Non-Confidential Description - PSU Inv. Disc. No. 4119

“Inhibitors of the Farnesoid X Receptor and Use Thereof in the Prevention of Weight Gain”

Field of Invention/Keywords:
Obesity, anti-obesity drugs, FXR-mediated diseases

Inventors
Shantu Amin, Dhimant Desai, Andrew Patterson

Background
Annual healthcare costs associated with treating obese patients in the United States number in the tens of billions of dollars. These costs are expected to continue to rise as a direct result of the growing obesity epidemic taking place in the United States. Most obese patients fail to achieve long-term weight loss through dieting, and weight-loss surgeries can be dangerous. Therefore, there is a significant unmet medical need for anti-obesity drugs that are both safe and efficacious.

Invention Description
This invention describes small molecule inhibitors that could potentially be developed into safe and efficacious anti-obesity drugs. The invention allows for the treatment or prevention of obesity through pharmacological modulation of intracellular signaling mediated by the farnesoid X receptor (FXR).

Commercial Applications
This invention may be of particular interest to pharmaceutical companies focused on developing drugs to treat obesity and/or other FXR-mediated diseases and conditions, including metabolic diseases, hypercholesterolemia, dyslipidemia, cardiovascular diseases, and neurological indications.

Status
PCT Application Serial No. PCT/US2014/049460 (Filed 8/1/2014)