

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

ESPS manuscript NO: 28894

Title: Effects of *Saccharomyces cerevisiae* or *boulardii* yeasts on acute stress induced intestinal dysmotility

Reviewer's code: 02770241

Reviewer's country: United States

Science editor: Jing Yu

Date sent for review: 2016-07-21 18:42

Date reviewed: 2016-08-14 21:37

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|--|--|--|--|
| <input type="checkbox"/> Grade A: Excellent | <input checked="" type="checkbox"/> Grade A: Priority publishing | Google Search: | <input type="checkbox"/> Accept |
| <input checked="" type="checkbox"/> Grade B: Very good | <input type="checkbox"/> Grade B: Minor language polishing | <input type="checkbox"/> The same title | <input type="checkbox"/> High priority for publication |
| <input type="checkbox"/> Grade C: Good | <input type="checkbox"/> Grade C: A great deal of language polishing | <input type="checkbox"/> Duplicate publication | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D: Fair | <input type="checkbox"/> Grade D: Rejected | <input checked="" type="checkbox"/> No | <input checked="" type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E: Poor | | BPG Search: | <input type="checkbox"/> Major revision |
| | | <input type="checkbox"/> The same title | |
| | | <input type="checkbox"/> Duplicate publication | |
| | | <input type="checkbox"/> Plagiarism | |
| | | <input checked="" type="checkbox"/> No | |

COMMENTS TO AUTHORS

The authors investigated the possible effects of *Saccharomyces boulardii* or *Saccharomyces cerevisiae* on reducing the stress-related intestinal dysmotility. The study is well designed and well implemented. The manuscript should be accepted for publication with the following revision. 1. The biggest confusion of the manuscript is the inconsistent use of statistical terms. In the abstract and Tables, P-value was used, while the probability of superiority (PS) was used in the results section. It is difficult for any reader to match these two values. The authors should make this consistent by removing the use of PS, or adding p-values in the results section. 2. The use of the yeast species should be consistent. When first introduced, they should be used as "*Saccharomyces boulardii* and *Saccharomyces cerevisiae*", rather than "*Saccharomyces boulardii* and *cerevisiae*". Later, the species should be used as "*S. boulardii* and *S. cerevisiae*", rather than "*S. boulardii* and *cerevisiae*". 3. The term "post-incubation yeast solution" is not clear. How was this condition achieved? This could significantly affect the composition of the Snt. 4. P-values should be provided in Figure 1A and 1C.

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ESPS manuscript NO: 28894

Title: Effects of *Saccharomyces cerevisiae* or *boulardii* yeasts on acute stress induced intestinal dysmotility

Reviewer's code: 03317031

Reviewer's country: Turkey

Science editor: Jing Yu

Date sent for review: 2016-07-21 18:42

Date reviewed: 2016-08-16 09:05

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|---|--|--|--|
| <input type="checkbox"/> Grade A: Excellent | <input checked="" type="checkbox"/> Grade A: Priority publishing | Google Search: | <input type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B: Very good | <input type="checkbox"/> Grade B: Minor language polishing | <input type="checkbox"/> The same title | <input type="checkbox"/> High priority for publication |
| <input checked="" type="checkbox"/> Grade C: Good | <input type="checkbox"/> Grade C: A great deal of language polishing | <input type="checkbox"/> Duplicate publication | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D: Fair | <input type="checkbox"/> Grade D: Rejected | <input type="checkbox"/> Plagiarism | <input checked="" type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E: Poor | | <input checked="" type="checkbox"/> No | <input type="checkbox"/> Major revision |
| | | BPG Search: | |
| | | <input type="checkbox"/> The same title | |
| | | <input type="checkbox"/> Duplicate publication | |
| | | <input type="checkbox"/> Plagiarism | |
| | | <input checked="" type="checkbox"/> No | |

COMMENTS TO AUTHORS

This study aims to investigate the capacity of *Saccharomyces cerevisiae* and *boulardii* yeasts to reverse or to treat acute stress-related intestinal dysmotility in mice. I have just few comments listed below: 1. In order to improve the readability of the introduction section it needs to be shortened. Maybe the first 2 paragraph can be shortened and a bit more information about the rational and potential significance of the study in the last paragraph. 2. How many mice were enrolled in each arm of the study? Please clarify. 3. Implications for application in humans should be more discussed.

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Name of journal: World Journal of Gastroenterology

ESPS manuscript NO: 28894

Title: Effects of *Saccharomyces cerevisiae* or *boulardii* yeasts on acute stress induced intestinal dysmotility

Reviewer's code: 02840182

Reviewer's country: Turkey

Science editor: Jing Yu

Date sent for review: 2016-07-21 18:42

Date reviewed: 2016-08-16 22:05

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|---|--|--|--|
| <input type="checkbox"/> Grade A: Excellent | <input checked="" type="checkbox"/> Grade A: Priority publishing | Google Search: | <input checked="" type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B: Very good | <input type="checkbox"/> Grade B: Minor language polishing | <input type="checkbox"/> The same title | <input type="checkbox"/> High priority for publication |
| <input checked="" type="checkbox"/> Grade C: Good | <input type="checkbox"/> Grade C: A great deal of language polishing | <input type="checkbox"/> Duplicate publication | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D: Fair | <input type="checkbox"/> Grade D: Rejected | <input checked="" type="checkbox"/> Plagiarism | <input type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E: Poor | | <input type="checkbox"/> No | <input type="checkbox"/> Major revision |
| | | BPG Search: | |
| | | <input type="checkbox"/> The same title | |
| | | <input type="checkbox"/> Duplicate publication | |
| | | <input type="checkbox"/> Plagiarism | |
| | | <input checked="" type="checkbox"/> No | |

COMMENTS TO AUTHORS

The authors investigated the effects of *Saccharomyces boulardii* and *Saccharomyces cerevisiae* on the stress-related intestinal dysmotility in mice. This is a well designed study. The effects of probiotic microorganisms were compared in different doses. The manuscript was well written. I believe that it will contribute to the literature. I think it can be accepted without revision.

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Name of journal: World Journal of Gastroenterology

ESPS manuscript NO: 28894

Title: Effects of *Saccharomyces cerevisiae* or *boulardii* yeasts on acute stress induced intestinal dysmotility

Reviewer's code: 02255435

Reviewer's country: United States

Science editor: Jing Yu

Date sent for review: 2016-07-21 18:42

Date reviewed: 2016-08-17 22:32

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|--|--|--|--|
| <input type="checkbox"/> Grade A: Excellent | <input checked="" type="checkbox"/> Grade A: Priority publishing | Google Search: | <input type="checkbox"/> Accept |
| <input checked="" type="checkbox"/> Grade B: Very good | <input type="checkbox"/> Grade B: Minor language polishing | <input type="checkbox"/> The same title | <input type="checkbox"/> High priority for publication |
| <input type="checkbox"/> Grade C: Good | <input type="checkbox"/> Grade C: A great deal of language polishing | <input type="checkbox"/> Duplicate publication | <input type="checkbox"/> Rejection |
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| | | <input type="checkbox"/> Duplicate publication | |
| | | <input type="checkbox"/> Plagiarism | |
| | | <input checked="" type="checkbox"/> No | |

COMMENTS TO AUTHORS

West et al. used an ex vivo perfusion method to examine effects of the yeasts *S. boulardii* and *S. cerevisiae* on stress induced jejunal and colonic dysmotility in mice. They found that *S. boulardii*, and to a lesser extent, *S. cerevisiae* was able to mitigate restraint stress induced reduction in jejunal transit velocity and frequency as well as increase in colonic transit velocity and frequency. These results are novel and intriguing as *Saccharomyces* yeasts had not been previously shown to counteract the effect of stress on gut motility. Moreover, the authors also provided evidence that yeast supernatant per se had a similar effect as yeast cells on gut dysmotility induced by stress. Data presented in the manuscript are straightforward and support the author's conclusions. The work points to potential usage of *Saccharomyces* yeasts for treatment of gut dysmotility. The authors should speculate on mechanisms underlying the effect of yeast on gut motility despite that finding the bioactive agent(s) in yeast supernatant may be difficult as they mentioned. p.7, line 4 from bottom: "... 27% (PS=93%) for colon" is most likely incorrect as Fig. 1C shows no change in PCC peak value for colon. p. 10, 1st paragraph: The authors consider "indirect modes of action



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involving immune cells" less likely than pharmacological mode of action. What is the reason for this notion?

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Name of journal: World Journal of Gastroenterology

ESPS manuscript NO: 28894

Title: Effects of *Saccharomyces cerevisiae* or *boulardii* yeasts on acute stress induced intestinal dysmotility

Reviewer's code: 00055213

Reviewer's country: United States

Science editor: Jing Yu

Date sent for review: 2016-07-21 18:42

Date reviewed: 2016-08-20 14:30

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|--------------------------|---|---------------------------|-----------------------------------|
| [Y] Grade A: Excellent | [Y] Grade A: Priority publishing | Google Search: | [Y] Accept |
| [] Grade B: Very good | [] Grade B: Minor language polishing | [] The same title | [] High priority for publication |
| [] Grade C: Good | [] Grade C: A great deal of language polishing | [] Duplicate publication | [] Rejection |
| [] Grade D: Fair | [] Grade D: Rejected | [Y] No | [] Minor revision |
| [] Grade E: Poor | | BPG Search: | [] Major revision |
| | | [] The same title | |
| | | [] Duplicate publication | |
| | | [] Plagiarism | |
| | | [Y] No | |

COMMENTS TO AUTHORS

In their paper, "Effects of *Saccharomyces cerevisiae* or *boulardii* yeasts on acute stress induced intestinal dysmotility," Christine West and co-authors, describe their studies in mice that explore the impact of yeast on altered gut function after acute psychological stress. After a 1 hour stress that altered gut motility, the authors killed the mice, and exposed ex-vivo intestinal preps to yeast or yeast supernatants after which they assessed gut motility; results were compared to unstressed gut preps. The authors report that yeast treatment improved stress-induced changes in gut motility, which included effects with opposite valence in jejunal compared with the colonic segments. Most convincingly, this study demonstrates, by assessing ex vivo preps and, in addition, by testing yeast supernatants, that the impact of yeast is mediated locally and may not require an active fungal application. I feel that this paper is suitable for publication and that the representation of data in figures and tables is helpful and suitable for publication. The paper is well-written.