

Jody Plank, PhD
October 23rd, 2015

Rubriq Independent Peer Review

WHAT IS INDEPENDENT PEER REVIEW?

Independent of any Journal or Publisher

Identifies the strengths and weaknesses of a manuscript outside of the lens of a particular journal

Creates the opportunity for “Portable Peer Review”



USE MODELS FOR RUBRIQ

Author feedback model

Perform peer review exclusively for the purpose of improving the manuscript and informing where it is likely to be published

Journal assistance model

Peer review manuscripts post-submission to assist journals and publishers with rigorous, timely peer review

- Veterinaria México OA
- Qscience (Bloomsbury Qatar Foundation)

Author – Journal matching model

Perform peer review for authors and match the manuscripts with journals willing to use the Rubriq reviews in place of their own review system



HOW DOES RUBRIQ PERFORM PEER REVIEW?

Double-blind model

Three* Academic Peer Reviewers (*for our standard workflow)

- Doctoral-level degree (or tenure-track professorship)

- Active research appointment

- Published with peer review experience

- Either from our current network or recruited for the manuscript at hand

Review performed using the Rubriq Scorecard manuscript assessment tool

- Guided assessment of each aspect of the manuscript

- Both quantitative evaluation and qualitative commentary

Quality controlled by the Rubriq Team

- Published PhDs with years of experience

RESEARCH
SQUARE



THE RUBRIQ SCORECARD

Provides Quantitative evaluation and Qualitative commentary on all aspects of a manuscript

Sections include:

Novelty & Interest

How significant is the work and how broad the potential readership?

Quality of Research

How well formulated is the hypothesis and how well executed was the research?

Quality of Presentation

How well were the ideas, results, and conclusions explained?

Sound Research

Does this manuscript represent technically sound research?

Publication Potential

Where do you believe this work should be published?



THE RUBRIQ SCORECARD

Quality of Research*

Hypothesis, Objective, Rationale

10



- Meets all criteria
- Rationale is unclear
- Objective/hypothesis is not supported by background
- Objective/hypothesis is not stated
- Other - see comments

- The hypothesis and objective for this research are very sound, and this direction is well supported by the literature.

What did the authors do well? What could they improve on?

Methods and Data

5



- Meets all criteria
- Missing essential references
- Design/techniques not up-to-date
- Missing important details for reproducibility
- Missing some experimental controls
- Inappropriate statistical analyses
- Missing an important experiment
- Approach/data not consistent with objectives/hypothesis
- Other - see comments

- Overall, I think the methods and data for this paper are strong, but there were a few issues that should be easy to address.
- In figure 1 the authors didn't include a positive control for Topoisomerase I. This is a robust enzyme and almost certainly very active, but they are using it under buffer conditions that are a little outside of the norm, so it would be reassuring to have that control here.

In figure 5 I see a faint band

THE RUBRIQ SCORECARD

Novelty & Interest*

Novelty

8



New technique, method, or approach (proof of principle)

High Med Low N/A

New question, theory or hypothesis (totally new idea)

High Med Low N/A

New result, discovery, or perspective/synthesis (proves an established idea)

High Med Low N/A

- The idea of using the topology of the DNA to monitor the binding of these proteins is something that hasn't ever been explored, although the results are a little less than earth-shattering

What did you find most novel about this work? How could the authors improve the novelty of the work?

Interest

10



- of broad interest to researchers in this field and other fields
- of broad interest within the field
- of moderate interest within the field
- of interest to a small group within the field
- of limited interest

What is the most interesting aspect of this work? What limits the level of interest of the work?

A VARIETY OF RUBRIQ SCORECARDS FOR DIFFERENT SUBJECTS AND PURPOSES

Each new Scorecard is developed with a team of active publishing researchers in their respective fields

Each is refined to include the relevant elements of that field's research and the elements of presentation of that field's research

Life Science (Biomedical Sciences)

Physical Science

Clinical Case Report

Engineering

Humanities

Math and Computer Science

Quantitative Social Science

Qualitative Social Science

Literature Review

Biostatistics

Revisions



THE RUBRIQ BIostatISTICS SCORECARD

Biostatistics*

Design

- 10
- Meets all criteria
 - Study design not appropriate for the scientific question (e.g., flawed approach)
 - Analysis population does not accurately reflect the study design (e.g., exclusions or "cherry-picking" limit study generalizability)
 - Potential problems with control/comparison group (e.g., likely confounders)
 - Other - see comments

What did the authors do well? What could they improve on?

Analysis

- 10
- Meets all criteria
 - Applied statistical methodologies not adequate to address the scientific question (e.g., poor choice of model)
 - Statistical assumptions for the chosen model are not properly addressed (e.g., homogeneous population, normality, proportional hazards, linearity of effect)
 - Unjustified use of alternative indicators or overly complex analyses
 - Poor implementation of analysis procedures or techniques (e.g., flawed execution, poor parameter selection, analysis diverges from design)
 - Analysis lacks robustness (limited/exploratory, possible bias or false positives, unlikely to be reproduced)
 - Other - see comments

What did the authors do well? What could they improve on?

Reporting and Presentation (text and figures/tables)

- 10
- Meets all criteria
 - Lacks important reporting details for key issue of interest (e.g., magnitude and precision for observed effects)
 - Missing important details for reproducibility (e.g.,

What did the authors do well? What could they improve on?

Reporting and Presentation (text and figures/tables)

- 10
- Meets all criteria
 - Lacks important reporting details for key issue of interest (e.g., magnitude and precision for observed effects)
 - Missing important details for reproducibility (e.g., regarding implementation and analysis)
 - Presentation and visualization are incomplete or inadequate to communicate the analysis
 - Problems with appearance/labeling in figures, legends, tables
 - Other - see comments

What did the authors do well? What could they improve on?

Interpretation

- 10
- Meets all criteria
 - Interpretation of results does not accurately reflect the completed analysis
 - Unacknowledged limitations or potential bias
 - Leads to inaccurate conclusions (including inaccurate descriptors such as "significance", "no difference")
 - Other - see comments

What did the authors do well? What could they improve on?

Biostatistics Summary*

Are the statistics in this paper sound?

- 10
- Yes - the statistics are adequate for publication; the conclusions are sound
 - Maybe - the statistical analysis needs some adjustments, which may or may not alter the conclusions
 - No - the statistical design/analysis is fundamentally flawed

Please leave comments below about your overall impression or the potential impact of the manuscript. *



THE RUBRIQ REPORT

Aggregates the Reviewer feedback for both the Quantitative assessment and the Qualitative comments

Provides a Sound Research Stamp to provide context for the suitability of the work for publication in a broad interest, sound research (science) based journal

Also includes an iThenticate report and a Journal Recommendation report (if purchased)



THE RUBRIQ REPORT

Rubriq JournalGuide AJE Jody Plank


Summary
Sound Research
Quality of Research
Quality of Presentation
Novelty & Interest
Reviewer profiles
iThenticate report
Manuscript files
Printable report
Share this report

Rubriq scorecard


Compiled on May 14th, 2015

Manuscript: Treatment of XX-induced hepatotoxicity through upregulation of XX




Client: Customer Customer



**SOUND RESEARCH
POTENTIAL**
Possibly publishable with revision



R-Score:
5.4 / 10

| | |
|-------------------------------|---|
| Quality of Research — 7.0 |  |
| Quality of Presentation — 6.2 |  |
| Novelty & Interest — 6.1 |  |

Reviewer 1

This paper has a very low chance of publications until the Western blots are corrected; they do not look clear. Dose-response data may not be a deal breaker but it would help. The authors need to discuss cause and effects in greater detail. Did XX cause autophagy or did the toxicity caused by XX cause autophagy, as is widely believed? I do not think this paper is sufficiently strong to change current opinions.

Reviewer 2

Overall, this is an interesting study on the effects of XX on mitochondrial autophagy. Because the field that will be interested in this study is somewhat small, the potential impact is limited. That said, most of the techniques used were state-of-the-art and were done well. However, the use of single methods to address a question leads to over-interpretation and some inappropriate conclusions. These issues could be improved with the addition of several new experiments.

Reviewer 3

The overall message of the manuscript is missed due to the errors in the figures and legends. These errors need to be resolved and the manuscript checked for correspondence between the figures, legends and the with the manuscript text in general. Overall the science is sound, although some points of the results will need to be refined according to the edited figures and legends.

RESEARCH SQUARE

THE RUBRIQ REPORT

Rubriq JournalGuide AJE Jody Plank

Summary

[Sound Research](#)

[Quality of Research](#)

[Quality of Presentation](#)

[Novelty & Interest](#)

[Reviewer profiles](#)

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Rubriq scorecard


Compiled on May 14th, 2015

Manuscript: Treatment of XX-induced hepatotoxicity through upregulation of XX

Client: Customer Customer



**SOUND RESEARCH
POTENTIAL**
Possibly publishable with revision



Rubriq
adjustment peer review system

R-Score:
5.4 / 10

| Category | Score |
|---------------------------------------|-------|
| Quality of Research | 7.0 |
| Quality of Presentation | 6.2 |
| Title, abstract, and introduction | 8.0 |
| Results (text) | 7.7 |
| Results (figures, graphs, and tables) | 2.4 |
| Discussion | 6.4 |
| Conclusions | 6.9 |
| References | 6.1 |
| Writing | 7.2 |
| Novelty & Interest | 6.1 |

Reviewer 1


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Reviewer 2

Overall, this is an interesting study on the effects of XX on mitochondrial autophagy. Because the field that will

Reviewer 3

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THE RUBRIQ REPORT


- Summary
- Sound Research
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- Printable report
- Share this report


Quality of Research


Hypothesis, Objective, Rationale- 6.8

Key points

| | |
|----|---|
| | Meets all criteria |
| 👤👤 | Rationale is unclear |
| | Objective/hypothesis is not supported by background |
| | Objective/hypothesis is not stated |
| 👤 | Other - see comments |

 Reviewer 1
Many of the references were in obscure or lower tier journals and not in front line journals needed to justify a novel hypothesis. The references could be upgraded for a bigger impact.

 Reviewer 2
The hypothesis is not directly stated, although it is inferred.
The authors do a good job of stating background information to lay the foundation for their studies.

 Reviewer 3
The hypothesis/objective meet most of the criteria. However, the rationale and hypothesis could be more clearly stated in the last paragraph of the introduction. The introduction lacks background material on XX. XX is only mentioned in the last paragraph of the introduction. Thus, it is not clear from the introduction why the author is evaluating the role of XX. An overview of the role of XX in mitophagy would help ready understanding.

Methods and Data- 7.3

Key points

| | |
|---|--------------------|
| 👤 | Meets all criteria |
|---|--------------------|

 Reviewer 1



LESSONS LEARNED SO FAR IN RUBRIQ

Many reviewers will embrace the concept of a “guided review”



RECENT RUBRIQ REVIEWER FEEDBACK

“I highly appreciated the guidance and the clear-cut items”

“I like the scoring rubric - it is quantitative, and will help authors improve their presentation and manuscript.”

“The review scorecard is fantastic and easy to use.”

“Great system for reviewing!”

“It all works very well - I wish other journals would use a similar system.”

“Takes a little to get used to (interface) and get familiar with the categories, but I like the guidance as a reviewer and I think will generate a nice concise, organized report.”

“it is very easy reviewing a paper using this kind of system. it is auto saved too!”

“Very useful way to solidly review research papers. The content of the scorecard is very comprehensive and nearly covers all aspects needed to evaluate research work. Thanks.”

“I like the new form of the scorecard and the easiness of editing already entered comments. Reviewing using a scorecard is pleasant.”

“Albeit not used to review a paper using a scorecard such as that used by Rubiq[sic] I found it exhaustive and very useful for authors.”



LESSONS LEARNED SO FAR IN RUBRIQ

Many reviewers will embrace the concept of a “guided review”

Lower “Scope creep” from reviewers?

Value in “Triple-Blind” peer review



Please ask questions or learn more at [Rubriq.com](https://rubriq.com)

THANK YOU!

RESEARCH
SQUARE

