Reviewer's report

Title: Tumour stromal cells derived from paediatric malignancies display MSC-like properties and impair NK cell cytotoxicity

Version: 1 Date: 17 July 2010

Reviewer: Massimo Dominici

Reviewer's report:

This manuscript by Johann et al. is comparing stromal cell populations obtained from marrow and tumor environment in a paediatric patient’s cohort. The approach seems original and the provided data are of relevance. In particular is surprising how similar can be stromal cells from marrow and from tumors. A more careful data presentation should be provided for immunological studies in vitro. More specifically:

Major Compulsory Revisions:

1. A paragraph with stats is needed in method section. A statistical analysis is needed in some of the figures and in their result section of the text.

Minor Essential Revisions:

2. In table 1 and in the text: it is unclear whether samples (both BM-MSC and tumoral MSC) were taken before or after chemotherapy. If this is the latter case, which was the isolation efficiency of tumor stroma and marrow MSC, respectively?

3. Figure 1. Please specify from where this representative example is taken. Any differences in FACS antigen profile between stroma cells taken from different tumor types?

4. Which is the phenotype of isolated NK cells? Was this verified by FACS? Please specify.

5. Figure 2 should be improved in clarity (i.e specify where adipose and where bone)

6. In the discussion, page 11. We presume the Authors meant epithelial to mesenchymal rather than “endothelial to mesenchymal”.

7. The FACS analyses of tumor stroma are of relevant interest as it is the comparison with MSC FACS profile. Any other previously published data on the topic? Please revise this carefully and properly emphasize the originality of these data, if applicable.

8. Please carefully check the text for typos; in particular in figure legends.
Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests