Reviewer's report

**Title:** MUTYH-associated colorectal carcinomas display histopathological similarities to microsatellite unstable carcinomas

**Version:** 1  **Date:** 24 March 2009

**Reviewer:** Darryl Shibata

**Reviewer's report:**

**Major Compulsory Revisions**

The paper by Nielsen et al studied a large group (N=38) of unique colorectal cancers---MAP associated cancers. These cancers are relatively rare, and therefore the details of their characteristics are of great interest. The primary finding is that MAP cancers have characteristics similar to MSI-H CRC. This is interesting because both MSI-H and MAP tumors have underlying defects in DNA repair (MMR for MSI, and BER for MAP).

The primary weakness of the manuscript is the somewhat confused nature of its presentation. It would be helpful to have a Table in the manuscript (rather than the SOM) that summarizes in a simple manner the major differences/similarities between MSI-H, MAP, and CIN tumors with respect to a few critical clinical parameters (such as average age, stage distribution, basic histology, mutation frequencies (APC, KRAS)). I believe such a Table would make it easier for a reader to see that the MAP cancers more resemble MSI-H tumors.

**Minor Essential Revisions**

Prior studies (by the same authors) have demonstrated that certain MUTYH mutations are associated with different clinical presentations (Gastroenterology Volume 136, Issue 2, February 2009, Pages 471-476). Are there associations of specific MUTYH germline mutations with some of the parameters measured in this new study?

**Discretionary Revisions**

The first sentence of the last paragraph on page 3 is unclear.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

I declare that I have no competing interests