



SDI Review Form 1.6

PART 1:

Journal Name:	<u>British Microbiology Research Journal</u>
Manuscript Number:	2013 BMRJ 4220
Title of the Manuscript:	FERMENTATION PRODUCTS OF A β-MANNANASE-PRODUCING BACTERIA INHIBITS SELECTED POULTRY BORNE PATHOGENS
Type of the Article	Research Paper

General guideline for Peer Review process is available in this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

- This form has total 7 parts. Kindly note that you should use all the parts of this review form.



SDI Review Form 1.6

PART 2: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<u>Compulsory</u> REVISION comments	1. The inhibitory effect could be due to the peptides produced by these bacteria but not the β-mannanase activity, so you should identify the exact chemical working on these pathogens. 2. Isolate 1A and X3 showed the highest β-mannanase activity, however, X3 showed quite different promotional effects on pathogens compared with 1A. Can you explain the mechanism or what substance in the medium caused this difference? And what is the reason to screen isolates by mannanase activity? 3. The activity differences in result may be due to the amount of manno-oligosaccharides, so the concentration of manno-oligosaccharide and the relationship between the concentration and inhibitory activity should be studied.	In my conclusion it was clearly stated that fermentation products obtained from mannolytic activity of these mannanase-producing bacteria might possess antibacterial properties. Therefore, it is recommended that much research be done on this topic to elucidate specific fermentation products responsible for the inhibitory action using this work as template. Isolate X3 might possess ability to convert the antibacterial compounds in the fermentation products to a form that can be utilized for growth promotion. Mannanase producing bacteria had been reported to possess inhibitory potentials. Although the information was scanty and mechanisms of action was not ascertained. I believe this work can serve as template for further research into mechanisms of action and particular inhibitory compound involved. The relationship between the concentration of mannolygosaccharides and inhibitory action was discussed in the manuscript.
<u>Minor</u> REVISION comments	Page 2, line 67: add a space after 50 Page 3, line 73: add a space after 50 Page 4, line 112: IB should be 1B	OK



SDI Review Form 1.6

<u>Optional/General</u> comments	In this study, several bacterial isolates were revealed to have β -mannanase activity and inhibitory effects on poultry pathogens, in which isolate 1A showed the highest effect. It is a nicely conducted study and isolate 1A could be used as both enzyme supplementation and probiotic. However, some explanations should be added to make the results more clearly.	OK
---	--	----