Reviewer’s report

Title: The role of prostaglandin E2 (PGE2) in toll-like receptor 4 (TLR4)-mediated colitis-associated neoplasia

Version: 1 Date: 24 February 2010

Reviewer: Jin-Kyung Kim

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The authors claim that their work demonstrated that exogenous PGE2 administration increase colitis-associated tumorigenesis via activation of EGFR signaling pathway and dysregulation of PGE2 synthesis in TLR4 KO mice.

I have a few minor concerns that need to be addressed.

Fig. 2B,
Size-bar should be indicated.

Fig. 3C,
The levels of 15d-PGJ2 of colon in experimental groups were shown by bar-graph. If the PGE2 levels were shown same pattern (not just explain in the text), the audience easily understand that PGE2 administration affects the balance between 15d-PGJ2 and PGE2.

Could the author explain the reason(s) how PGE2 administration increased the level of 15d-PGJ2 in colon.

Fig. 4A,
Magnification and size-bar should be indicated.

Fig. 5A,
The author showed the mRNA levels of AR to explain PGE2 regulate EGFR-signaling pathway in TLR4 KO mice. Based on their previous work (2007), they showed the protein levels of AR. How about the protein levels in the present study?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.