BAISHIDENG PUBLISHING GROUP INC
8226 Regency Drive, Pleasanton, CA 94588, United States
Telephone: +1-925-223-8242 Fax: +1-925-223-8243
E-mail: bpgoffice@wjgnet.com http://www.wjgnet.com

ESPS Peer-review Report
Name of Journal: World Journal of Gastroenterology
ESPS Manuscript NO: 9783
Title: Impact of the gut microbiota on rodent models of human disease
Reviewer code: 00183459
Science editor: Su-Xin Gou
Date sent for review: 2014-02-28 08:24
Date reviewed: 2014-04-28 20:54

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

COMMENTS TO AUTHORS

This is a very interesting review article on the role of the gut microbiota composition on rodent models of human diseases. The topic is very interesting and very original. The manuscript is well written and the figures very clear.

BAISHIDENG PUBLISHING GROUP INC
8226 Regency Drive, Pleasanton, CA 94588, United States
Telephone: +1-925-223-8242 Fax: +1-925-223-8243
E-mail: bpgoffice@wjgnet.com http://www.wjgnet.com

ESPS Peer-review Report
Name of Journal: World Journal of Gastroenterology
ESPS Manuscript NO: 9783
Title: Impact of the gut microbiota on rodent models of human disease
Reviewer code: 02445089
Science editor: Su-Xin Gou
Date sent for review: 2014-02-28 08:24
Date reviewed: 2014-04-28 23:07

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
[ ] Grade A (Excellent)	[ ] 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)	[Y] Grade C: a great deal of language polishing	[ ] No records	[ ]Rejection
[ ] Grade D (Fair)	[ ] Grade D: rejected	BPG Search:	[ ] Minor revision
[ ] Grade E (Poor)		[ ] Existed	[Y] Major revision
		[ ] No records	

COMMENTS TO AUTHORS

This is an interesting review of the effects that gut microbes can have on animal models of host disease. Overall, I thought this was a comprehensive and timely review. I have some suggestions that I think would help with clarity. General Comments In the introductory pages containing the Introduction, General Mechanisms Behind Gut Microbiota Impact, and Examples of the Impact of the Overall Composition of the Gut Microbiota sections, I think subheadings could be useful. For example, the mechanisms that you have discussed include immune-mediated mechanisms, metabolic mechanisms, etc. I think including these types of subheadings would help to organize the section. It would be useful if in the Introductory sections, there was an expanded view of the symbiotic relationship between the host and its gut microbiota. Is it mutualism or commensalism? What might be the benefit of the symbiotic relationship to the microbe? In the sections pertaining to animal models of IBD, it would be helpful if the authors were sure to point out which model of IBD is being used in the discussed studies. This is important, because there are multiple animal models for IBD, including IL-10-/- mice, C. rodentium-challenge, DSS administration, etc. It is also important to make sure that it is clear that these are models of colitis and not actually inflammatory bowel disease (in some instances the model is referred to as IBD in mice). It is interesting to note that there was no discussion of overall diversity measures and how they may pertain to health/disease. Can the authors comment on whether alpha diversity can have detrimental effects for health? In the Discussion, the authors make the point that the same microbes can have different effects on different diseases. The example is given of SFB protecting against Type 1 diabetes, but also enhancing colitic inflammation. Is there evidence that the levels of the microbes, and not just absence vs. presence,

are important? I am not sure what the last two sentences of the Discussion mean. Are the authors implying that we should not screen/eradicate pathogens in our laboratory mice? If so, how would one control for the presence of these diseases in experiments? Specific Comments: The first sentence of the abstract is too long and needs to be broken up into smaller sentences. In general, there are several sentences that are too long and need to be revised. There are also several spelling and grammatical errors that should be corrected. Is there are reference for the statement that because of the huge accumulation of lymphatic tissue the microbiota is not very diverse in the upper gut? It is stated that the LPS from Proteobacteria are important MAMPs to stimulate the immune system. While I agree with this, LPS is found on all Gram-negatives, not just the Proteobacteria. In addition, what about other MAMPS, such as peptidoglycan and flagella? The TLR2 and TLR5 are shown in the figure, but there is not much discussion on these other TLR ligands/MAMPS.