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ESPS Peer-review Report
Name of Journal: World Journal of Biological Chemistry
ESPS Manuscript NO: 6241
Title: Systems biology unravels interferon responses to respiratory virus infections
Reviewer code: 00253956
Science editor: Wen, Ling-Ling
Date sent for review: 2013-10-11 12:04
Date reviewed: 2013-10-16 00:14

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
[ ] Grade A (Excellent)	[Y] Grade A: Priority Publishing	Google Search:	[ ] Accept
[ ] Grade B (Very good)	[ ] Grade B: minor language polishing	[ ] Existed	[ ] High priority for publication
[Y] Grade C (Good)	[ ] Grade C: a great deal of language polishing	[ ] No records	[ ]Rejection
[ ] Grade D (Fair)	[ ] Grade D: rejected	BPG Search:	[Y] Minor revision
[ ] Grade E (Poor)		[ ] Existed	[ ] Major revision
		[ ] No records	

COMMENTS TO AUTHORS

The review article entitled "systems biology unravels interferon responses to respiratory virus infections" by Kroeker & Coombs 2013 details some of the host-virus interactions that influence interferon production. This is a field of therapeutic interest and a review of the literature will be useful to many readers and will warrant publication. However, I would suggest the following items be addressed for review prior to publication: 1.It would be beneficial to readers to understand more explicitly the classes and anti-viral roles of interferons. Hence an introduction that broadly introduces types of interferons and their anti-viral action will provide valuable background for the broad journal audience. 2.Abbreviations and acronyms are used throughout the review, many of which are not defined, so all of these needed to be listed. 3.A final summary diagram of interferon anti-viral activity mechanisms and how they may be evaded by viruses would provide a clear summing up of the review and take home message for the reader.

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ESPS Peer-review Report
Name of Journal: World Journal of Biological Chemistry
ESPS Manuscript NO: 6241
Title: Systems biology unravels interferon responses to respiratory virus infections
Reviewer code: 00289673
Science editor: Wen, Ling-Ling
Date sent for review: 2013-10-11 12:04
Date reviewed: 2013-10-20 22:53

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
[ ] Grade A (Excellent)	[ ] Grade A: Priority Publishing	Google Search:	[ ] Accept
[ ] Grade B (Very good)	[Y] Grade B: minor language polishing	[ ] Existed	[ ] High priority for publication
[Y] Grade C (Good)	[ ] Grade C: a great deal of language polishing	[ ] No records	
[ ] Grade D (Fair)		BPG Search:	[ ]Rejection
[ ] Grade E (Poor)	[ ] Grade D: rejected	[ ] Existed	[Y] Minor revision
		[ ] No records	[ ] Major revision

COMMENTS TO AUTHORS

In this short paper the authors review recent advances in our understanding of the genes and proteins involved in interferon signaling pathways, with an emphasis on systems biology impact in this understanding. There have been a number of other papers published on this topic in recent years, although the amount of genuinely new and conclusive evidence regarding the genetic and biochemical mechanisms underlying an integrative understanding of interferon signaling pathways is, in my view, somewhat limited. My major comment regarding this review is that the authors simply presented a repertoire of published works that were presented in a fragmented manner, making it very difficult to put the pieces together in order to arrive at meaningful conclusions and allow development of hypotheses. Despite these reservations this is a valuable contribution to scientific community. Specific comments 1-The introduction is very short and does not include an adequate introduction on interferon signaling pathways and how systems biology is impacting the advances in this field. For example, a figure of a schematic presentation of the general interferon pathways (including activation of PRRs and IRFs, and mitochondrial response…) would be very helpful. In addition, this reviewer believes that the title of the manuscript is misleading as it does not reflect the content of the review and some acronyms were superfluous. The authors should clearly define what they mean by "systems biology". Do they mean here that systems biology is simply the use of global microarrays and proteomics strategies? Also the introduction (and other sections of the manuscript) contains statements that are confusing and need some explanatory text. For example, the statement " While one of the great advantages to systems biology tools is that they provide a relatively unbiased discovery approach,…." is vague and has no meaning in the context of this review. No reference was provided to support this statement. 2-The manuscript contains too many abbreviations, which makes it very difficult to follow without some explanatory text or figures.