Reviewer’s report

Title: Myometrial contractility influences oxytocin receptor (OXTR) expression in term trophoblast cells obtained from the maternal surface of the human placenta

Version: 1 Date: 4 June 2015

Reviewer: Andres Lopez Bernal

Reviewer’s report:

Line 29. You mean the spontaneous onset of labour
Line 55. How would oxytocin receptors in trophoblast influence uterine contractility?
Line 64. Induction? Should be onset of labour; induction is more for the clinical procedure of starting labour medically.

Introduction: Interesting summary of the literature, based on review papers.

Page 182. Use g values
Lines 187-197. The specificity of the antibody used to measure oxytocin content should be thoroughly tested. Has the assay been validated? Precision; accuracy (adding known amounts of oxytocin and measuring them).
Line 199. The purpose of the trophoblast in vitro cultures is not clear.

The section on immunochemistry of oxytocin receptor is very weak. The technique is hardly quantitative. The quality of the pictures is poor. There are no positive and negative controls.

The results should be validated with other techniques.

Table 1 needs a column for statistical comparisons.

How can we have 12 figures but only 4 figure legends?

Many paragraphs (e.g. calcium sensitization; propagation theory) in the discussion are taken from reviews and are not relevant to this manuscript.

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

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