Reviewer's report

Title: Polymorphisms in NFkB, PXR, LXR, interaction with meat, tobacco smoking, NSAID use, and risk of colorectal cancer in a prospective study of Danes

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Reviewer: Yuanyuan Lu

Reviewer's report:

This manuscript provided valuable information about polymorphisms of transcription factors and lifestyle in association with colon cancer risk. However, before it is found acceptable, the authors should consider the following points:

Major:
1. How did the sub-cohort sample come from the cohort (57053 persons)? Please describe the detailed random method or step. Author should provide a flow chart about subjects selection of this cohort study.
2. In “Lifestyle variables” author defined the smoking intensity, but in “statistical analysis” smoking status was used which had not been mentioned before. Please explain why you chose smoking status instead of smoking intensity as baseline characteristic?
3. The conclusion “Del-allele carriers of NFkB -94ins/del were at 3% higher risk pr 25 g meat/day (CI: 0.97-1.08) whereas among homozygous carriers of the wild type ins-allele, the association was in the opposite direction (IRR pr 25g/day: 0.96, CI: 0.90-1.04, p for interaction= 0.03)” was not exact, though p for interaction= 0.03, IRR pr 25g/day: 0.96, CI: 0.90-1.04 was not significant.

Minor:
1. Interaction about NSAID use and the studied genotype NFkB -94ins/del should be discussed in the discussion part because of the significant CI (1.05-2.32).

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

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests.