Organization

Name of Organization / 会社名
EUTILEX Co., Ltd
URL
www.eutilex.com
Brief Descriptions of Organization / 会社概要
EUTILEX is a clinical stage Korean biotech company focused on developing novel immuno-oncology therapies using its proprietary costimulatory platform to treat cancer patients. Dr. Byoung-Se Kwon is the founder of EUTILEX who established the concept of the "inducible co-stimulation" by discovering 4-1BB and AITR. In Korea, EUTILEX has developed the Eutilex T cell therapy, entering now Phase 2 clinical trials against various cancers. Recently, we developed the manufacturing process of multi-antigen targeted T cell therapies which are able to kill heterogeneous tumor targets more effectively than single antigen specific T cells. EUTILEX is also developing CAR Ts based on its next-generation technology. The malignancy variant receptor CAR T program, for relapsed and refractory hematologic malignancy, targets human leukocyte antigen-DR (HLA-DR), which is highly overexpressed on malignant B cells, rather than CD19. Other CAR T approaches in development include a CAR T designed specifically for treating solid tumors and a universal, allogeneic CAR T that will be used as an 'off-the-shelf 'cancer therapy. Eutilex is developing its immuno-oncology pipeline in collaboration with a number of Korean and global biotechnology companies and research institutes and is looking to expand its network of partnerships.

Oral Presentation

Title of Presentation / 講演タイトル
EUTILEX CAR-Ts
Abstract / 要旨
Chimeric antigen receptor (CAR) T cell therapy is an effective way to treat specific cancers. CAR is generally designed to recognize highly expressed antigen in tumor cells. The affinity of CAR is very important in this strategy, and the optimized affinity is beneficial in reducing adverse effects while maintaining the therapeutic effect. We have developed MVR clones with unique binding characteristics that bind strongly to B-lymphocyte cell lines. Interestingly MVR specifically recognizes the highly polymorphic HLA-DR complex and its binding capacity differs depending on the HLA-DRB1 allele type. We found that MVR CAR-T cells kill Epstein-Barr virus-transformed B cells with increased HLA-DR expression. Mouse-derived antibodies are limited in their use ad anti-cancer immunotherapeutic agents due to their immunogenicity. Humanized antibodies can overcome this problem and can be used as promising alternative therapies. Therefore, we humanized the MVR antibody and used it to confirm the anticancer effect in the xenograft model. These results suggest that humanized MVR CAR-T cell can be used as an effective CAR-T therapy with reduced adverse effects.
Objectives and/or Motives / 目的
We aim to raise awareness of the EUTILEX technology including 4-1BB CTL, CAR-Ts among the Japanese societies, industries, government, etc. and look for business opportunities in Japan. We look for local partners who can codevelop EUTILEX CAR Ts in Japan or invest in our company.