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Monash Biomedicine Discovery Institute
Metabolic Disease and Obesity Program

OTHER PROGRAM AFFILIATIONS



Cardiovascular Disease



Infection and Immunity

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Our group's focus is to link genes and complex biological pathways to physiological function and dysfunction by the use of novel genomics, proteomics, metabolomics and other systems biology approaches. The main disease area of interest is in metabolic disease using genetically modified models to study obesity, diabetes, lipid disorders and immune & inflammation function.

Research Projects

1. How does SHIP2 regulate SNS and glucose sensing in the CNS?
2. How does the carbohydrate sensing protein modulate a glucose sensing in the brain?
3. How does adipose tissue expression of the carbohydrate sensing protein (ChREBP) modulate whole body insulin sensitivity?
4. What is the role of the TNFSF14 in the hepatic steatosis and NASH?

Selected significant publications:

1. Gusarova V, Howard V, Okamoto H, Koehler-Stec E-M, Papadopoulos N, Murphy A, Yancopoulos G, Stahl N, **Sleeman MW**. 2012. Reduction of LDL cholesterol by a monoclonal antibody to PCSK9 in rodents and nonhuman primates. *Clin Lipidol* 7(6): 737-43
2. Kang K, Schmahl J, Lee JM, Garcia K, Patil K, Chen A, Keene M, Murphy A, **Sleeman MW**. 2012. Mouse ghrelin-O-acyltransferase (GOAT) plays a critical role in bile acid reabsorption. *FASEB J*. 26(1): 259-271
3. Kang K, Zmuda E, **Sleeman MW**. 2011. Physiological role of ghrelin as revealed by the ghrelin and GOAT knockout mice. *Peptides* 32(11):2236-41
4. Perez-Tilve D, Hofmann SM, Basford J, Nogueiras R, Pfluger PT, Patterson JT, Grant E, Wilson-Perez HE, Granholm NA, Arnold M, Trevaskis JL, Butler AA, Davidson WS, Woods SC, Benoit SC, **Sleeman MW**, DiMarchi RD, Hui DY, Tschöp MH. 2010. Melanocortin signaling in the CNS directly regulates circulating cholesterol. *Nat Neurosci*. 13(7):877-82
5. Zhao TJ, Liang G, Li RL, Xie X, **Sleeman MW**, Murphy AJ, Valenzuela DM, Yancopoulos GD, Goldstein JL, Brown MS. 2010. Ghrelin O-acyltransferase (GOAT) is essential for growth hormone-mediated survival of calorie-restricted mice. *PNAS USA* 107(16): 7467-7472