Reviewer's report

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

Version: 3 Date: 10 May 2010

Reviewer: Naofumi Mukaida

Reviewer's report:

It is widely known that COX-2 is downstream of TLR-4 and that COX-2-derived prostaglandin (PG) E2 plays a central role in colon carcinogenesis. The authors speculated that exogenous PGE2 disturb the balance between prostaglandin E2 and 15d-PGJ2, thereby accelerating colon carcinogenesis, but they failed to provide any experimental evidence. Moreover, the authors demonstrated that PGE2 could increase the amount of AR and phosphorylation of EGF receptor without any effects on proliferation and apoptosis of colon epithelial cells. In conclusion, the authors failed to provide any definitive mechanistic insights on how PGE2 can promote colon carcinogenesis, even in this revised text.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.