**Reviewer's report**

**Title:** Ulcerative colitis and irritable bowel patients exhibit distinct abnormalities of the gut microbiota

**Version:** 2  **Date:** 20 May 2010

**Reviewer:** S H Duncan

**Reviewer's report:**

The revised version of the manuscript by Noor et al is much improved and therefore I would now recommend acceptance of this version following further minor revisions.

Abstract: In the abstract it is stated that the number of subjects (n=46) differs from that in the materials and methods section (n=50).

End of background section: The final sentence should be modified as a reduction in microbial diversity in the disease state may be detrimental but loss of Bacteroides compared to the control may not protective. The authors need to consider whether or not their data illustrates changes in microbial composition reflects the cause or consequence of disease.

Conclusion section: Again I would recommend that the authors should not over claim the point that Bacteroides may be protective given that several other studies have demonstrated that this is not the case but that instead their data reveals a loss of diversity in the disease state. This loss of diversity may have a number of significant consequences as, for example, dysbiosis may impact on microbe-microbe interaction, microbe-host interactions and changes in microbial metabolite profiles.

General: There are still a number of typographical errors in the manuscript that needs to be corrected.