



SDI Review Form 1.6

Journal Name:	British Microbiology Research Journal
Manuscript Number:	2014_BMRJ_12342
Title of the Manuscript:	A cross sectional study on prevalence of antibiotic resistance and efflux pump inhibition of isolated cultures from poultry, dairy farms and MTCC strains from reservoirs
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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

This manuscript describes a set of experiments that do, indeed, constitute novel work but I believe that further work would be necessary to support the data interpretations that are presented.



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PART 1: 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)
Compulsory REVISION comments	This manuscript would require considerable revision before being re-submitted for publication consideration. While I recognize that this manuscript represents considerable effort on the part of the authors to conduct the experiments, to interpret the data and prepare the manuscript. I feel that the data presented are not sufficient to support the conclusions that are drawn from them (the Conclusions section of the paper does not clearly state conclusions derived from the work). I understand that this is a culture-based set of experiments but without some evaluation of genes involved in efflux pump mechanisms of antibiotic resistance, there is insufficient evidence to suggest that the observed trends in antibiotic resistance in the various bacterial species is specifically due to efflux pump expression. It is unclear to me whether the dairy samples were collected from cows or from buffaloes. It is also unclear to me how the chi-squared statistical analyses were used to compare prevalence of efflux pump overexpression, cross-resistance and MIC decline in the presence absence of piperine and plumbagin. There are several places where words appear to be missing in the sentences and it is important to correct the spelling error in the title of the paper as highlighted above. In general, the references are appropriately cited and consistent (with the exception of reference 27). Please note that the author of reference 2 is Stuart B. Levy.	Title has been changed. The present work is a preliminary study on antibiotic resistance prevalence and efflux pump, using basic microbiological techniques. It is already mentioned in 2.4.1 sub heading that Efflux Pump Inhibitors (EPI) are compounds which do not have activity of their own but have ability to reduce MIC (2 to 8 times) or reverse antibiotic resistance (Stavri et al. 2007). Piperine and Plumbagin do not have any activity of their own but when synergistically tested with the antibiotics declined the MIC of antibiotic by 2 or 4 fold. The reason could be due to potential efflux pump inhibition, further valid confirmation could be carried out using molecular biology studies. It is clearly mentioned in subheading Isolation and identification of bacteria that the dairy samples were collected from buffalo's milk. Done It is also appropriately cited Done
Minor REVISION comments		
Optional/General comments		