Reviewer's report

Title: NGAL as a possible biomarker for sepsis-induced kidney failure: evaluating changes in NGAL expression in a rat model of acute kidney injury

Version: 2 Date: 15 February 2012

Reviewer: Frank Thevenod

Reviewer's report:

This study investigates the role of the neutrophil gelatinase-associated lipocalin (NGAL) as an early biomarker of acute kidney injury induced by LPS in a rat model. Renal function is affected 3-12 h after LPS. NGAL mRNA is upregulated in rat kidney tubules at 3-12 h after LPS and correlates with urinary NGAL but not with plasma NGAL as well as with TNF-alpha mRNA but not IL-6 mRNA. The authors conclude that urinary NGAL is a good marker of LPS-induced acute kidney damage in rat.

Major compulsory Revisions:
1. Figure 2 and legend to Figure 2 do not match. Figure 2 B does not show southern blots as described in the legend. Figure 2C does not describe ISH signal time-course but RT-PCR time-course.
2. Figure 4B does not show a southern blot but RT-PCR.
3. The authors need to discuss the work of Paragas N et al. (Nat Med. 2011 Feb;17(2):216-22) in the context of their study.
4. The authors should emphasize what is specific/novel about their study compared to the human studies or the work of Paragas et al.?

Minor Essential Revisions:
5. p. 4 define ISH
6. p. 4 2nd paragraph …established a suitable animal model…, not …suitable for animal…

Level of interest: An article of importance in its field

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'