Reviewer’s report

Title: Association of Methylentetrahydrofolate Reductase (MTHFR) 677 C > T Gene Polymorphism And Homocysteine Levels In Psoriasis Vulgaris Patients From Malaysia: A Case-Control Study.

Version: 1 Date: 4 October 2011

Reviewer: Vasudevan Ramachandran

Reviewer’s report:

Major Compulsory Revisions

The authors have failed to show an association between the MTHFR gene polymorphism and psoriasis vulgaris in Malaysian population and similar findings have been seen in many populations (Ref 6 and 7), however this work is novel and important findings for Malaysian population.

The methodology described in this manuscript is scientifically sound.

This manuscript consisted of 200 cases and 167 controls but its not sufficient when it comes to three ethnic races, where it affects the statistical significance that leads to population stratification. Please provide the sufficient proof for sample size as the study was designed based on case-control study.

Why the authors have investigated the relationship between MTHFR gene polymorphism and homocysteine, vitamin B12 and folic acid levels in selected 41 cases and 43 controls? Please provide a strong justification for choosing those particular subjects.

Why the authors didn't analyze the relationship between MTHFR gene polymorphism and homocysteine, vitamin B12 and folic acid levels in all the subjects?

Are the patients under the early onset psoriasis category (type I or type II)?

Figure 1 is missing, please add.

It would have been great if authors would have added information about the PCR reaction mixture to amplify the products.

Apart from PCR-RFLP method, how did the authors confirm the gene polymorphisms?

Have the authors done the DNA sequencing to confirm the genetic polymorphism? If so, please provide the figure of sequencing showing the homozygous and the heterozygous types.

Did the authors test for normality in order to use the appropriate tests for
parametric and non-parametric variables?

**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.