Immunotherapy for the Treatment of Obesity

**Brief Description**
A method for using immunotherapy to identify, target and eliminate fat cells.

**Technology Overview**
Currently, there are no treatments for obesity that directly target and eliminate adipocytes (fat cells). Dr. Stanley Riddell, in collaboration with colleagues at the NIH, have demonstrated that an anti-ROR1 CAR T is able to specifically recognize mature adipocytes and exert cytolytic activity. The only normal tissue that expresses the ROR1 protein on the surface of the cell is preadipocytes, progenitor fat cells, which make them an ideal therapeutic target for immunotherapy. Experiments in nonhuman primates also demonstrated the favorable safety profile of administering anti-ROR1 CAR T cells in vivo.

**Applications**
- Method of reducing adipocytes by targeting ROR1 with CAR-T cells

**Advantages**
- Novel Mechanism for the Treatment of obesity

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**Business Opportunity**
Exclusive license
Non-exclusive license

**Technology Type**
Immuno-Oncology
Cell Therapy
Biologic

**State of Development**
Preclinical in vivo

**Patent Information**
US 9163258

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