Reviewer's report

Title: Over-expression of Eph and ephrin genes in advanced ovarian cancer: ephrin gene expression correlates with shortened survival

Version: 1 Date: 19 February 2006

Reviewer: Mark S Duxbury

Reviewer's report:

General

This study examines Eph and Ephrin expression in 24 ovarian adenocarcinoma specimens. Although this has been examined with regard to EphA1 and Ephrin A1 (Han et al Gynecol Oncol. 2005 Nov;99(2):278-86), this study explores a wider range of Ephs/Ephrins and addresses an area of significant interest in this malignancy. The study has clear clinical relevance. The methods are appropriate and adequately described. Controls are described. The submission is clearly written.

The authors report increases in EphA1 and, to a lesser extent, EphA2 in tumours. EphA1 overexpression correlates with expression of EphrinA1. A correlation of both ephrin A1 and ephrin A5 expression with poor survival is reported.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. The study is limited by the small number of samples examined.

2. Reliance on one modality (RTPCR) is a limitation. Correlation with protein expression (IHC/Western) in these specimens would add strength to the submission, at the least as supportive data in the specimens in which correlation is found on RTPCR.

3. The mechanistic conclusions are not supported by data in this submission. Have the authors examined other components of Eph/Ephrin signalling?

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. The authors do not mention the relevant article by Han et al (Gynecol Oncol. 2005 Nov;99(2):278-86). This study concludes that EphA2 is a prognostic marker in ovarian carcinoma. The reason for the different result here should be discussed.

2. ‘Moderate correlation’ which appears to be statistically insignificant, may be more correctly referred to as a trend.

Discretionary Revisions (which the author can choose to ignore)

1. It feels like ‘intriguing’ and ‘intriguingly’ are overused in the text
**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

I declare that I have no competing interests