Reviewer’s report

Title: The effect of Melatonin on bacterial translocation following ischemia/reperfusion injury in a rat model of superior mesenteric artery occlusion

Version: 3 Date: 24 August 2014

Reviewer: Ernst von Dobschuetz

Reviewer’s report:

The authors report an interesting study on ischemia reperfusion injury of rat intestine and the preventive therapeutic use of melatonin.

major Compulsory Revisions.

Only three literature citations are outlined which are quite old on the relevance of melatonin in oxygen radical scavenging.

The authors should look for better evidence of their therapeutic concept and outline this in the discussion.

The authors use melatonin before the onset of reperfusion. Thus it is only a preventive agent which could be used in the clinical setting of organ transplantation or vascular surgery.

The model does not prove the use of this therapeutic once the reperfusion injury already exists. This should clearly be stated in the discussion.

Why is the dosage of 10 mg ip used. Are there any data supporting this dosage?

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

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.