Reviewer’s report

Title: Absence of mutations in NR2E1 and SNX3 in MMEP (microcephaly, microphthalmia, ectrodactyly, and prognathism) and related phenotypes

Version: 1 Date: 26 March 2007

Reviewer: Maria Giuseppina Miano

Reviewer’s report:

General
The manuscript from Kumar et al. proposes an observation of the genetic complexity of MMEP. However, the authors may ameliorate the goal of their paper refining several aspects as described below. Based on these considerations, I evaluate the paper suitable for publication in “BMC Medical Genetics” after major revision.

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

Major points:

1. In Methods, the authors should include a brief clinical description of each examined patient. Data reported in table 1, in my opinion, are not enough to explain the choice of the patients to underwent the screening analysis. Based on these considerations, the authors should be adding the criteria used in this selection.
2. In the case of the patient carrying the translocation 6q21;7q31.2, it is unclear why the authors exclude the involvement of an alteration on the chromosome 7. This point should be clarified.
3. Can the authors exclude the presence of other rearrangements? The authors should verify it by karyotype analysis.
4. The authors should add a picture describing the physical map of the SNX3 locus, underlying the distances between it and NR2E1 gene and also the translocation breakpoint.
5. The finding of g.21502T>C in the MMEP patient and in the patient with microcephaly is suggestive of a relationship with brain disease. However, to support this hypothesis, the authors should examine its effect on mRNA stability.
6. In Conclusion Section, the authors should be discussing the heterogeneity of the disease because in my opinion this is a crucial point.

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

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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.