Author's response to reviews

**Title:** Serum amyloid A (SAA) induces pentraxin 3 (PTX3) production in rheumatoid synoviocytes

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**Version:** 2  **Date:** 7 July 2011

Author's response to reviews:

Reviewer's report

Title: Serum amyloid A (SAA) induces pentraxin 3 (PTX3) production in rheumatoid synoviocytes

Version: 1  Date: 13 June 2011

Reviewer number: 2

Reviewer's report:

There are some misspelling:

Page 5 line 14; PTAX3 should be PTX3

Figure 1A; SAA (microgram/ml) should be SAA (microgram/ml)

Major Compulsory Revisions

SAA concentrations which stimulated maximum PTX3 production was 1.0 microgram/ml and it is a normal range or a background level. When 5 microgram/ml of SAA was used, though that concentration is still a background level, the PTX3 production even declined. In patients with active synovitis, SAA level in blood usually reaches several hundreds microgram/ml. Thus, the authors showed PTX3 production by normal level SAA in rheumatoid and OA synovium
but did not demonstrate the role in inflammatory rheumatoid synovium. I suggest that the authors should change discussion and conclusion or that they should add some experiments in which the role of inflammatory level SAA to PTX3 production will be clearly shown.

We appreciate your important comments. According to your precise comments, we examined the effects of SAA, under the physiological levels seen in RA patients.

We presented these data in the revised manuscript and added the following description.

SAA-mediated PTX3 induction reached a plateau at physiological concentrations of SAA (2-10µg/ml). Circulating SAA is associated with apolipoproteins, such as HDL, which possess some anti-inflammatory properties as described previously [19]. Therefore, there seems to be some differences in pro-inflammatory properties between free SAA and HDL-bound SAA.

Minor Essential Revisions
Page 5 line14; PTAX3 should be PTX3
Figure 1A; SAA (microgram/ml) should be SAA (microgram/ml)

We revised these mistakes in the revised manuscript.