Reviewer’s report

Title: Comparative evidence for a link between Peyer's patch development and susceptibility to transmissible spongiform encephalopathies

Version: 1 Date: 27 November 2005

Reviewer: AJ Valleron

Reviewer’s report:

General
Interesting paper giving strong indications that Peyer's patch development can explain the age related susceptibility found in TSEs. The data presented support this hypothesis for scrapie, BSE and vCJD.

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

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
- The sample sizes analysed for concordance between susceptibility and PP development concern 19 sheep, 94 cattle, and 46 humans. The origin of these samples should be presented in the M and M section.
- The results rely on the analysis of the correlation between PP development parameters and the "risk of infection". How is the "risk of infection" defined? Is it just f1, f2, f3 (the three values of f(a)) according to age or does it incorporate time? (in other words, is it lambda (a,t)?
- For cattle and humans, which models were taken to estimate the risks of infection of a subject of age a at time t?

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:
'I declare that I have no competing interests'