Reviewer's report

Title: Human T-lymphotropic virus type 1 (HTLV-1) prevalence and quantitative detection of DNA proviral load in a group of individuals originating from endemic areas and living in Italy.

Version: 1 Date: 8 November 2005

Reviewer: Graham Taylor

Reviewer's report:

General

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

Background. The authors give the impression that inflammatory disease is very uncommon in patients with HTLV-I. In fact, inflammatory disease, which encompasses more than just HAM/TSP is probably as common as ATLL, affecting up to 7% of carriers.

The discussion of ATLL in Caucasians is restricted to peripheral T-cell lymphoma, why?

The statement relating to a relatively large number of indeterminate results with serology needs clarification/quantification. What is a large number?

Methods: MT-2 cell line is stated to have 2.1 HTLV copies per cell. This refers to complete genome. There are also a number of deleted genomes which might impact on the relative accuracy of their standard curve as the 3' region is most commonly preserved.

The temperature holds in lightcycler seem very long. Eg It is usual to allow 1sec extension per 20bp

Results. The qPCR is described as sensitive and specific but insufficient data are presented to justify this description. How sensitive? How specific? 95% CI?

Discussion: The authors suggest that the relationship between proviral load and pathogenesis of HTLV-I is not well understood, with no reference to the papers which have already addressed this most notably Nagai M et al 1998 J Neurovirology.

Fig 1. What is the PCR product seen in the negative cases? What is the melting temperature of this product?

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

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Discretionary Revisions (which the author can choose to ignore)

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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: Needs some language corrections before being published
Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests’