

Department of Biochemistry and Molecular Biophysics Seminar

Wednesday, April 15 at 4:00 p.m. in Ackert 120

Coffee and cookies at 3:45 p.m. in Chalmers 168



Dr. D Cornelison, Professor

Departments of Biological Sciences and Molecular Microbiology &
Immunology
University of Missouri School of Medicine

Eph:ephrin signaling in myogenesis- The good, the bad and the repulsive

Cell surface signaling molecules of the Eph:ephrin family are expressed in all mammalian tissues. While they were first characterized as repulsive neuronal guidance molecules, they have since been shown to regulate multiple and diverse processes depending on the cell type(s) involved. Because Eph:ephrin signaling is both bidirectional and promiscuous, the outcome of any given interaction is dependent on the Eph:ephrin pairing as well as the additional signaling proteins in complex with each. We have shown that EphA7 expressed in skeletal muscle regulates the decision to proliferate vs. differentiate during muscle development, regeneration, and cancer. Our lab is currently exploring how these interactions are initiated, regulated, and propagated in the context of the choice to proliferate vs. terminally differentiate in skeletal muscle.