Reviewer’s report

Title: A global transcriptional view of apoptosis in human T-cell activation

Version: 1 Date: 18 July 2008

Reviewer: Patricia Hunter

Reviewer’s report:

Major Compulsory Revisions

1. This work is a companion to “Comparative analysis of transcriptional profiling of CD3+, CD4+ and CD8+ T cells identifies novel immune response players in T-cell activation” recently published in BMC Genomics. While there is almost no overlap between the genes examined in this new manuscript (focus on apoptosis, NFkB pathway and MAP kinase signalling) it relies too heavily the previous work for an adequate understanding of the experimental methods. Specifically, the name and maker of the arrays should be stated in the methods as well as the definition of repeated experiments (E1, E2, E3, etc.). If an “E” represents the same experiment performed on all three donors, some indication of the error or deviation should appear in figures 2, 3B, and 5B-D. If the experiment is performed on just one donor, it should be stated whether it is the same donor for all replicates.

Minor Essential Revisions

1. In the methods section, microarray experiments and data analysis, “…and data analysis were carried out as previously described” should perhaps read “…and data analysis were carried out as previously described”
2. Label on axis of figure 2 should read “ratio” not “ration”.

Discretionary Revisions

1. Some of the data interpretation is confusing. For example it is claimed that CASP3 expression begins at 48-96 hours but on scrutiny of figures 1 and 2, I would suggest that it begins at 12 – 24 hours or at least by 48 hours at both the transcript and protein level. Similarly, BBC3 protein appears to begin to accumulate immediately upon activation while its transcription falls off and never returns to the level it was at 4 hours. Therefore, I would not describe this protein expression pattern as being “consistent with their (its) transcription pattern.”
2. It would be nice to see FACS plots in figure 2 and to know the % positive of live cells or T cells at time=0 for each protein.

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.