Reviewer’s report

Title: Transcriptional profiling of left ventricle and peripheral blood mononuclear cells in a rat model of postinfarction heart failure

Version: 1 Date: 30 August 2013

Reviewer: Shunichiro Kubota

Reviewer’s report:

Major points:

In this paper the authors investigate ‘diagnostic biomarkers’ of myocardial infarction, and the paper reports that ceruloplasmin and tetraspanin 12 are potential biomarkers. Ceruloplasmin is overexpressed in the heart and blood in response to heart failure. Tetraspanin 12 is downregulated only in the peripheral blood mononuclear cells.

The results are potentially interesting, but there are several problems in the paper.

1 Tetraspanin 12 is downregulated only in the peripheral blood mononuclear cells, but not in the heart. It is hard to understand the mechanism how tetraspanin 12 is downregulated in response to myocardial infarction.

2 As discussed by the authors, serum ceruloplasmin is already reported as a cardiovascular risk marker by GWAS in Reference 40. Therefore, the result is not novel. The mechanism how serum ceruloplasmin is upregulated in the peripheral blood mononuclear cells in response to myocardial infarction has not been elucidated.

Level of interest: An article of limited interest

Quality of written English: Acceptable

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

Declaration of competing interests:

I have non-financial competing interests.