

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 53392

Title: PTEN induced kinase 1-induced dynamin-related protein 1 Ser637 phosphorylation reduces mitochondrial fission and protects against intestinal ischemia reperfusion injury

Reviewer's code: 01299180

Position: Editorial Board

Academic degree: PhD

Professional title: Associate Professor

Reviewer's country: United States

Author's country: China

Manuscript submission date: 2019-12-28

Reviewer chosen by: AI Technique

Reviewer accepted review: 2019-12-28 17:06

Reviewer performed review: 2019-12-30 20:57

Review time: 2 Days and 3 Hours

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
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<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language	(High priority)	<input type="checkbox"/> Anonymous
<input checked="" type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input checked="" type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input checked="" type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input checked="" type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

This manuscript has investigated the involvement of PINK and Drp1 in I/R using a mice model. The data presented are of good quality, and the data interpretation are fairly accurate. The only concern is the language. The manuscript can be significantly improved by a more careful editing.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☒ No

BPG Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☒ No

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 53392

Title: PTEN induced kinase 1-induced dynamin-related protein 1 Ser637 phosphorylation reduces mitochondrial fission and protects against intestinal ischemia reperfusion injury

Reviewer's code: 02521807

Position: Editorial Board

Academic degree: PhD

Professional title: Adjunct Professor, Research Scientist

Reviewer's country: Argentina

Author's country: China

Manuscript submission date: 2019-12-28

Reviewer chosen by: AI Technique

Reviewer accepted review: 2019-12-30 13:54

Reviewer performed review: 2020-01-02 15:32

Review time: 3 Days and 1 Hour

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
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<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input checked="" type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	(High priority)	<input type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good		<input checked="" type="checkbox"/> Accept	<input checked="" type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	(General priority)	Peer-reviewer's expertise on the topic of the manuscript:
<input type="checkbox"/> Grade E: Do not publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Minor revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Major revision	<input checked="" type="checkbox"/> General
		<input type="checkbox"/> Rejection	<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The authors clearly demonstrate the role played by mitochondrial dynamics in the events associated with damage induced after ischemia / reperfusion in intestinal cells. They used two models (in vivo and in vitro). Particularly they shed light on the mechanism that involves mitochondrial fission after PINK1-mediated phosphorylation of the DRP1 protein. These events are directly related to ROS levels of mitochondrial origin and from there, with the triggering of cell apoptosis. In this regard, they offer evidence on the role of PINK1 as a protective regulator of mitochondrial function and its potential use as a therapeutic target in lesions associated with ischemia injury.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☒ No

BPG Search:



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PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 53392

Title: PTEN induced kinase 1-induced dynamin-related protein 1 Ser637 phosphorylation reduces mitochondrial fission and protects against intestinal ischemia reperfusion injury

Reviewer's code: 02937396

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Research Fellow, Surgeon

Reviewer's country: Japan

Author's country: China

Manuscript submission date: 2019-12-28

Reviewer chosen by: AI Technique

Reviewer accepted review: 2019-12-29 23:42

Reviewer performed review: 2020-01-07 04:14

Review time: 8 Days and 4 Hours

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
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<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	(High priority)	<input type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good		<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	(General priority)	Peer-reviewer's expertise on the topic of the manuscript:
<input type="checkbox"/> Grade E: Do not publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Minor revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Major revision	<input type="checkbox"/> General
		<input type="checkbox"/> Rejection	<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The author investigated that the mechanism of PINK1/DRP1 pathway in intestinal I/R injury. The Results of this study seemed very interested. However, I think several problems in this manuscript. Major #1. The author wrote "thinking" which should be written in discussion in "Introduction" or "Results" . ie, Our findings demonstrate that PINK1 is a protective regulator on mitochondrial quality control and apoptosis inhibition in the model of intestinal I/R injury, which may provide a potential therapeutic target on intestinal I/R injury.(Introduction), These results suggest that I/R decreased mitochondrial fission related regulators p-DRP1 Ser637 and PINK1. However, the mechanism of mitochondrial fission in intestinal I/R injury is still unclear.(Result 1), Previous studies have revealed that excessive mitochondrial fission can lead to cellular apoptosis and tissue injury under I/R condition in liver, brain and kidney[13-15]. However, whether mitochondrial fission participates in intestinal I/R injury is uncovered. Thus, we founded intestinal I/R model (45-min ischemia and 4-hour reperfusion) in mice, which were pretreated with mdivi-1, a mitochondrial division inhibitor as mentioned above[31]. (Result 2), The imbalance of mitochondrial morphology is an important reason that can cause apoptosis and cell death under stress[32]. Thus we suppose that mdivi-1 may prevent intestinal I/R injury through



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regulating mitochondrial homeostasis. (Result 3). I think pure results should be written in Result, not authors idea. These should be wrtiten in Discussion. #2.Regarding in vivo, how about survival among each groups ? The suthor should state about surviva.l #3. In general, lung injury (SIRDS) derived from I/R injury of intestin is well known. How about lung injury of mice ? Minor #1. In introduction, line 5, IECs should be stated by full spell (first time).

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

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- ☐ No

BPG Search:

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RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 53392

Title: PTEN induced kinase 1-induced dynamin-related protein 1 Ser637 phosphorylation reduces mitochondrial fission and protects against intestinal ischemia reperfusion injury

Reviewer's code: 02937396

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Research Fellow, Surgeon

Reviewer's country: Japan

Author's country: China

Manuscript submission date: 2019-12-28

Reviewer chosen by: Ying Dou

Reviewer accepted review: 2020-03-18 08:10

Reviewer performed review: 2020-03-18 08:16

Review time: 1 Hour

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
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<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejection	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not publish		<input type="checkbox"/> Minor revision	topic of the manuscript:
		<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The revised manuscript is very nice work. So recommend "accept".

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

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BPG Search:

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Reviewer's code: 01299180

Position: Editorial Board

Academic degree: PhD

Professional title: Associate Professor

Reviewer's country: United States

Author's country: China

Manuscript submission date: 2019-12-28

Reviewer chosen by: Ying Dou

Reviewer accepted review: 2020-03-18 02:56

Reviewer performed review: 2020-03-18 13:52

Review time: 10 Hours

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<input type="checkbox"/> Grade E: Do not publish		<input type="checkbox"/> Minor revision	topic of the manuscript:
		<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The authors have addressed my concerns.

INITIAL REVIEW OF THE MANUSCRIPT

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BPG Search:

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Reviewer's code: 02521807

Position: Editorial Board

Academic degree: PhD

Professional title: Adjunct Professor, Research Scientist

Reviewer's country: Argentina

Author's country: China

Manuscript submission date: 2019-12-28

Reviewer chosen by: Ying Dou

Reviewer accepted review: 2020-03-18 21:17

Reviewer performed review: 2020-03-18 21:22

Review time: 1 Hour

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<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejection	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not publish		<input type="checkbox"/> Minor revision	topic of the manuscript:
		<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The manuscript has been conveniently improved.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- ☐ The same title
☐ Duplicate publication
☐ Plagiarism
☐ No

BPG Search:

- ☐ The same title
☐ Duplicate publication
☐ Plagiarism
☐ No