Reviewer’s report

Title: Mycophenolate Mofetil Modulates Adhesion Receptors of the b1-Integrin-Family on Tumor Cells: Impact on Tumor Recurrence and Malignancy

Version: 1 Date: 23 September 2004

Reviewer: Andrew Mazar

Reviewer’s report:

This is an interesting study evaluating the effects of the immunosuppressive drug mycophenolate mofetil (MMF) on certain events (integrin expression and tumor cell adhesion) related to tumor cell metastasis. This study addresses observations that certain transplant patients develop cancer some time after their transplant by examining the involvement of the immunosuppressive drug MMF in this process. Although this work is strictly an in vitro study it lays the groundwork for further studies evaluating the role of immunosuppressive drugs on tumor growth and metastasis in animal models.

Major Compulsory Revisions: None

Minor Essential Revisions:

1. The authors are not consistent in their use of terms to describe integrins. For example, a4b1 is described both as VLA-4 and CD49d. In addition, since this paper is being published for the cancer community, it would be much clearer to consistently use the heterodimer description of the integrin (e.g. a4b1, a5b1) which will make the paper easier to follow for those in the cancer community (the cancer community almost never uses the CD nomenclature for integrins).

2. What was the rationale behind the choice of doses for MMF?

3. The re-differentiation of DU-145 cells to the low-invasive phenotype is mentioned several times and this is incorrect for several reasons. There is not necessarily a correlation between decreased adhesion and decreased invasiveness (in fact, in many cell lines, it is the opposite). Also, DU145 cells are poorly invasive to start so it is not clear what the change in integrin expression might mean in this cell line.

4. Do the authors have any explanation for the bi-phasic effects of MMF on adhesion and the expression of integrins?

5. The authors do describe their statistical analysis methods but significantly different groups are not marked on the graphs or stated in the figure legends or results. This needs to be done. In addition, it is preferable to state the exact p value for the groups that are different rather than just stating that they are all p<0.05.

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions
**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

None.