Novel Agents for the Treatment and Diagnosis of Various Cancers
RU 824

**Technology Summary**
Breast cancer is the most common cancer in American women after skin cancer (~260,000 new cases diagnosed per year), and ovarian cancer is the leading gynecological cancer (~20,000 new cases per year) in the United States. A large proportion of breast and ovarian tumors express a molecule called cdr2, which can be recognized by the immune system in patients who have naturally occurring tumor immunity. Similar to cdr2, a protein called HuD is expressed in neurons and small cell lung cancers (SCLC). HuD is often referred to as an “onconeural antigen” as a result. Therefore, it is foreseeable that cdr2 and HuD are likely targets for therapeutic agents, including those treatments that would activate the immune system to attack and kill the antigen-bearing cancer cells. In addition, reagents that recognize cdr2 or HuD could be useful for the diagnosis of tumors expressing those antigens at an early stage of the cancer.

Our investigators have identified which parts of cdr2 and HuD that stimulate the immune system and have generated peptides that are capable of identifying human T-cells specific to cells expressing either cdr2 or HuD.

**Area of Application**
Blood-based cancer diagnostics

**Stage of Development**
Discovery

**Lead Inventor**
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**References**
- [http://newswire.rockefeller.edu/?page=engine&id=675](http://newswire.rockefeller.edu/?page=engine&id=675)

**Patent Information**
U.S. Patent 7,928,180 B2 (issued April 19, 2011)
U.S. Patent 8,193,313 (issued June 5, 2012)
U.S. Patent 8,541,547 (issued September 24, 2013)