

## Press Release

### Preclinical Efficacy Data of Apogenix' HERA-CD27L Published in *Frontiers in Oncology*

#### HERA-CD27L Enhances T Cell Activation and Induces Anti-Tumor Immunity

**Heidelberg, Germany, October 2, 2018** – Apogenix, a biopharmaceutical company developing next generation immuno-oncology therapeutics, announced today that [new data published in the current volume of \*Frontiers in Oncology\*](#)<sup>1</sup> demonstrate the potent anti-tumor efficacy of Apogenix' HERA-CD27L. In contrast to antibodies in development, HERA-CD27L is the first true CD27 receptor agonist with a well-defined mode of action that acts directly on immune cells, thereby enhancing their anti-tumor immunity.

The strong anti-tumor efficacy of HERA-CD27L was demonstrated in two different tumor models. HERA-CD27L treatment boosted specific T cell activity while having no effect on regulatory T cell activity or survival. This is a great advantage over other strategies in development which have been shown to lead to serious immune-related adverse events due to their ill-defined mechanisms of action. HERA-CD27L has also shown significantly enhanced activity compared to a clinical benchmark anti-CD27 antibody. Furthermore, the combination of HERA-CD27L with an anti-PD-1 antibody revealed additive anti-tumor effects, highlighting the importance of both T cell co-stimulation and checkpoint inhibition in anti-tumor immunity.

“Strategies to enhance the anti-tumor immune response have tremendous potential and are considered the future of cancer therapy,” said Harald Fricke, M.D., Chief Medical Officer of Apogenix. “Apogenix has developed the proprietary HERA-ligand technology platform to generate potent tumor necrosis factor superfamily (TNFSF) receptor agonists that play a crucial role in the regulation of the immune response. These agonists overcome the significant limitations of antibody-based approaches by inducing optimal assembly of the TNFSF receptors.”

“CD27 is an important target due to its unique role in both initiating as well as maintaining T cell responses,” Dr. Fricke added. “We are in the process of evaluating the anti-tumor efficacy of additional HERA-ligands in a variety of preclinical studies and look forward to advancing them to the next stage.”

<sup>1</sup> Thiemann M, Richards DM, Heinonen K, Kluge M, Marschall V, Merz C, Redondo Müller M, Schnyder T, Sefrin JP, Sykora J, Fricke H, Gieffers C and Hill O (2018) A Single-Chain-Based Hexavalent CD27 Agonist Enhances T Cell Activation and Induces Anti-Tumor Immunity. *Front. Oncol.* 8:387. doi: 10.3389/fonc.2018.00387

## About Apogenix

Apogenix is a private company developing innovative immuno-oncology therapeutics for the treatment of cancer and other malignant diseases. The Heidelberg, Germany-based company has built a promising pipeline of immuno-oncology drug candidates that target different tumor necrosis factor (TNF) superfamily-dependent signaling pathways, thereby restoring the immune response against tumors. Checkpoint inhibitor asunercept, the company's lead immuno-oncology candidate, is in late-stage clinical development. In 2017, asunercept received PRIME (PRiority MEdicines) designation by the European Medicines Agency (EMA) for the treatment of glioblastoma. Based on its proprietary technology platform for the construction of novel hexavalent TNF superfamily receptor agonists (HERA-ligands), Apogenix develops CD40, CD27, GITR, HVEM, 4-1BB, and OX40 receptor agonists for cancer immunotherapy.

In 2015, asunercept was exclusively licensed to CANbridge Life Sciences for the development and commercialization for the treatment of glioblastoma in China, Macao, Hong Kong, and Taiwan. CANbridge has received approval by the China Food and Drug Administration for a pivotal phase II/III trial with asunercept (CAN008) in glioblastoma in China. The HERA-TRAIL receptor agonist program was partnered with AbbVie in 2014. In 2017, AbbVie initiated a phase I trial with this HERA-TRAIL receptor agonist (ABBV-621) in patients suffering from solid tumors, non-Hodgkins's lymphoma, or acute myeloid leukemia.

## About HERA-Ligands

Apogenix has developed a proprietary technology platform for the construction of novel hexavalent TNF superfamily receptor agonists (HERA-ligands). By stimulating different TNF signaling pathways, these HERA-ligands can increase the anti-tumor immune response. The specific molecular structure of Apogenix' HERA-ligands induces a well-defined clustering of functional TNF receptors on the surface of target immune cells. In contrast to agonistic antibodies, Apogenix' fusion proteins are pure agonists whose potent signaling capacity is independent of secondary Fcγ receptor-mediated cross-linking. In addition, HERA-ligands cause neither antibody-dependent cellular cytotoxicity nor complement-dependent cytotoxicity and exhibit a shorter half-life than antibodies. It is therefore expected that HERA-ligands will cause less side effects in clinical development.

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