CAMYO-01

Advancing mRNA Cancer Vaccines for Colorectal Cancer

INTRODUCTION

Our flagship mRNA-based lead program, CAMYO-01, is an innovative off-the-shelf cancer vaccine targeting colorectal cancer-specific **camyotopes™**. Camyotopes represent a unique class of tumor-associated antigens derived from the **dark genome**, an uncharted region of the genetic landscape that harbors previously unexplored therapeutic targets. CAMYO-01 offers **high coverage** and a **lower risk of immune escape**, providing a **competitive advantage** over other similar immunotherapies.

Following successful target discovery, prioritization, and validation at the epitope level, we have recently achieved several important **preclinical milestones**, including demonstration of **effective T-cell-mediated tumor cell killing** and confirmation of **efficient mRNA construct translation**. The program is now focusing on selecting the best mRNA construct to advance toward drug product formulation studies for clinical phase development.

PRECLINICAL VALIDATION

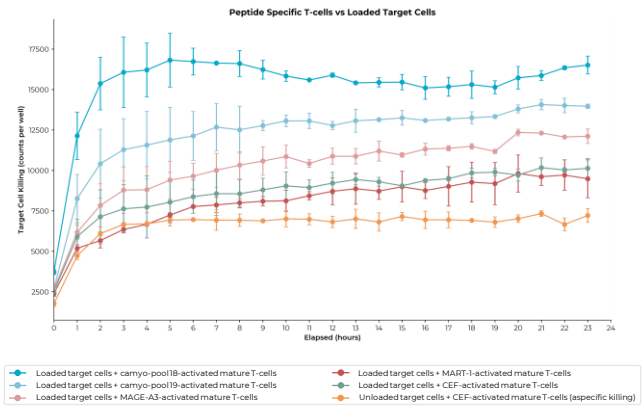
TUMOR KILLING ASSAY

Experimental set-up

Camyotopes were compared to MAGE-A3 and MART-1 for their ability to induce T-cell-mediated target-specific tumor cell killing.

Results

Camyo-activated T-cells (in dark/light blue) demonstrated **superior target cell killing efficacy** compared to MAGE-A3- and MART-1-activated T-cells (in pink/red).



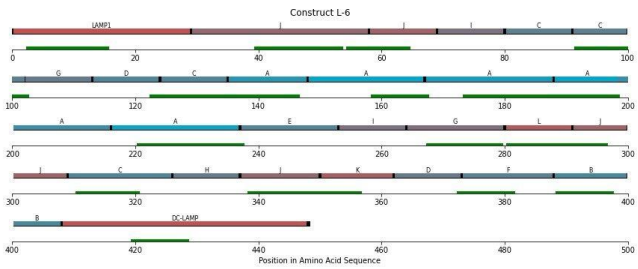
mRNA TRANSLATION

Experimental set-up

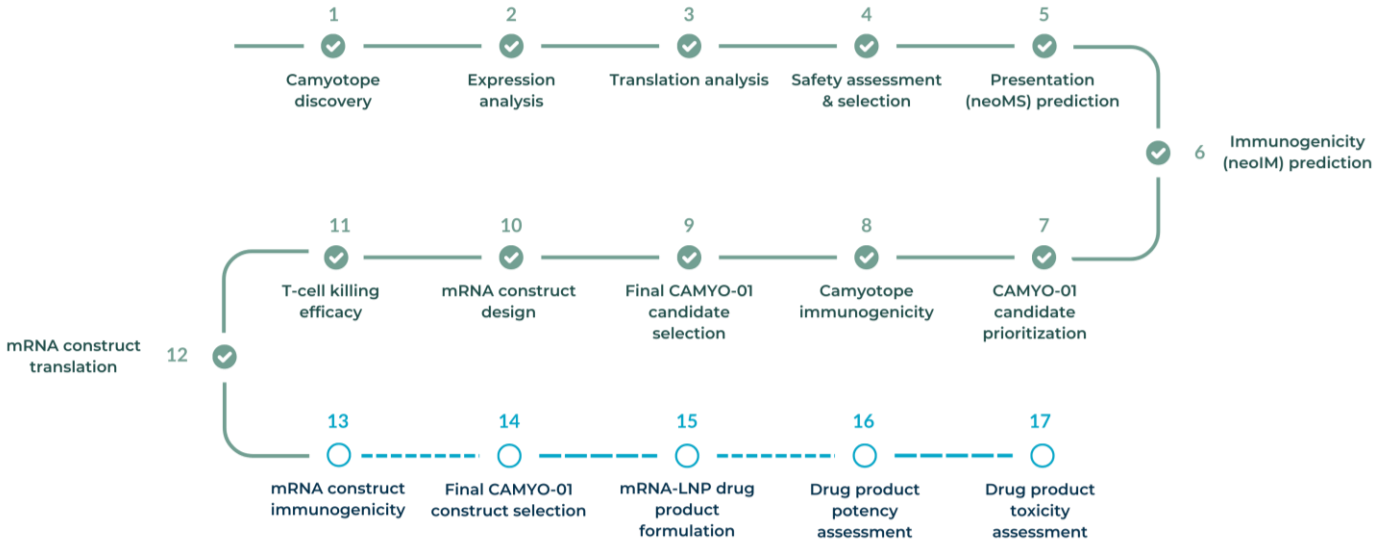
Extracted PBMCs from healthy donor blood were electroporated with 2 different CAMYO-01-encoding constructs. After cell lysis and MHC-I pulldown, epitope identification was performed via LC-MS/MS.

Results

Several hits for each construct were found among which the last epitope, indicating **full translation** of the constructs. Furthermore, MAPPS hits covered approximately 50% of the sequence (excl. LAMP domains) indicated by the green bars.



MILESTONES



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