SCOHIA PHARMA, Inc.
July 28, 2020

Publication regarding a preclinical study; SCO-267, a GPR40 full agonist, is a novel strategy to treat NAFLD

In a new study published in *Journal of Pharmacology and Experimental Therapeutics*, researchers of SCOHIA PHARMA, Inc. have shown that SCO-267, a GPR40 full agonist, improves liver parameters in a mouse model of nonalcoholic fatty liver disease (NAFLD).

Research title
The GPR40 full agonist SCO-267 improves liver parameters in a mouse model of nonalcoholic fatty liver disease without affecting glucose or body weight
https://doi.org/10.1124/jpet.120.000046

NAFLD is a disorder that includes conditions ranging from nonalcoholic fatty liver to nonalcoholic steatohepatitis, which leads to an end-stage cirrhosis. NAFLD is the most common form of chronic liver disease worldwide, and hence development of new drugs is vital.

GPR40 is a G-protein-coupled receptor expressed in pancreatic islet and enteroendocrine cells, and its activation is known to stimulate islet and gut hormones. However, the effects of GPR40 full agonism on liver parameters in NAFLD are largely unknown. Hence, in the current study, we aimed at utilizing SCO-267, a GPR40 full agonist, in a preclinical NAFLD mouse model. An acute dose of SCO-267 stimulated glucagon and GLP-1 secretions, both of which are likely to have treatment effects on impaired liver, in mice. A chronic dose of SCO-267 effectively decreased liver triglyceride, weight, collagen content, and plasma alanine aminotransferase levels. Additionally, SCO-267 reduced the levels of oxidative stress markers. Furthermore, SCO-267 elevated mRNA levels of molecules with roles in mitochondrial function and beta-oxidation, while inhibiting those with roles in lipogenesis, inflammation, reactive oxygen species generation, and fibrosis in the liver. This result suggests that SCO-267–mediated full agonism of GPR40 may be a novel strategy to treat NAFLD.

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