

## ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Ophthalmology

**ESPS manuscript NO:** 27376

**Title:** Human ciliary muscle cell responses to kinins: Activation of ERK1/2 and pro-matrix metalloproteinases secretion

**Reviewer's code:** 02544131

**Reviewer's country:** Germany

**Science editor:** Fang-Fang Ji

**Date sent for review:** 2016-05-26 18:51

**Date reviewed:** 2016-06-06 22:42

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 type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		[Y] No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		[Y] No	

## COMMENTS TO AUTHORS

The manuscript "human ciliary muscle cell responses to kinins: Activation of ERK1/2 and pro-matrix metalloproteinases production" by Sharif et al. is a mechanistic study describing the molecular sequences by which activated bradykinin receptors initiate a rapid signalling cascade through ERK1/2 which in turn activate the MMP-1, -2 and -3 production leading to subsequent events (previously published by the authors). The topic of study is good no doubt but not supported by the way of presentation. I would like to point out few points and only after incorporating those points the manuscript might be considered for publication. Major point is the precise data acquisition on the MMPs. According to the abstract the data were obtained by immunoblot analysis. Therefore substantial additional information is needed. 1. The description of antibodies used (rabbit polyclonal anti-pro-MMP Abs) is the only information provided. However for the reader would be helpful if the authors provide information on recognition domain and producer-company and from which company the Abs were purchased. 2. The results are from western blots, however, there are no WB-presented and how the relative increase of the MMPs pro-forms were calculated. (ImageJ?) 3.



## BAISHIDENG PUBLISHING GROUP INC

8226 Regency Drive, Pleasanton, CA 94588, USA

Telephone: +1-925-223-8242

Fax: +1-925-223-8243

E-mail: [bpgoffice@wjgnet.com](mailto:bpgoffice@wjgnet.com)

<http://www.wjgnet.com>

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The analysed cell supernatants were concentrated by Centricon spin columns but the authors provide no information on total protein content. What was the column MW-cut-off and what was the reference protein to assess in the individual samples the differences in secreted pro-MMPs? 4. Why were only the pro-forms determined? Additionally would be helpful to run an in gel-zymography to identify all active forms of MMP-2 and demonstrate at the same time that MMP-9 and its forms are (not) secreted. Minor comment: Abstract: Please change 50K cells /well to 5x 10<sup>4</sup>cells/well Introduction: Last sentence: Referring to a conference in 2012 as a recent meeting (four years ago) is not really recent, please delete recent Methods: Immunoassay for ERK1/2: First line: Please add info: How many cells were seeded and how long it takes to have them at 80-90% confluency. Missing: city and state: Is the Cellul'erk kit from CisBio (from Bedford, MA)? Please change 50k cells /well to 5x 10<sup>4</sup>cells/well

## ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Ophthalmology

**ESPS manuscript NO:** 27376

**Title:** Human ciliary muscle cell responses to kinins: Activation of ERK1/2 and pro-matrix metalloproteinases secretion

**Reviewer's code:** 02446061

**Reviewer's country:** Mexico

**Science editor:** Fang-Fang Ji

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**Date reviewed:** 2016-06-09 08:59

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" 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"/> 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

Dear authors: Your manuscript include information regarding the role of B2-Kinins receptor in the human ciliary muscle. The role of BK\_ERK\_MPPRs is well supported. However, I suggest the deeper introduction and discussion (based on your previous observations as well as observations from other authors in this field). Particularly, I suggest a deeper analysis and discussion of differences found between BK and FR on the evaluated system. But also about the implications of your work in future studies. Additional experiments are required with the aim to support the clear involvement of specific pathways (this should be added). The conclusion should be clearly supported for results, please check this point (edit it if you consider adequate) Please check all the abbreviations are defined, the correct use of units (in agreement of SI) and homogenous expression of Student's T-test, and references.

## ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Ophthalmology

**ESPS manuscript NO:** 27376

**Title:** Human ciliary muscle cell responses to kinins: Activation of ERK1/2 and pro-matrix metalloproteinases secretion

**Reviewer's code:** 00202869

**Reviewer's country:** United States

**Science editor:** Fang-Fang Ji

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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
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		BPG Search:	
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		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

This manuscript describes the signaling of BRAD2 in primary human ciliary muscle cells using pharmacological probes. Specifically, the authors examined the ERK1/2 phosphorylation and pro-MMP secretion upon BRAD2 activation. The manuscript is well written. The evidence seems support the conclusion. Minor issue; 1. Figure 2. The authors mentioned that the ERK phosphorylation is dependent on cell number (20-100K) (Page 5). However, no data for this is presented in this Figure.