PF-8600 (OX40 AGONIST)

PF-04518600 (PF-8600) is an investigational immunotherapy monoclonal antibody (mAb) that targets the human OX40 protein (CD134), a receptor that is expressed on several types of T cells (types of immune cells).

**Mechanism of Action**

OX40 protein is mostly expressed on T cells (CD4+ and CD8+) that have recently been exposed to antigens, for example tumor cells. When an OX40 agonist, such as PF-8600, binds to the OX40 protein receptor it triggers a co-stimulatory signal that is observed to be associated with increased production of T cells and inflammatory cytokines. This mechanism is thought to activate the dormant immune settings, which then may help fight cancer cells. Furthermore, in the tumor microenvironment (the cellular environment in which the tumor exists) OX40 agonist antibodies may suppress and/or reduce the regulatory T cells (Treg), which tend to inhibit effector T cell functions.

**The Potential of Combination Approach**

Preclinical studies suggest that combining PF-8600 with a checkpoint inhibitor, such as anti PD-1/anti-PD-L1, or other immunotherapies may be able to amplify the immune response, and show additive activity in syngeneic tumor models. More research, however, is needed to fully understand the mechanism of action of these potential combination approaches.

**Clinical Study**

**Phase 1**

In 2015, Pfizer initiated a Phase 1 trial of PF-8600 in patients with select advanced solid tumors, such as hepatocellular carcinoma, melanoma, clear cell renal cell carcinoma, or squamous cell head and neck cancer. The estimated enrollment is 180 patients.