Reviewer’s report

Title: Transplant biopsy beyond light microscopy

Version: 1  Date: 5 June 2015

Reviewer: Randolph Hennigar

Reviewer’s report:

Discretionary Revisions

I have reviewed the manuscript entitled "Transplant Biopsy Beyond Light Microscopy," by Adam and Mengal. The paper reviews the current status of molecular approaches applied to formalin-fixed paraffin-embedded renal transplant biopsies. The authors focus largely on the contributions of gene expression microarrays to 1) the diagnosis of T-cell and B-cell mediated rejection, 2) allograft survival, and 3) assessment of donor kidneys. The manuscript emphasizes the advantage of molecular approaches over morphology and advocates for broader adoption of tissue microarrays and other platforms (e.g., nanotechnology) in the diagnosis, treatment and management of transplant patients. The paper is well-written and effectively distills the current data to support the authors' viewpoints. It is hard to dispute their conclusions.

1) An important aspect missing from the review includes the role of microarrays in assessing processes not related to rejection such as CNI nephrotoxicity, drug reactions, viral infections, etc.

Minor Essential Revisions

2) Ref 47 is "in press" but is dated 2007!

Level of interest: An article of importance in its field

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