



Elpiscience Announces CDE IND Clearance of ES014, a First in Class Anti-CD39xTGF- β Bispecific Antibody for Patients with Advanced Solid Tumors

SHANGHAI & SUZHOU, China & GERMANTOWN, Md., Dec. 23, 2022- Elpiscience Biopharmaceuticals, Inc. (“Elpiscience”), a clinical-stage biopharmaceutical company focused on developing next-generation immunotherapies to benefit cancer patients worldwide, today announced that the Center of Drug Evaluation (CDE) has cleared Elpiscience’s Investigational New Drug Application (IND) for ES014 to initiate a Phase 1 clinical study for patients with advanced solid tumors. ES014 is a first-in-class anti-CD39xTGF- β bispecific antibody (bsAb) that simultaneously targets the CD39-adenosine and TGF- β pathways to synergistically activates T cells for ICB-resistant cancer immunotherapy.

“We are delighted that our IND for ES014 was cleared by CDE. Solid tumors frequently express TGF- β , which suppresses T cell activation and induces CD39 expression, the rate-limiting enzyme in the ATP-adenosine pathway. The anti-CD39 target is designed to selectively direct ES014 to the TME where CD39 expression level is high and the anti-TGF- β activity promotes effector T cell entry into TME, resulting in immune activation and eventually tumor killing, while avoiding or minimizing systemic immunotoxicity,” said Dr. Hongtao Lu, Co-Founder and Chief Scientific Officer of Elpiscience.

ES014’s anti-CD39 activity aims to reverse TME immunosuppression by reducing suppressive adenosine, while maintaining high levels of immune-stimulatory extracellular ATP. The combined removal of immune suppression and immune stimulating effects of ES014 were recently demonstrated in a PD-1 antibody non-responsive *in vivo* animal model where tumor growth was significantly inhibited after treatment.

“ES014 is an innovative product targeting suppressive tumor microenvironment, aiming to convert ‘cold’ tumor into ‘hot’ tumor by simultaneously blocking ATP-adenosine and TGF-beta pathways, the two most important suppressive pathways within TME. In *ex vivo* human cancer 3D studies, ES014 has demonstrated excellent ability in promoting CD8 T cell survival and T cell cytotoxicity towards cancer. We look forward to seeing cancer patients deriving benefit in our Phase 1 study,” said Dr. Steve Chin, Chief Medical Officer of Elpiscience.

About Elpiscience:

Elpiscience is a clinical-stage biopharmaceutical company focused on developing next-generation immunotherapy to benefit cancer patients worldwide. The Company has a robust pipeline of globally innovative cancer immunotherapies covering wide range of oncology targets and multiple proprietary technologies to enable discovery including its Bispecific Macrophage Engager (BiME[®]) antibody platform for solid tumors, human antibody Fab library ElpiSource[™] and H-L interchain disulfide bond engineering BsAb platform Acebody[™].

Founded and managed by a team of biotechnology industry leaders and scientists, Elpiscience is supported by a world-class Scientific Advisory Board and high-quality investors including, Lilly



Asia Ventures, GL Ventures, Hyfinity Investments, Greater Bay Area Homeland Development Fund, CDH, DYEE Capital and Cormorant Asset Management.

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