Suplemmentary Information

15d-PGJ$_2$-loaded nanocapsules ameliorate experimental gout arthritis by reducing pain and inflammation in a PPAR-gamma-sensitive manner in mice

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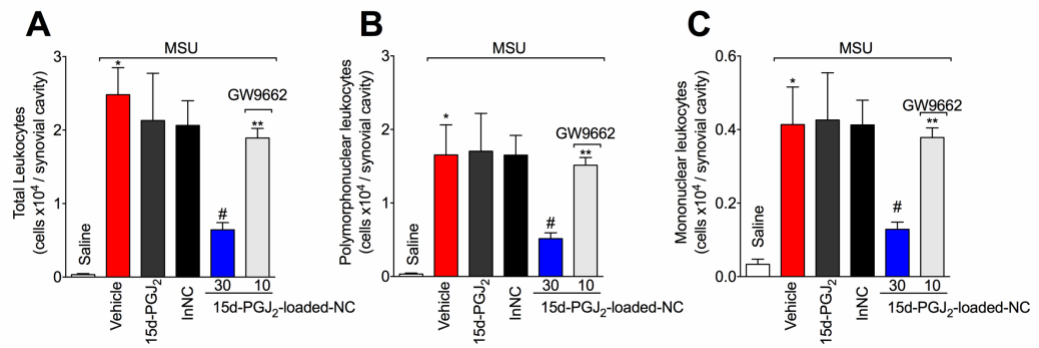
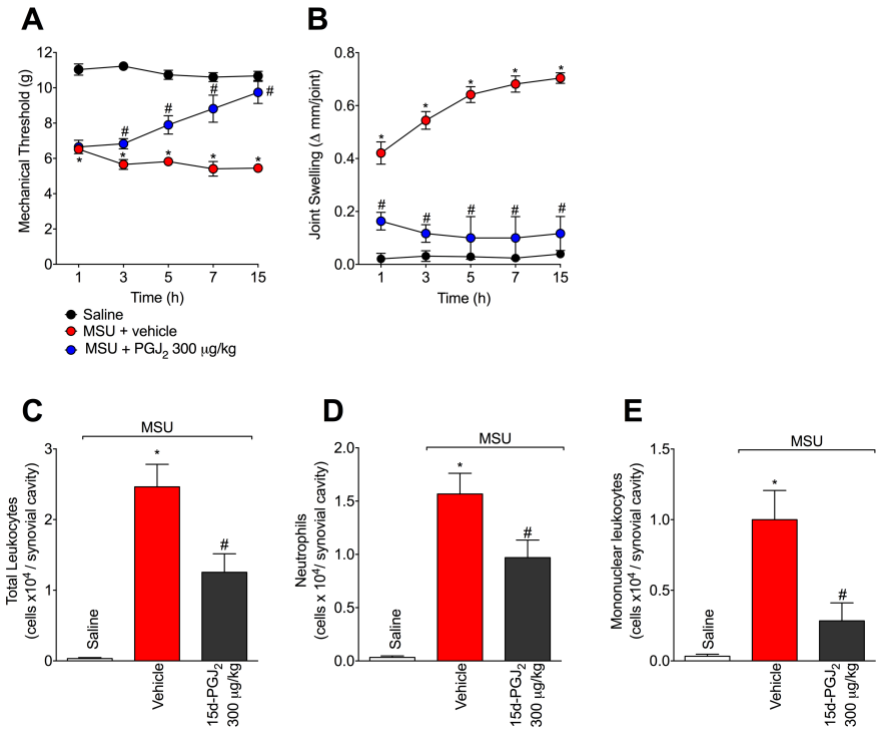
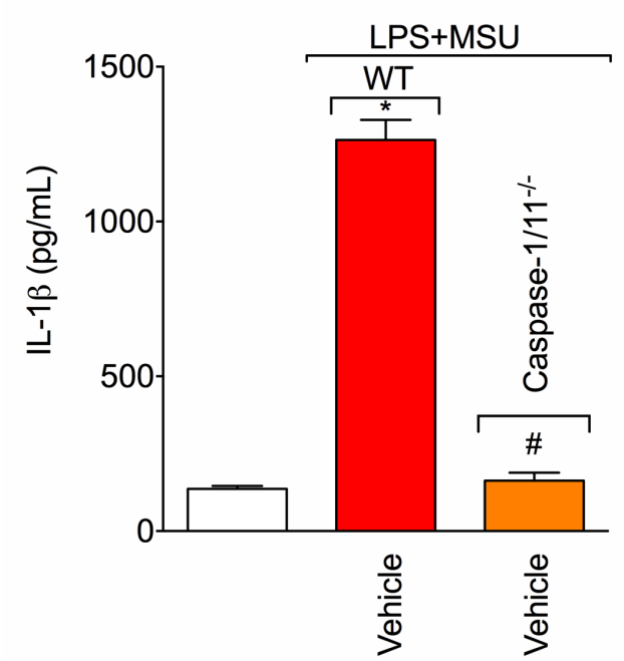
Supplementary Figures



Supplementary Figure 1 (SF1). 15d-PGJ$_2$-loaded NC reduce MSU-induced leukocyte recruitment 7h post-stimulus in a PPAR-γ-sensitive manner. Seven hours after MSU stimulus, the number of total leukocytes (**A**), neutrophils (**B**) and mononuclear cells (**C**) were determined. Results are expressed as mean ± SEM, n = 6, two independent experiments (*p < 0.05 vs. control group; #p < 0.05 vs. vehicle mg/kg group, **p<0.05 vs 15d-PGJ$_2$-loaded NC).



Supplementary Figure 2 (SF2). Higher dose of non-encapsulated 15d-PGJ$_2$ inhibits MSU-induced mechanical hyperalgesia and joint swelling. Mice were treated with 15d-PGJ$_2$ (300 μg/kg) or vehicle 30 minutes before MSU (100 μg/10 μl/knee) stimulus in the femur-tibial joint of mice. Mechanical hyperalgesia (**A**) and joint swelling (**B**) were evaluated 1, 3, 5, 7, and 15h after MSU injection and 15h after MSU injection knee joints were collected to determine total leukocytes (**C**), neutrophil (**D**) and mononuclear cell counts using Neubauer chamber and stained slices (*$p < 0.05$ vs. control group; #$p < 0.05$ vs. vehicle group two-way ANOVA followed by Tukey's post-test).



Supplementary Figure 3 (SF3). MSU-induced IL-1β maturation *in vitro* depends on caspase-1. IL-1β concentration (ELISA) in WT and caspase-1/11$^{-/-}$ BMDM culture supernatants primed with LPS (500 ng/ml, i.e. signal 1) for 3h and stimulated with MSU (450 μg/ml, *i.e.* signal 2) followed by 5h incubation. Results are expressed as mean ± SEM, n = 6 wells per group per experiment, two independent experiments (*$p < 0.05$ vs. control group; #$p < 0.05$ vs. WT vehicle group, one-way ANOVA followed by Tukey's post-test).