IgM has a better relative distribution in inflammation sites and tumor tissues than IgG

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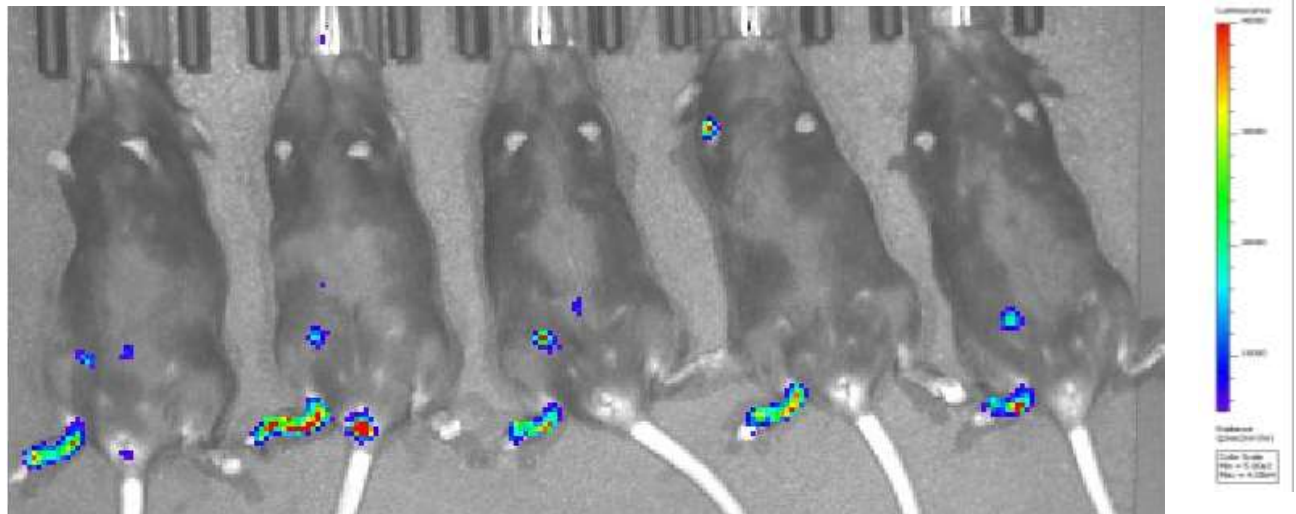Abdulaziz Aldayel, Ph.D.

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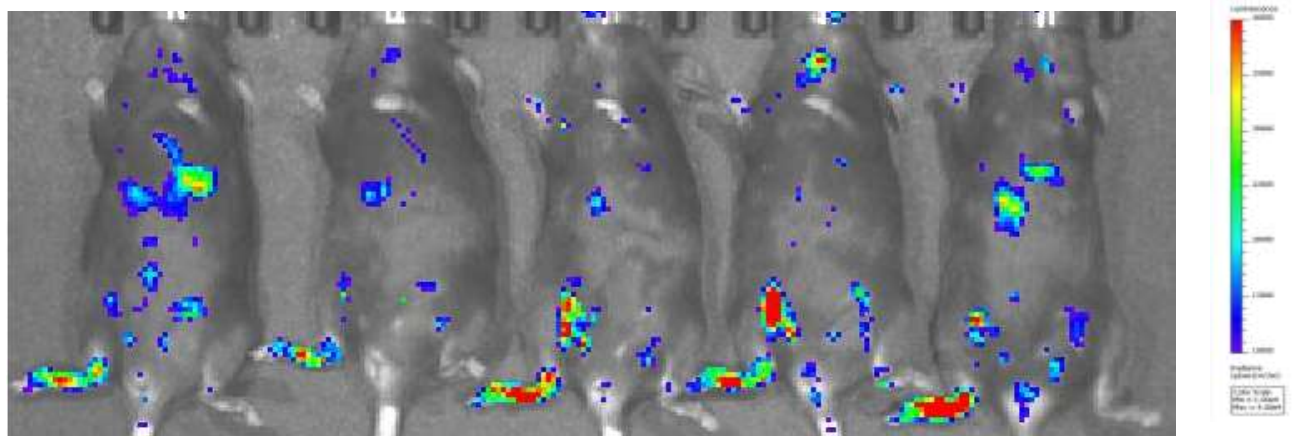Zhengrong Cui, Ph.D.

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Supp. Figure. S1

A

B

Supp. Figure. S1. *In vivo* **longitudinal bioluminescence imaging of acute and chronic inflammation in the right rear foot pad, but not the left rear foot pad, of mice.** We induced local tissue inflammation by s.c. injection of 50 µg LPS. (A) Mice were given an i.p. injection of luminol (100 mg/kg) and imaged on day 3. (B) Mice were given an i.p. injection of lucigenin (25 mg/kg) and imaged on day 8.

Supp. Table. S1. Selected statisrical parameters of IgG and IgM in mice with acute and chronic inflammation. Tukey-Kramer adjustment was used to calculate the significant distribution of IgG and IgM in inflamed vs. control feet over time. (A) IgG and (B) IgM distribution to mice feet within acute inflammation. (C) IgG and (D) IgM distribution to mice feet within chronic inflammation. (n=5-6)

A

Type 3 tests of fixed effects IgG acute inflammation			
Effect	Num DF	Den DF	F Value	Pr > F
Time	3	12	5.86	0.0106
Tissue	1	4	0.05	0.8263
Time*Tissue	3	12	0.12	0.9467
Inflamed vs. Control, Tukey-Kramer , adjusted P ≤ 0.8263				

B

| Type 3 tests of fixed effects IgM acute inflammation			
Effect	Num DF	Den DF	F Value	Pr > F
Time	3	15	18.46	<.0001
Tissue	1	5	13.03	0.0154
Time*Tissue	3	15	1.79	0.1931
Inflamed vs. Control, Tukey-Kramer , adjusted P ≤ 0.0154				

C

| Type 3 tests of fixed effects IgG chronic inflammation			
Effect	Num DF	Den DF	F Value	Pr > F
Time	3	30	8.34	0.0003
Tissue	1	10	0.08	0.7857
Time*Tissue	3	30	0.26	0.8522
Inflamed vs. Control, Tukey-Kramer , adjusted P ≤ 0.7857				

D

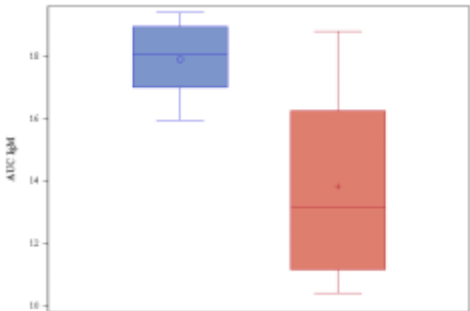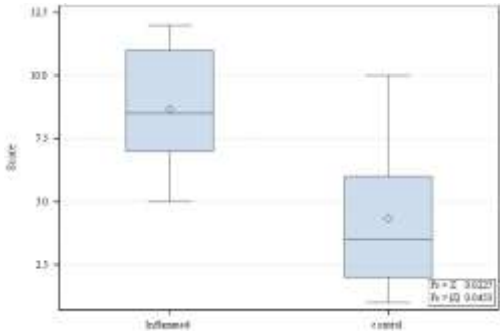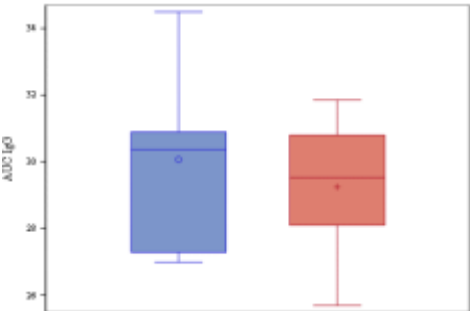| Type 3 tests of fixed effects IgM chronic inflammation			
Effect	Num DF	Den DF	F Value	Pr > F
Time	3	30	14.44	<.0001
Tissue	1	10	18.82	0.0015
Time*Tissue	3	30	0.33	0.8049
Inflamed vs. Control, Tukey-Kramer , adjusted P ≤ 0.0015				

Supp. Figure. S2
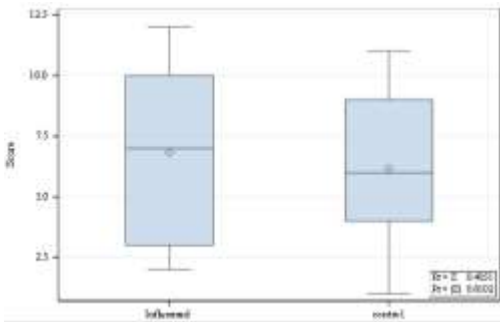
A
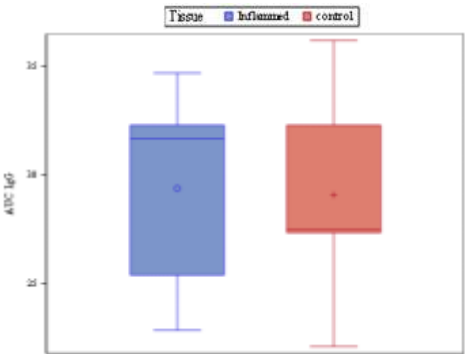
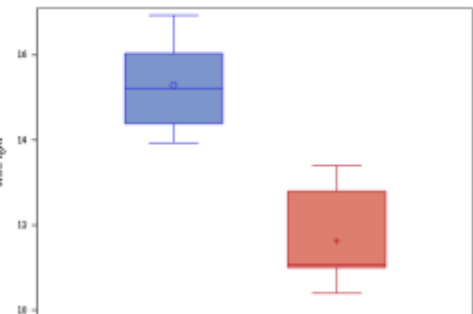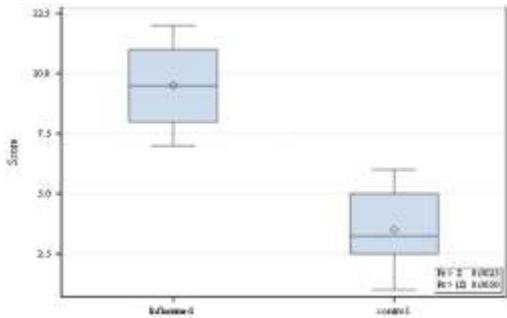**B**
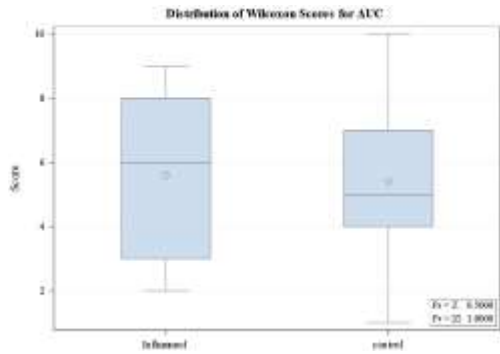
C

D

E

F

G

H

Supp. Figure. S2. **Area under the curve (AUC) values and Wilcoxon Scores of IgG and IgM Classified by inflamed vs. control foot in mice with acute and chronic inflammation.** (A) AUC and (B) Wilcoxon Scores IgG distribution to mice feet within acute inflammation, (C) AUC and (D) Wilcoxon Scores IgM distribution to mice feet within acute inflammation. (E) AUC and (F) Wilcoxon Scores IgG distribution to mice feet within chronic inflammation, (g) AUC and (h) Wilcoxon Scores IgM distribution to mice feet within chronic inflammation. Data are mean ± S.E.M. (n=5-6).