Reviewer's report

Title: Identification and genotyping of bacteria from paired vaginal and rectal samples from women at 35 weeks of gestation indicates similarity between vaginal and rectal microflora

Version: 2 Date: 31 August 2009

Reviewer: SVETLA DANOVA

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Minor Essential Revisions

Comments to the Authors

1. The authors present a simultaneous study "Identification and genotyping of vaginal and rectal bacterial microflora". They combine a phenotypic method (the modified Gram procedure as first step to categorize the isolates), with tDNA-PCR analyses. Thus, an original and useful polyphasic approach was applied. The parallel species identification is 50% of the overall work and has a significant fundamental and scientific sound. Despite of careful edition is not easy to understand how been achieved the Lactobacillus species affiliation (in Materials and methods and in Results). Examples – species L. inners- it's the only species that no growth on MRS agar and in addition no data for tDNA-PCR protocol for this species in added new ref 18.

I kindly advice the authors to fulfill the part Identification of isolates (page 6-Mat&Methods) with brief details of identification procedure for new reported species at least (different from about cited in ref 18). It will add a methodological value of the work and interest for other researchers.

2. page 9, lines 194: "Using tDNA-PCR, 844 could be identified" Please clearly state how much isolates have been subjected to tDNA-PCR procedure and replace this phrase.

3. The authors discuss the presence of L. crispatus:

   page 13-line 277: “Taking into account vaginal and rectal colonization by more than one Lactobacillus species, 18 women (13.6%) were colonized by both L. crispatus…….”; page 12- line280: “The four species predominant in the vagina, as established in this study, i.e. L. crispatus, L. jensenii, L. gasseri and L. iners …..” etc.

   How was overcame the misidentification of L. crispatus which is reported previously as indistinguishable from L. amylovorus species by tDNA-PCR (“Baele, M., M. Vaneechoutte, R. Verhelst, M. Vancanneyt, L.A. Devriese, and F. Haesebruch. 2002. Identification of Lactobacillus species using tDNAPCR J. Microbiol. Methods 50: 267)? In addition, is really difficult to discriminate the species morphologically, due to the polymorphisms of bacterial cells (including lactobacilli), observed in the complex ecosystems and laboratory conditions.
S. Danova

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

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