Reviewer's report

**Title:** Do parental heights influence pregnancy length?: A Population-based prospective study, HUNT 2

**Version:** 1  **Date:** 18 October 2012

**Reviewer:** Ida Kirkegaard

**Reviewer's report:**

This manuscript is a comprehensive evaluation of the influence of maternal and paternal height on pregnancy length and the risk of pre- and post-term pregnancies. The study uses data from another population-based study (HUNT 2 study), and data from the Medical Birth Registry in Norway, and included 5010 pregnancies, provided by 3497 women, and 2798 pregnancies provided by 2005 men. They find a significant positive association between maternal height and pregnancy length, an increased risk of preterm delivery in short women and an increased risk of post-term pregnancies in taller women, whereas no association between paternal height and pregnancy length was found. The analyses are adequately adjusted for potential confounders, and have additionally provided analyses according to whether pregnancy was dated by LMP or ultrasound, and according to whether there was a spontaneous onset of labor, or if labor was induced.

It is a very important topic and indeed a well-done study. I applaud the authors for their data collection and the thoroughly analyses.

The manuscript certainly deserves publication and I only have very few concerns.

**Discretionary revisions:**

**Background:**

Paragraph 2: please describe what you mean by unfavorable cardiovascular risk profile.

Paragraph 4: Why have you chosen not to investigate the cardiovascular risk profile in pregnant women in association with pregnancy length and maternal height? It would be interesting to explore whether the short women delivering preterm had unfavorable cardiovascular risk profiles.

**Methods:**

Paragraph 2: What was the primary aim of the HUNT study? Do you have any information about non-participants?

**Discussion:**

The finding that taller women had higher odds of post-term pregnancies may be due to the fact that taller women have more 'healthy' pregnancies, and are thus not induced earlier because of pregnancy complications, such as FGR and
preeclampsia, meaning that it is not their height per se, but the healthy pregnancy, that causes the post-term pregnancy. The same accounts for the short women and preterm deliveries. Please comment on that.

Regarding the discussion about BPD and underestimation of gestational age for short women and the implications of the findings, I figured if you had access to a first trimester CRL measurement in some of the women? It would be interesting to compare the associations using second trimester BPD vs with first trimester CRL. In many countries pregnancies are now dated in the first trimester, how would you expect first trimester dating to influence the results?

**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.

**Declaration of competing interests:**

I declare that I have no competing interests