Reviewer's report

Title: Effect of resveratrol on alcohol induced mortality and liver lesions in mice

Version: 1 Date: 25 September 2006

Reviewer: Carani V. V Anuradha

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General
The authors have investigated the effect of resveratrol on alcohol-induced mortality and liver damage in mice. For this liver function enzymes, inflammatory molecules and histology are presented.

Points of concern
1. Introduction does not focus on the need/importance for the study and is vague.
2. What is the amount of alcohol and resveratrol consumed by the animals? This should be determined from fluid intake. Alcohol-treated animals drank less water and this could decrease the amount of alcohol & resveratrol consumed as compared to those not given alcohol.
3. Photographs to show histological changes are needed. Data presented show only mild changes as presented in discussion, which are not consistent with high mortality (survival 20%) at the 7th week.
4. The number of animals used for each study (biochemical, histology, mortality) should be specified.
5. The appropriate dosage of resveratrol for human consumption as an outcome of the study could be suggested while considering prophylaxis.
6. What is the reason for the absence of TNF-α in plasma in response to ethanol? This should be discussed along with the rise in pro-inflammatory cytokine, IL-1. What are the consequences of a rise in IL-1?
7. The authors should consider and report data on the mechanisms by which ethanol could reduce survival other than malnutrition. Since some of the benefits of resveratrol suggested in the discussion are a block in nitric oxide production, COX-2 and NFκB pathway.

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)

Discretionary Revisions (which the author can choose to ignore)