**INTRODUCTION**

- ATOR-4066 is a preclinical stage bispecific antibody targeting CD40 and CEACAM5, developed using Alligator’s novel Neo-X-Prime™ platform, which induces neoantigen-specific T-cell response by activating antigen-presenting cells (APCs).
- ATOR-4066 binds to CD40 on dendritic cells (DCs) and CEACAM5, a tumor-associated antigen (TAA), expressed on tumor cells and on tumor-derived material (such as exosomes or tumor debris containing neoantigens), leading to tumor-directed activation of the DCs, enhanced uptake of tumor-derived material, cross-presentation of neoantigen, priming of neoantigen-specific T cells and killing of tumor cells.
- We have previously demonstrated potent anti-tumor efficacy of ATOR-4066 treatment in vivo.
- Moreover, ATOR-4066 induces strong activation of CD40 expressing cells in vitro using CEACAM5 expressing tumor material from patients.
- Here we present further preclinical data strengthening the potential of ATOR-4066 as an anti-tumor treatment both as a stand-alone therapy but also in combination with anti-PD-1 treatment.

**RESULTS**

CEACAM5-conditional activation of primary human B cells and monocyte-derived DCs by ATOR-4066

Strong anti-tumor efficacy and induction of immunological memory after ATOR-4066 treatment in vivo

Experimental setup in human CD40 transgenic mice

**MODE OF ACTION**

Ma of ATOR-4066:
- CEACAM5-conditional CD40 activation of DCs and macrophages
- Novel mechanism for cross-priming of neoantigen specific T cells through enhanced DC update of CEACAM5-expressing tumor-derived material

Activation of tumor-infiltrating immune cells in human primary gastric cancer tumor samples by ATOR-4066

Activation (CD8) upregulation of CD40 expressing cell populations

**SUMMARY AND CONCLUSION**

- We have demonstrated that the CD40/CEACAM5 bispecific antibody ATOR-4066 induces:
  - Efficient, CEACAM5-conditional CD40 activation of human primary B cells and macrophages
  - Co-localization of CEACAM5-expressing tumor debris and CD40-expressing APCs
- Activation of tumor-infiltrating immune cells in patient-derived dissociated tumor samples from CEACAM5-gastric cancer patients
- Strong anti-tumor efficacy and induction of immunological memory, also in large tumors with heterogenous CEACAM5 expression
- Capacity to reactivate exhausted CD4 and CD8 T cells in vitro
- Enhanced effect to reactivate exhausted T cells in combination with anti-PD-1

Taken together, these data show the ability of ATOR-4066 to remodel the immune microenvironment and activate tumor-infiltrating immune cells from primary human tumors expressing CEACAM5, demonstrating the promise of this new candidate drug and strongly supports further development towards the clinic.