

加齡研セミナー

日 時: 平成30年8月6日(月)午後5時～6時30分
Monday, 6 August 2018, 17:00～18:30

場 所: 加齡研実験研究棟7階 セミナー室1
7th Floor, Seminar Room 1, IDAC Center for Basic Aging Research

講 師: ジェフリー ラスマル Jeffrey Rathmell

所 属: ヴァンダービルト大学医学部
Vanderbilt University School of Medicine

演 題: Fueling T Cells in Inflammation and Cancer

担 当: 本橋 ほづみ(所属 遺伝子発現制御分野・内線8550)
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要 旨: Lymphocyte activation leads to rapid proliferation and differentiation and we have shown that CD4 T cell subsets are metabolically distinct. These metabolic distinctions may allow new understanding and approaches to manipulate immunity. We show that T cells in Renal Cell Carcinoma are metabolically suppressed and that improving metabolism can improve T cell function. Glut1 is a member of the glucose transporter family, of which T cells express several members. We have shown that while effector T cells require Glut1 and aerobic glycolysis to promote immunity, Treg can function independent of Glut1 to suppress Inflammatory Bowel Disease (IBD). In addition, T cells consume glutamine through Glutaminase and we show that this metabolic pathway is differentially utilized by effector T cell subsets. Understanding mechanisms that regulate T cell metabolism may provide new tools to modulate immunity the balance of T cell effector and regulatory populations.

主催／加齡医学研究所研究会同窓会