

ATLAS

&

Functional Genomics & Metabolism

Joint Distinguished Seminar

Thursday, June 13, 13:00-14:00 PM

BMB Seminar room (V18-501-1)

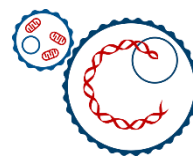
Apolipoprotein M – a potential regulator of brown fat activity



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Abstract

Apolipoprotein M – a potential regulator of brown fat activity

Apolipoprotein M (apoM) is the carrier of sphingosine-1-phosphate (S1P) in plasma high-density lipoproteins. S1P is a bioactive lipid interacting with five receptors (S1P1–5). Lack of apoM increases the amount of brown adipose tissue (BAT), accelerates the clearance of postprandial triglycerides, and protects against diet-induced obesity (i.e., a phenotype similar to that induced by cold exposure or β 3-adrenergic stimulation). Moreover, studies suggest that mice with overexpression of human apoM have a significant delayed triglyceride turnover. Finally, novel data suggest that S1P and apoM may play dependent as well as independent biological functions in BAT and triglyceride metabolism. The results reveal a link between the apoM/S1P axis and energy metabolism.