Reviewer's report

**Title:** Atorvastatin Treatment Attenuates Renal Injury in an Experimental Model of Ischemia-Reperfusion in the Rat

**Version:** 1  **Date:** 18 June 2013

**Reviewer:** Masahiro Ikeda

**Reviewer's report:**

**Major Compulsory Revisions**

The authors have examined the effect of treatment with atorvastatin (ATO) after clamping the renal hilus, prior to kidney reperfusion, on renal injury in an ischemia-reperfusion (I/R) rat model. They found that ATO lessened the renal injury, accompanied by reduction of the plasma levels of advanced oxidation protein products (AOPP) and malondialdehyde (MDA), both of which are markers of oxidative stress. They also observed that ATO ameliorated the inflammatory response, as evidenced by decreases in the renal expression levels of intracellular adhesion molecule-1 (ICAM-1) and monocyte chemotactic protein-1 (MCP-1). Although these observations are potentially interesting, it is unclear what new findings this study offers. Haylor et al. (Exp Biol Med, 236:755-763, 2011) have reported the protective effect of ATO against renal I/R injury using a similar administration protocol. Furthermore, based on studies of animal models, antioxidation and anti-inflammation mechanisms have been proposed for the action of statins. The authors need to define the purpose of the study more clearly and cite appropriate published papers.

**Minor Essential Revisions**

1. In the Materials and Methods, Animals section, the authors should state the location of the Animal Experiment Committee of Southern Medical University at first mention.

2. A space should be inserted correctly before and after the description of the Unit.

3. The maker, city and country should be stated properly at first mention for all materials.

4. In Figure 1, is there a significant difference between IR and IR + ATO at 24 hours after surgery? This should be clearly stated.

5. The authors are advised to clearly indicate the numbers of animals in the Figure legends or Figures, and the Table, rather than in the Material and Methods section.

**Level of interest:** An article of limited interest

**Quality of written English:** Needs some language corrections before being
published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.