Galectin-3 synergizes with CD47 to Suppress Phagocytosis and T cell immunity in Peritoneal Metastases of Gastric Adenocarcinoma



A. Bulk RNA-seq analysis on Peritoneal metastasis (PC) specimen using a curated panel of immune checkpoint and "don't eat me" gene. B. Bulk RNA-seq analysis on Stage IV of TCGA STAD (n=41) cohort using a notable panel of immune checkpoint and "don't eat me" gene. C. Expression profile of "don't eat me" genes *CD47*, *SIRPA*, *CD274*, *PDCD1*, *LILRB1* and *LILRB2* were shown in dot-plot with normalized expression levels of indicated genes from scRNAseq data (n=20). D. CD47 and PD-L1 were detected on 6 representative PC ascites samples, as examined by CyTOF using antibodies against notable cell type markers, and CD47 and PD-L1. E. CD47 expression (right) on EpCAM⁺ tumor cells detected on PC samples between long-term survivor (>12 month) and short-term survivor (<12 month) (n=42), as assessed by flow cytometry . F. Normalized expression levels of *CD47* and *SIRPA* in tumor cluster and myeloid cluster between long-term survivors and short-term survivors was shown as violin plots G. *The* overall survival of CD47 in complete responders (CR) GAC patients from TCGA dataset

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A. Correlation between *LGALS3* and *CD47* in short-term survivor tumor clusters from scRNA-seq data. **B**. Gal-3 and CD47 staining on PC samples (n=51). **C**. Representative immunohistology staining of Gal-3 and CD47 images in TMA samples (n=210)

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A. Representative bioluminescence images over 22 days (left) and quantification (right) of engrafted with KP-Luc2 cell in C57BL/6 mice (n = 5 mice per group) in the indicated treatment. **B**. Representative contour plots and quantification of phagocytosis at the endpoint day 22, as examined by flow cytometry . **C**. Schematic illustration of the impact of Gal-3 and CD47 in phagocytosis and immune regulation in GAC in TME