Reviewer's report

Title: Specific detection of fungal pathogens by 18S rRNA gene PCR in microbial keratitis

Version: 1 Date: 12 November 2007

Reviewer: Xi Huang

Reviewer's report:

General

In the manuscript entitled “Specific detection of fungal pathogens by 18S rRNA gene PCR in microbial keratitis”, Embong et al. try to detect fungal pathogens in keratitis patients with 18S rRNA-based PCR technique. In general, this may provide a fast way for diagnosis of fungal keratitis. However, this 18S rRNA-based PCR detection is not a novel techniques, similar works have been published by others in other systems such as lung or skin before. (Search Pub Med with key word “18S rRNA-based PCR for fungal infection). Authors should reference some of the published data and indicate how you current data agree or disagree with others. Several issues also need to be addressed:

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

It would be much better if the authors can increase their sample size.

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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)

In background session, why not provide the incident of fungal keratitis in the world or local area such as Asia or Malaysia, in stead of New York, Florida, or Texas.

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Discretionary Revisions (which the author can choose to ignore)

1. The authors should introduce, discuss and reference the findings from other labs, which use a similar 18S rRNA-base PCR technique.

2. They should provide more background information regarding 28S rRNA PCR techniques. Since the authors have RNA and cDNA samples, it should be very easy to do the 28S rRNA-based PCR, which will confirm or compare the data from 18S rRNA-base PCR. What is the advantage to use 18S rRNA PCR, but not 28S rRNA PCR technique?

3. In RESULTS session, PCR result is more like a method. The authors should provide their PCR results in stead of methods in this section.
4. Authors should provide statistics data such as U-test or ANOVA and P values.

**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**: Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests**: I declare that I have no competing interests.