

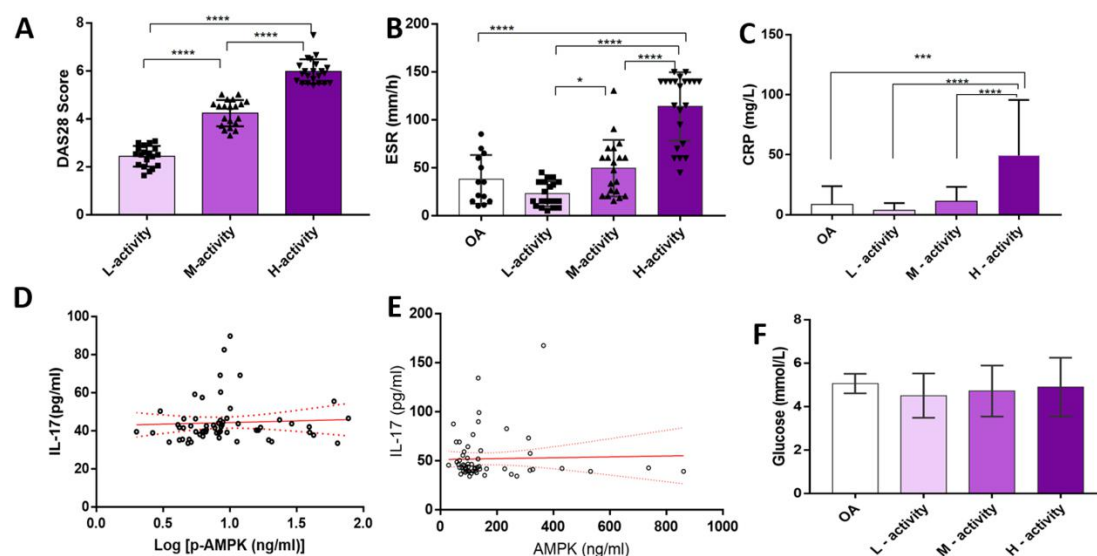
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**Supplemental Information**

**Metformin, an AMPK Activator, Inhibits Activation of  
FLSs but Promotes HAPLN1 Secretion**

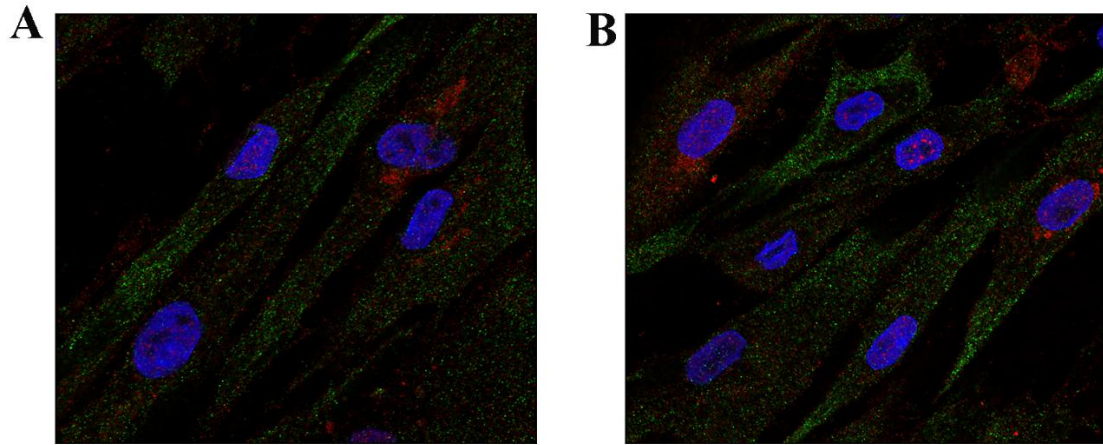
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## Supplemental figures and legends



**Figure S1. Disease activity of RA as indicated by DAS28-ESR, ESR and CRP levels.**

DAS28-ESR score was used to define the disease activity in RA patients and classified as low (L,  $n = 19$ ), mild (M,  $n = 20$ ) and highly (H,  $n = 22$ ) active cases. (B) ESR values in OA ( $n = 20$ ) patients reached  $37.85 \pm 15.16$  mm/h and in L-active RA  $22.68 \pm 10.01$  mm/h and M-active RA  $49.45 \pm 29.77$  mm/h, which were significantly lower than H-active RA patients ( $113.9 \pm 76.02$  mm/h); ESR in L-active RA was lower than patients with M-active RA. (C) CRP in patients with OA, inactive RA, and moderate active RA were  $8.67 \pm 7.09$  mg/L,  $3.61 \pm 5.06$  mg/L, and  $11.61 \pm 8.68$  mg/L respectively, which were remarkably lower than the values from high active RA patients ( $47.26 \pm 8.49$  mg/L). (D and E) No statistical correlation was observed between log (p-AMPK- $\alpha$  1) and AMPK- $\alpha$  1 with IL-17 levels. (F) No statistical difference in blood glucose levels were noted between OA and RA patients having different disease activities. (\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ , \*\*\*\* $p < 0.0001$ ).



**Figure S2. Expression of AMPK- $\alpha$ 1 in the cytoplasm of FLS from OA and RA patients.**

Immunofluorescence image of AMPK- $\alpha$ 1 expressed in (A) OA-FLS and (B) RA-FLS. Vimentin, AMPK- $\alpha$ 1 and nuclei were labelled in red, green and blue colors.