

Project: CD47 Blockade on Tumor-Associated Macrophage and Neutrophil Interaction in Hepatocellular Carcinoma

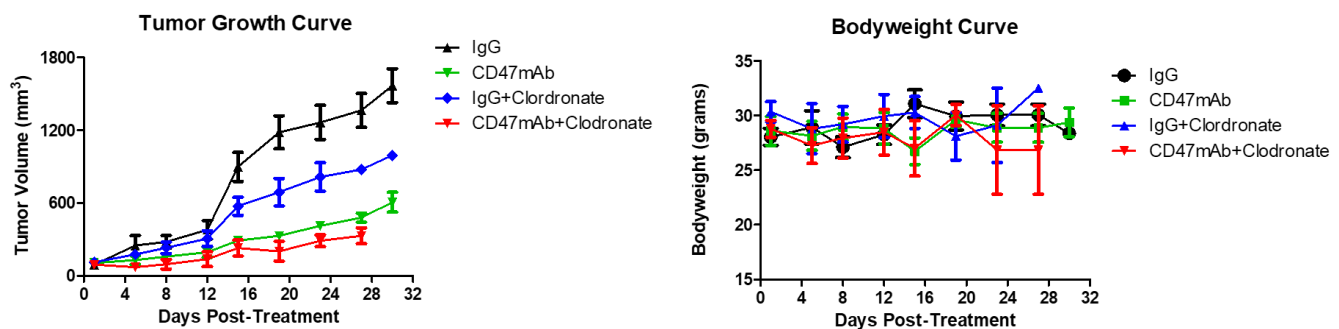
2019.04-2019.08 Research Progress:

Macrophage depletion in HuH-7 tumor-bearing NSG mice by clodronate. Followed by CD47 mAb (experiment group) or isotopic IgG (control group) treatment for 4 weeks. Animals were sacrificed and tumor were explanted.

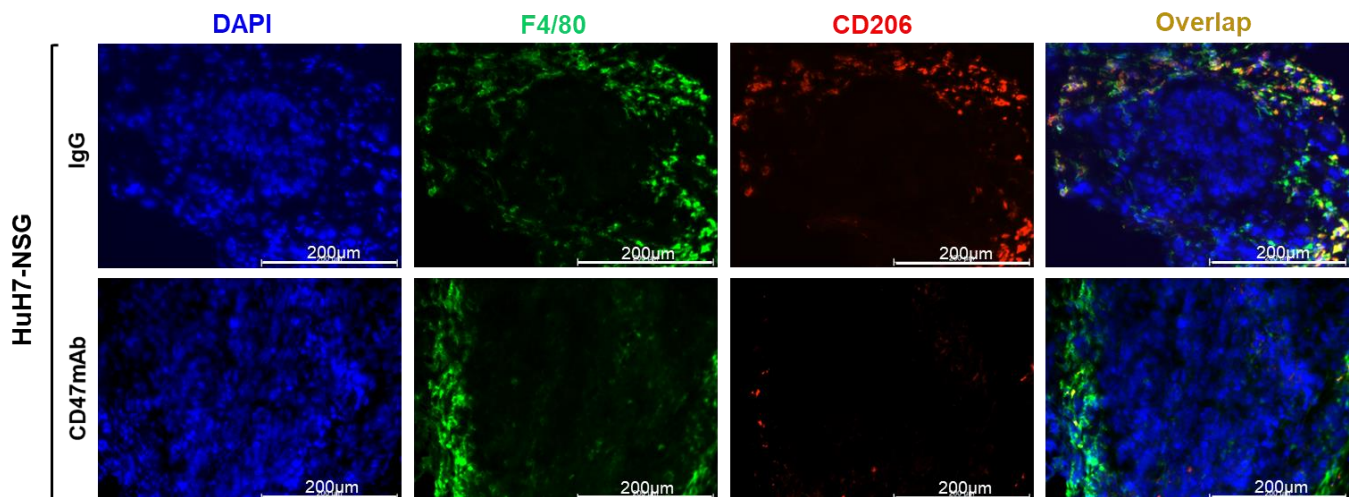
Challenge: Early deaths occur in clodronate-treated mice, suggesting poor tolerance of clodronate toxicity in certain individual mice.

Preliminary data:

Tumor growths in all groups were documented. Animals not treated with clodronate bear larger tumors comparing to clodronate-treated counterparts (either in IgG control or CD47mAb group). CD47mAb groups (with or without clodronate treatment) showed significant tumor growth suppression comparing to IgG control groups. In mice survived clodronate treatment, bodyweight did not display significant difference between groups.



Immunofluorescence assays showing decreased CD206+ macrophage in CD47mAb treated mice (without macrophage depletion by clodronate)



Pending data: immunofluorescence results of clodronate-treated groups.

2019.09-2019.11 Planned experiments:

1. Additional animal experiments with clodronate treatment to acquire more data.
2. *In vitro* experiment to address HuH7 & macrophage interactions.

Anticipated results: *in situ* CD47 blockade in HCC tumor-macrophage interaction results in polarized macrophage activation.

Manuscript in preparation. Abstract draft completed and will be ready soon for submission to 2020 AHPBA annual meeting.