PEER-REVIEW REPORT

Name of journal: *World Journal of Diabetes*

Manuscript NO: 88874

Title: Knockdown of RACK1 by Regulating PKC-ε/ROS Effectively Slows the Progression of Early Diabetic Retinopathy

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 02446514

Position: Peer Reviewer

Academic degree: PhD

Professional title: Academic Research, Professor

Reviewer's Country/Territory: Mexico

Author's Country/Territory: China

Manuscript submission date: 2023-10-12

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-10-13 16:56

Reviewer performed review: 2023-10-24 23:10

Review time: 11 Days and 6 Hours

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Novelty of this manuscript	[ ] Grade A: Excellent [ ] Grade B: Good [Y] Grade C: Fair [ ] Grade D: No novelty
Creativity or innovation of this manuscript	[ ] Grade A: Excellent [Y] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	[ ] Grade A: Excellent [Y] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No scientific significance
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [ ] Minor revision [Y] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous
	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The aim of the study was to analyse the role of RACK1 in the development of early diabetic retinopathy (DR). Although the studies in ARPE-19 cells are well done, I have several questions. It is not clear to me why they use the ARPE-19 cells line, neither the selection of the proteins studied, since their previous work their mentioned was done in endothelial cells. Methods." while 400 µM cobalt chloride (CoCl2) (Merck, Germany) was added to the cell culture medium for 24 h before experimentation", please explain the use of CoCl2. How did you induce hypoxia in your model. Section 2.7. Western blotting analysis, the section is redundant. Fig 2, it is rather difficult to observe which authors indicate. It might be usefula an immunohistochemistry for RPE65. On the other hand the image does not contain a bar indicating the size. Did you observed any change in retina thickness? Also it would be appropriate an immunohistochemistry for PKC-ε and/or RACK1 Fig 3. Results are from neural retina not from RPE. Fig 5 and 6. Levels of protein increased are very low, about 15% these are statistically significant but please discuss about the biological meaning. Authors should discuss about the mechanisms by which high levels of PKC lead to increase in ROS production.