Reviewer’s report

Title: Primary microRNA 221/222 is strongly overexpressed in the majority of patients with acute myeloid leukemia

Version: 1 Date: 15 April 2013

Reviewer: Amanda Dixon-McIver

Reviewer’s report:

A very comprehensive piece of work and one that was a pleasure to review.

The following comments are discretionary revisions only:

1. The description of AML as an "aggressive" haematopoietic malignancy with a "dismal" outcome.

   This statement depends on the type of AML, the age at presentation and the molecular profile of your disease amongst other prognostic predictors. Whilst there are patients who definitely have an aggressive disease and therefore dismal outcome, those with the favourable and/or intermediate prognosis may not fear as bad. Consider the removal of aggressive and dismal.

2. Leukaemia-associated misexpression of miRNAs has been studied but no coherent picture has emerged yet.

   This statement contradicts the paragraph later in the paper where you describe miRNA signatures predictive of survival and specific patterns of expression that are associated with recurrent genetic abnormalities in AML.

3. Little is know about the regulation of miRNA expression.

   I am not sure that this is entirely correct given that there is mounting evidence of the regulation of miRNA expression by promoter transcription, methylation, miRNA processing, RNA editing, miRNA-target interactions etc.

4. pri-miR-221/222 was overexpressed to a substantially higher degree than its mature derivatives in AML versus healthy controls.

   Primary miRNA may encode for a number of mature miRNA, so could this perhaps provide an explanation (not discussed) for the difference?

5. "Parsimonious" explanation

   A delightful word but not the right use of this word in this context.

Level of interest: An article whose findings are important to those with closely related research interests

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.