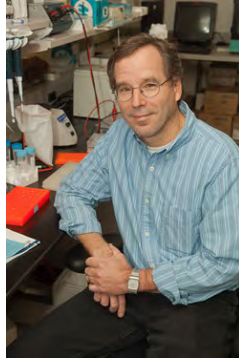


Guest lecture

“A New Locus of Lipolysis Control in Fat and Muscle”



2 October 2015

11:00 – 12:00 AM in U20

Professor James G. Granneman

Director, Center for Integrative Metabolic and Endocrine Research
Wayne State University School of Medicine
Detroit, USA

Abstract:

The mobilization of lipid energy (lipolysis) is fundamental process that involves dynamic protein interactions at the surface of intracellular lipid droplets. Using high throughput screening, affinity labeling, and molecular imaging, we discovered compounds that directly bind and activate ABHD5 (CGI-58), a conserved lipase-coactivator protein. Use of these synthetic ABHD5 ligands in molecular imaging assays exposed a novel endogenous pathway whereby long-chain acyl CoAs rapidly modulate the interaction of ABHD5 with lipid droplet scaffold proteins. This work demonstrates that ABHD5 is a ligand-regulated lipase activator, and suggests that synthetic ABHD5 ligands might be developed into novel therapeutics that directly modulate fat catabolism.

Host: Professor Susanne Mandrup, Department of Biochemistry and Molecular Biology, SDU.