

Dear:

Thank you for your thorough review and salient observations. We have carefully read and addressed the comments from reviewers in the revised manuscript. Please see the point-by-point responses. All the changes are highlighted and we hope the revised manuscript is suitable for publication.

Best regards,

Sincerely,

Haimei Zhao, Ph.D.

Jiangxi University of Chinese Medicine

Nanchang, 330004, Jiangxi, China

Email: [haimei79@163.com](mailto:haimei79@163.com)

Reviewer 1#

This article evaluates the potential mechanism underlying Curcumin-mediated alleviation of colitis induced by dextran sulfate sodium (DSS) in mice by regulating the mTh and mTfh immune homeostasis. The manuscript was written fluently and the experimental design was also rationale. Overall, this article is acceptable in scientific interest, but minor revisions should be done so as to perfect the manuscript. Comments are attached below for reference:

1. In Page 8 Line 170, the statement of "for 3 days for adaptation". Outsourced experimental animals should be kept adaptively for 3-7 days. 3 days maybe a bit short.

**Response:** Thank you very much for your review and guidance! We checked our experimental protocol, and we revised into 7 days. You can find it in the page 8 line 173.

2. In Page 8 Lines 178-180, What is the basis for determining the method of this model.

**Response:** Thank you very much for your review and guidance! The model was successfully built, which were line the followed standard. An OB score

equal to or greater than 2 (positive fecal OB) indicated bleeding in the colonic mucosa and the formation of ulcers. Thus, the colitis model was successfully replicated. The paragraph were recorded in the page 8-9 line 185-187.

3. In Page 20 Line 453, the statement of "Cur is acknowledged as a drug commonly used to treat patients and animals with UC" may be not accurate. Because treatments for inducing remission include 5-aminosalicylic acid drugs and corticosteroids; and maintenance treatments include 5-aminosalicylic acid drugs, thiopurines, biologics (eg, anti-cytokines and anti-integrins), and small molecules (Janus kinase inhibitors and sphingosine-1-phosphate receptor modulators).

**Response:** Thank you very much for your review and guidance! The statement is not accurate. We revised it. Many researches had showed that Cur can effectively treat patients and animals with UC. You can find it in page 20-21 line 463-464.

4. Please use the following references to improve your manuscript: " Efficacy and safety of adjuvant curcumin therapy in ulcerative colitis: A systematic review and meta-analysis." J Ethnopharmacol. 2022;289:115041. doi: 10.1016/j.jep.2022.115041.

**Response:** Thank you very much for your review and guidance! The paper is very excellent. We use it as the third reference to improve our manuscript. You can find it in the reference part, and in the page 5 line 111-113 and 116.

Reviewer 2#

In this article, the authors concluded that curcumin reduced DSS-induced colonic pathological damage, possibly by inhibiting the JAK1/STAT3/SOCS signaling cascade. The title, summary, and introduction are suitable for the manuscript. There are few required language corrections found in the yellow-labeled sections in the attached file. The results in Figure 6 are well presented and represent a good addition to the importance of curcumin.

**Response:** Thank you very much for your review and guidance! We had revised all the yellow-labeled sections. You can find them in page 2 line 47, page 5 line 106, page 18 line 412, page 31 line 692,