Author's response to reviews

**Title:** Anti-atherosclerotic function of Astragali Radix extract: downregulation of adhesion molecules in vitro and in vivo

**Authors:**

Yang You (petergemma@163.com)
Yan Duan (dy0113@sina.com)
Shao-wei Liu (lswly2000@163.com)
Xiao-lin Zhang (xiaolindianyu75@sina.com)
Xiu-li Zhang (zhangxiuli@dicp.ac.cn)
Jia-tao Feng (fengjiatao@dicp.ac.cn)
Cheng-hui Yan (yanch1029@163.com)
Ya-ling Han (yalinghan@gmail.com)

**Version:** 6  **Date:** 13 March 2012

**Author's response to reviews:** see over
Dr Fatma Afifi  
Associate Editor  
*BMC Complementary and Alternative Medicine*

Dear Dr. Afifi,

Thank you for giving us the opportunity to resubmit our manuscript. We have carried the additional experiments suggested by the reviewers and have revised the manuscript based on their comments. We include our point-by-point responses to the specific concerns below. Changes relating to specific points are indicated in red in the revised manuscript.

**Reviewer 1:**

Major concerns:

1) Although inhibition of TNF-α-induced inflammation by ARE was demonstrated in SVEC4-10 cells, the possible cytotoxic effect of ARE was not provided. Suggest to perform cell viability assay in the presence of TNF-α and concentrations of ARE used in the cell culture study.

We have supplemented our original data by performing MTT assays after treatment with TNF-α and/or various concentrations of ARE. The results of these assays showed that ARE had no influence on cell viability at the concentrations used, either alone or in combination with TNF-α, and indicate that the downregulation of adhesion molecules in SVEC cells by ARE was not due to the direct toxicity of the substance.

2) Please put a scale bar in the Figures 1A and 1B.

We have provided scale bars for all figures, as suggested.

3) Was total protein was used to assess NF-κB expression in Figure 3A? Since activated NF-κB is located in nucleus, and suggest to perform nuclear NF-κB protein expression.

Thank you for this very pertinent comment concerning the expression and activation profiles of NF-κB, especially in the nucleus. Figure 3A shows the specific expression of NF-κB in the nucleus to indicate its activation in the presence of different treatments. We apologize for not depicting the expression profile of this nuclear factor more clearly. We have revised the overall expression data (using total protein) after various treatments, and have included it in the revised manuscript. The results showed that the various regimens were unable to change the expression of total NF-κB, but nuclear NF-κB was indeed differentially activated.

4) Please provide the animal diet composition.
The mice were fed a high-fat, high-cholesterol diet containing 15% fat and 0.25% cholesterol. This information has been provided in the revised manuscript.

5) There are still some spelling and grammar errors in this manuscript, and please double check again.
   The manuscript has been edited to correct any spelling and grammatical errors.

6) In p14, “We demonstrated that ARE regulated VCAM-1 and ICAM-1 expression levels through activation of the NF-κB pathway in SVEC cells.” Should be changed to “We demonstrated that ARE regulated VCAM-1 and ICAM-1 expression levels through down-regulation of the NF-κB pathway in SVEC cells.
   Thank you for pointing this out. We have corrected this in the revised manuscript.

   We thank the reviewers and editors for their comments. We hope that this revised manuscript is now acceptable for publication in *BMC Complementary and Alternative Medicine*.

   Sincerely,

   Yaling Han, MD, PhD