

September 8, 2022

Company: Chiome Bioscience Inc.

Representative: Shigeru Kobayashi, President & CEO

(Code: 4583, Tokyo Stock Exchange Growth)

Publication of the Results from the Joint Research with CEINGE in generating new Tribodies aiming for Cancer Immunotherapy

The results of the joint research with Ceinge Biotecnologie Avanzate (“Ceinge”) in Italy, “Novel Tri-Specific Tribodies induce strong T Cell Activation and anti-Tumor effects in vitro and in vivo” is published on the Journal of Experimental & Clinical Cancer Research. This study was conducted aiming for generating new Tribody™ molecules for cancer immunotherapy using Chiome’s multi-specific antibody technology. This is the second publication in this collaborative research project.

We have already demonstrated anti-tumor efficacy of Tb535H (Code: CBA-1535, Target Molecule: 5T4 x CD3 x 5T4), in vitro and in vivo. Currently, a phase I clinical study of CBA-1535 as a T Cell Engager for solid tumors is in progress in Japan. In this publication, we introduced an ‘immune checkpoint inhibitor’ arm onto Tb535H and constructed a tribodies. These tribodies demonstrated stronger anti-tumor efficacy than Tb535H. Among them, 53L10 type Tribody™ (5T4 x CD3 x PD-L1) exhibited the strongest anti-tumor efficacy. This article discussed that the tribody technology could offer useful therapeutic applications, particularly in patients who are resistant to conventional cancer therapy, and contribute cost-effective medical strategy by building three binding sites in one molecule in terms of the production and medical costs.

We have filed a patent application in June 2022 based on this collaborative research project. Beyond that, we will accelerate the research and development of 53L10 type Tribody™ as one of our therapeutic pipelines.

➤ Publication

Title : Novel Tri-Specific Tribodies induce strong T Cell Activation and anti-Tumor effects in vitro and in vivo

Authors : Margherita Passariello, Asami Yoshioka, Kota Takahashi, Shu-ichi Hashimoto, Toshikazu Inoue, Koji Nakamura and Claudia De Lorenzo

Journal : Journal of Experimental & Clinical Cancer Research
Passariello et al. J Exp Clin Cancer Res (2022) 41:269
<https://doi.org/10.1186/s13046-022-02474-3>

<About Ceinge-Biotecnologie Avanzate>

Ceinge is a non-profit consortium research organization in Naples, with entirely public capital, founded in 1983. Ceinge operates in the field of molecular biology and advanced biotechnology applied to Human Health. It is an excellence in Italy and abroad for the Research and Diagnostics of genetic diseases .

<53L10 type Tribody™ (PTRY)>

53L10 type Tribody™ (PTRY) is designed cancer therapeutic antibody consisting of three antigen binding sites: solid tumor expressing 5T4 and T-cell engager CD3, and immune checkpoint inhibitor PD-L1.

Our previous joint publication with Ceinge (Passariello, M. *et al.* Int. J. Mol. Sci. 2022, 23(7): 3466, [20220324170057831s.pdf \(xj-storage.jp\)](#)) had demonstrated the functionality of immune checkpoint inhibitor on Tribody™ format. An incorporation of immune checkpoint inhibitor onto our promising tribody, CBA-1535, could be expected to have further enhanced immune-modulatory effect.

【Inquiries】

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