

Department of Molecular and Cellular Biology



Graduate Seminar MCB*6500

Friday, Jan. 13, 2017 in SSC 1511 @ 12:45 p.m.

presented by:

Hannah Robeson

Molecular, cellular and behavioral characterization of mice lacking the molecular adaptor protein ShcD

Adaptor proteins, including those in the Shc family, are involved in many cellular signaling pathways which regulate important cellular functions. While several members of the Shc family have been implicated in tumor cell growth and metastasis, neural stem cell proliferation and differentiation, and maintenance of specific neuronal subpopulations, the function of the most recently isolated member, ShcD, remains largely uncharacterized. ShcD is most highly expressed in the adult brain, specifically the olfactory bulb and olfactory nerve layer and preliminary research has determined that mice lacking ShcD present with structural and functional olfactory defects. Data collected from cancerous cells as well as various normal tissues has associated ShcD with processes including cellular proliferation, differentiation and migration within the central nervous system, however it is unclear how exactly ShcD is involved. The proposed project aims to utilize recently developed ShcD knockout mice to further explore the physiological role of ShcD within the mammalian nervous system at molecular, cellular and behavioral levels.