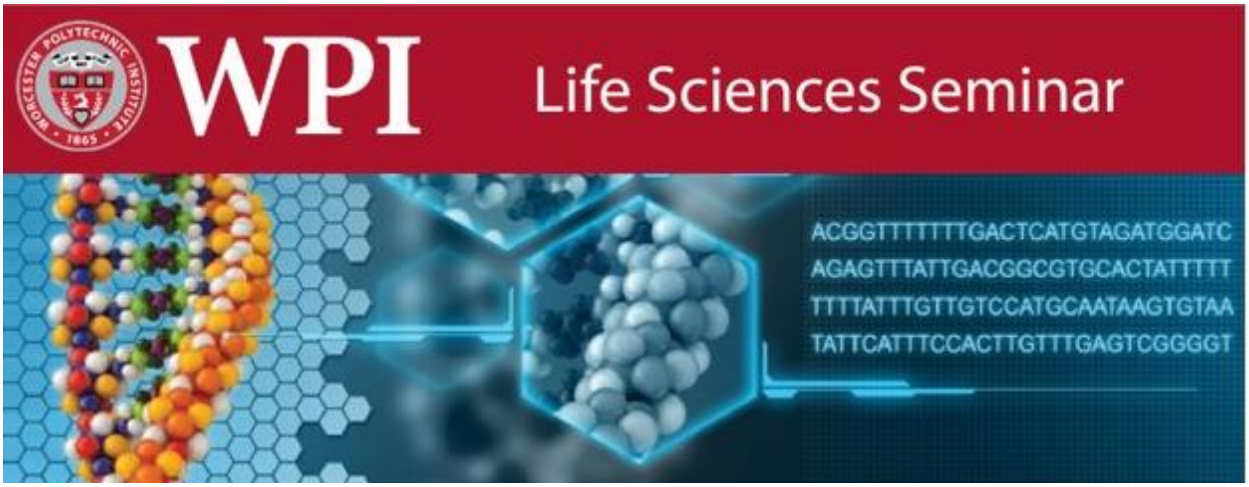

"Neural-immune interactions regulating healthy and diseased neural circuits"

Dorothy Schafer, PhD

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Tuesday, April 23rd 12pm
Gateway 1002
Pizza will be served

Abstract:
Microglia are resident macrophages of the central nervous system, which are increasingly appreciated to play key roles in regulating synaptic connectivity and function. Our early work demonstrated roles for microglia in developmental synaptic pruning, whereby microglia engulf and remove excess synapses in the developing brain via complement-dependent phagocytic signaling. We are now asking how microglial function and immune signaling are impacted after eating cellular and protein aggregate substrates. In the process, we have identified a novel aging-related factor secreted by microglia that modules Alzheimer's disease-related behavior.

Bio
Dr. Dorothy Schafer is a leader in the field studying microglia and neural-immune interactions within neural circuits. She received her bachelor's degree in Neuroscience from Mount Holyoke College in 2001 and her PhD from the University of Connecticut Health Center in 2008. She then began her postdoctoral training at Boston Children's Hospital in Dr. Beth Stevens' laboratory. Here, she made the discovery that microglia, a resident brain macrophage, engulf and prune away synapses that form in excess in the developing brain via the complement cascade. Dr. Schafer joined UMass Chan Medical School in 2015 where she has received several early career and mentoring awards. Her laboratory continues to innovate molecular genetic and imaging approaches to uncover interrogate microglia and immune molecule function within healthy and diseased neural circuits.