Small Molecules for the Treatment of Metabolic Disorders

Small molecule therapeutics for metabolic syndromes, such as non-alcoholic fatty liver disease (NAFLD), have been developed. Activation of AMP-activated protein kinase (AMPK) leads to inhibition of cholesterol synthesis, triglyceride synthesis, and lipogenesis, and, significantly, it can stimulate hepatic fatty acid oxidation. We have identified compounds that can activate AMPK more effectively than its endogenous ligand, ADP. These compounds could serve as lead compounds for a program focused on metabolic disorders such as NAFLD or non-alcoholic steatohepatitis (NASH).

Advantages:
- AMPK activation can increase hepatic fatty acid oxidation
- AMPK activation can inhibit cholesterol synthesis

Related Publications:
• A High Throughput Assay for Discovery of Small Molecules that Bind AMP-activated Protein Kinase (AMPK)

Inventors

Jay Brenman

For additional information, contact

Kyle Bartholomew
Commercialization Manager
kyle.bartholomew@unc.edu
919.962.5921