



Discovery Science  
Emerging Scholars Lecture

# “New Molecular Players Linking Muscle Metabolism and Growth”



Rita Brookheart, Ph.D.

Assistant Professor

Washington University School of Medicine

Dr. Brookheart’s seminar focuses on her lab’s mechanistic work of how Site-1 Protease (S1P) controls mitochondrial metabolism in skeletal muscle. S1P is a Golgi-resident protease required for the proteolytic cleavage and activation of an array of transcription factors that are required to maintain and restore cellular homeostasis in response to ER stress and disruptions in cellular sterol/lipid levels. Dr. Brookheart’s lab previously identified a patient with a gain-of-function mutation in S1P who exhibited exercise intolerance and abnormal skeletal muscle mitochondrial morphology. Building on this study, her lab defined a previously unknown role for S1P in skeletal muscle metabolism and mass.

Thursday  
September 29, 2022  
9:30 am CT  
PRB 206

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