Invited Seminar

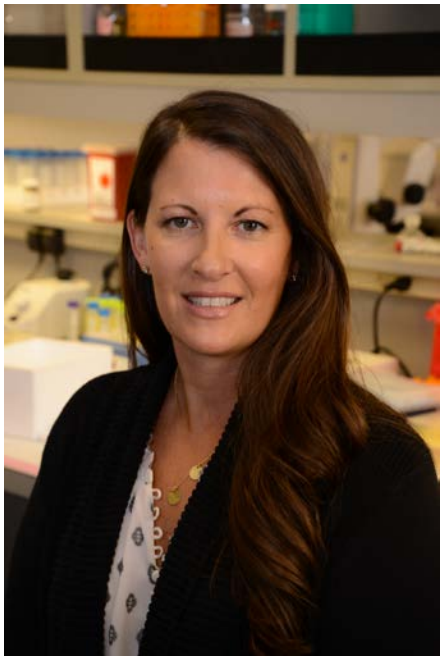
Dr. Brooke Emerling

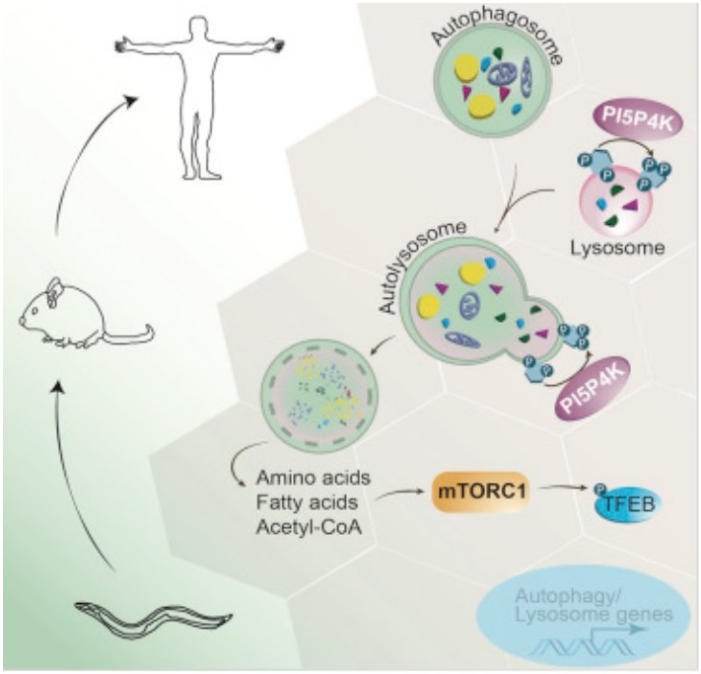
Assistant Professor
Cancer Metabolism and Signaling Networks Program,
Sanford Burnham Prebys Medical Discovery Institute, La Jolla, California

Title: Non-canonical phosphatidylinositol kinases in the control of cellular lipid metabolism and autophagy

Thursday August 16 at 12 noon, room H810 (top floor), MEM Murtenstrasse 35

Host: Joanna Triscott, DBMR Precision Oncology group (joanna.triscott@dbmr.unibe.ch) – please get in touch if you would like to meet the Speaker.





Brooke M. Emerling is an expert is phosphoinositide signaling and was the first to identify a family of 'druggable' enzymes whose loss of function results in synthetic lethality with p53 loss. Prior to her discovery of this synthetic lethality, this novel class of phosphoinositide enzymes, the phosphatidylinositol-5-phosphate 4-kinases (PI5P4Ks), were not a focus for oncology research or cancer metabolism. Recently, her team revealed roles of the PI5P4Ks in autophagy and that may be key for cell survival though metabolic stress. Her ongoing work focuses on determining the role of PI5P4K in p53 deficient cancers, especially the triple negative subgroup where targeted therapies have not been effective.

Selected publications:

Lundquist, Mark R., et al. "Phosphatidylinositol-5-phosphate 4-kinases regulate cellular lipid metabolism by facilitating autophagy." Molecular cell 70.3 (2018): 531-544.

Emerling, Brooke M., et al. "Depletion of a putatively druggable class of phosphatidylinositol kinases inhibits growth of p53-null tumors." Cell 155.4 (2013): 844-857.