Gedatolisib

Gedatolisib is the non-proprietary name for PF-05212384, an investigational, small molecule, dual inhibitor of the phosphatidylinositol-3-kinase (PI3K) and mammalian target of rapamycin (mTOR) signaling pathways, in development of solid tumors.

MECHANISM OF ACTION

Deregulation of the PI3K and mTOR signaling pathways is thought to promote cellular growth, proliferation, and survival of various cancer types.

DUAL INHIBITOR OF PI3K/mTOR PATHWAYS

Gedatolisib (PF-05212384) is thought to work by binding to and inhibiting PI3K and mTOR kinases. Activation of the PI3K/mTOR pathway promotes cell growth, survival, and resistance to chemotherapy and radiotherapy. This enzyme inhibition by gedatolisib may cause inhibition of growth of tumor cells that overexpress PI3K and mTOR and may result in the promotion of a particular mechanism of cell death (apoptosis).

THE POTENTIAL OF PI3K/mTOR DUAL INHIBITION

Preclinical data suggest that adding PI3K/mTOR inhibition to a CDK 4/6 inhibitor may enhance anti-tumor activity.[1] More research is needed to fully understand the potential of this investigational compound.

CLINICAL STUDIES

Pfizer is exploring the potential of gedatolisib (PF-05212384) to determine:

- Maximum tolerated dose
- Safety and efficacy profile
- Therapeutic potential in combination with other therapies

COMBINATION STUDIES

- A Phase 1 study in combination with either docetaxel, cisplatin, or dacomitinib in select advanced solid tumors (NCT01920061).[1]
- A Phase 1b study in combination with palbociclib/letrozole or palbociclib/fulvestrant in women with metastatic breast cancer (NCT02684032).

The safety and efficacy of the agent(s) under investigation have not been established. There is no guarantee that the agent(s) will receive regulatory approval and become commercially available for use(s) being investigated. All information is current as of May 2017.

REFERENCES

1. A Study of PF-05212384 in Combination With Other Anti-Tumor Agents. (n.d.). Retrieved March 20, 2017. https://clinicaltrials.gov/ct2/show/NCT01920061?term=PF-05212384&rank=10. Accessed February 28, 2017.

