provide subcellular targeting and rapid detection via simultaneous confocal microscopy.