Reviewer's report

Title: BACE1 inhibitory activity of fungal endophytic extracts from Malaysian medicinal plants

Version: 1 Date: 14 March 2011

Reviewer: X Shen

Reviewer's report:

In this manuscript, the authors isolated endophytic fungus from plants and assayed the BACE1 inhibition activities of the fungal extracts at the molecular level. Accordingly, the authors determined the strain of the fungi with the most active BACE1 inhibition activity. Although some hints could be obtained from this work, some points should be addressed.

1) Why did the authors choose WRL68 for the cytotoxicity assay?

2) The authors should demonstrate the influence of HAB16R13 extract upon amyloid beta production in cultured cell to further identify the value of the HAB16R13 extract in vitro or isolate some novel small molecular compounds of the HAB16R13 extract to provide more information for potential anti-AD drug discovery and design.

3) As the authors highlighted that the fungus were endophytic, what are the advantages of endophytic fungus?

4) Considering the four extracts from HAB16R13, HAB16R18, HAB16R14 and HAB8R24 exhibited almost the same IC50(BACE1), is there any possibility that the four fungus belong to the same strain which produce the same active compounds?

5) In page 10(line 10), there is another function that the authors forgot to mention.

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.