Cincinnati Children's | Innovation Ventures

Endocrinology

Therapeutic Prevention of Obesity in At-Risk Populations

Brief Description of Technology

A method to prevent or treat diet-induced obesity and/or the associated co-morbidities in an at-risk population.

TECHNOLOGY ID

2011-0108

COMPLEMENTARY TECHNOLOGY

2007-0803

BUSINESS OPPORTUNITY

Exclusive License

TECHNOLOGY TYPE

Small Molecule

PATENT INFORMATION

US Non-Provisional Filing

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Technology Overview

Identifying safe/effective methods of regulating obesity associated weight gain has been problematic. Our technology represents methods/compositions for weight regulation and energy metabolism. We identified ligands, B-cell activating factor (BAFF), a proliferation-inducing ligand (APRIL) or their modulators, that prevent obesity. Animals expressing high levels of BAFF and given a high fat diet had significantly less weight gain compared to wild type. The prevention of diet-induced weight gain was dose dependent. Metabolic indicators such as glucose dysmetabolism, oxygen consumption and mitochondrial respiration demonstrate that BAFF regulates metabolic efficiency through modulation of brown fat thromogenic activity. These ligands represent a new method of regulating obesity.

Applications

- Therapeutic treatment to prevent obesity and/or regulate energy metabolism
- Prevention of diet-induced weight gain

Advantages

- Inreased energy metabolism
- Prevents weight gain
- Reduced risk for development of co-morbidities

Market Overview

More than 50% of the US population is projected to be obese by 2030. The projected market size for a safe and effective anti-obesity drug is US $2 billion by 2017.

Investigator Overview

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