iTeos Therapeutics SA files patent for immunomodulators in cancer immunotherapy

February 10th, 2014, Gosselies, Belgium – iTeos Therapeutics SA today announced the filing of the Company's first patent applications protecting proprietary inhibitors of the intracellular enzyme TDO2, which is expressed at high levels in specific cancers. iTeos Therapeutics has collaborated with Ludwig Cancer Research over the last year to identify small molecule inhibitors of the enzyme that display nanomolar potency, good selectivity, favorable pharmacokinetics profiles in rodents and activity in pharmacodynamic models.

“We are excited about realizing the potential of our small molecule immunomodulator discovery platform to create a new class of anti-cancer therapies in order to enhance the benefits of conventional chemotherapy, immune checkpoint inhibition and/or therapeutic vaccination,” said Michel Detheux, Ph.D., CEO of iTeos Therapeutics. “We plan to move these TDO2 inhibitors forward to clinical stage as a first-in-class cancer immunotherapy.”

iTeos has initiated drug discovery programs on TDO2, and another enzyme expressed in cancer cells named IDO1. These enzymes are believed to contribute significantly to the ability of tumors to resist both natural and therapeutically induced immune attack, including responses elicited by immune checkpoint inhibitors and therapeutic vaccines. Immunotherapy represents a paradigm shift in clinical oncology that promises to revolutionize the management of cancer. Yet not all patients respond equally to such strategies. As such, inhibitors of TDO2 and IDO1 have the potential to significantly increase the response rate to a variety of immunotherapies.

About TDO2 and IDO1

Indoleamine 2,3-dioxygenase (IDO1) and Tryptophan 2,3-dioxygenase (TDO2), key enzymes in tryptophan catabolism, are constitutively expressed in many cancers, which often express one of the two enzymes. Their elevated expression in tumors locally degrades the amino acid tryptophan, blunting tumor surveillance by the immune system and so preventing tumor rejection. Therefore, specific inhibitors for each enzyme might have complementary therapeutic benefits.

About iTeos Therapeutics SA
Based in Gosselies, Belgium, iTeos Therapeutics SA (www.iteostherapeutics.com) is a private biotechnology company targeting metabolism of the tumor microenvironment to develop small-molecule immunomodulators for cancer treatment. Originating from a partnership between Ludwig Cancer Research and de Duve Institute at the Université Catholique de Louvain, iTeos Therapeutics SA raised €9M in April 2012, to build a discovery platform combining expertise in tumor immunology, immunotherapy, drug discovery and development.