Reviewer’s report

Title: Pirfenidone prevents Acute Kidney Injury in the Rat

Version: 3 Date: 29 Jan 2019

Reviewer: Mark De Caestecker

Reviewer's report:

I accept your argument about statistical power. Please include this in statistical methods based on your own lab data. In addition, please graph actual values (dot plots with mean and SD) for BUN, creatinine clearance and RBF, so that the readers can see the actual variance in these key functional data.

FYI: to the argument that this is the standard in the literature (4-6 rats per group), I think this is a false argument. Much of the literature is littered with falsely positive, underpowered pre-clinical studies that are published because of the selection bias for positive data. My own personal experience with functional assessments and power analysis based on our own data and direct of GFR in mice (granted not rats), tells me that 4-6 animals per group is inadequate, and the only thing worse from the 3R perspective, is performance of underpowered studies, where the findings have an increased likelihood of being false given the publication environment we currently have.

As these review comments are open and posted on line with this journal, I hope these comments will generate some discussion of this important topic online.....

Please confirm that you have included your review in the ‘Comments to Author’ box?

As a minimum standard, please include a few sentences that outline what you think are the authors’ hypothesis/objectives, their main results, and the conclusions drawn. Your report should constructively instruct authors on how they can strengthen their paper to the point where it may be acceptable for publication, or provide detailed reasons as to why the manuscript does not fulfill our criteria for consideration. Please supply appropriate evidence using examples from the manuscript to substantiate your comments. Please break your comments into two bulleted or numbered sections: major and minor comments.

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Are the methods appropriate and well described to allow independent reproduction of experiments?
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Yes

**Are you able to assess the statistics?**
- Are the statistical test(s) used in this study appropriate and well described?

- Is the exact sample size (n) reported for each experimental group/condition (as a number, not a range)?

- Are the description of any error bars and probability values appropriate?

- Are all error bars defined in the corresponding figure legends?

- Has a sample size calculation been included, or a description and rationale about how sample sizes were chosen?

Please can you confirm which of the following statements apply to your statistical assessment of the manuscript (Please include details of what the authors need to address in the ‘Comments to Author’ box):

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**Are the conclusions drawn adequately supported by the data shown?**
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