



SDI Review Form 1.6

Journal Name:	Advances in Research
Manuscript Number:	Ms_AIR_26332
Title of the Manuscript:	Calcium ion binding characteristics of porcine pancreatic alpha amylase outside active site domain and implications: Theory and experimentation.
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>)



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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	<p>According to the comments mentioned just above</p> <p>The manuscript entitled as “Calcium ion binding characteristics of porcine pancreatic alpha amylase outside active site domain and implications: Theory and experimentation” is an interesting one by based on its conception; however the experimentation which has been applied by the author(s) did not meet the generally approved standards in the field of enzyme kinetics.</p> <p>In more details: {a} author(s) have performed their analyses under conditions where the well known Michaelis-Menten equation is not valid, i.e. the prerequisite of $[E] \ll [S]$ is not fulfilled in this work; {b} as a consequence of the previous {a}, all the estimated rate constants seems more likely that are not valid; {c} potentially, the previously mentioned errors to have been incorporated in the calculations; {d} author(s) do not mention, in the text, the value of the Arrhenius pre-exponential factor in their particular cases; {e} in all cases of linear fittings, which are depicted in the figures 1,3-6, the estimated R^2 is very far apart from a unit-value, indicating either a poor fitting and/or considerably few data points; {f} in figure 2, author(s) try to extract information by using quite a few number of data points, in contrast to the well known experimentation in similar cases; {g} in chapter 3.4.2., there is nothing more than a title, and thus I cannot guess both the used statistics, as well as their appropriate use and robustness; {h} authors should ameliorate the syntax of their text and to try to</p>	<p>Thank you for your observation. But please understand that assays on enzyme may not be intended to reflect Michaelis – Menten kinetics; therefore the scope of the work is not strictly kinetic investigation that can lead to the determination of Michaelis – Menten constant obtainable at saturating concentration of the substrate. Thus relative activities as explained in the text were used to investigate the binding characteristics of calcium ion in particular; references in this regard are clearly exemplified by the works of Tanaka and Hoshino (2002) and Nielsen (2003) etc.</p> <p>I strongly admit that the coefficient of determination is lower than unity; this may be as a result of the use of improvised water bath during research that needs to be mentioned in methods sub-section. Use of gelatinized starch for feature investigation using automated water bath may give better fitting with few number of data point which may be occasioned by the number different temperatures at which assay was carried out - 4 different temperatures may not be bad per say.</p> <p>I shot myself on the foot by not copy-</p>



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	express more precisely their results and conclusions.	pasting the statistical work carried out. The costly error is corrected and reflected in that subsection. Pre-exponential factors are hereby included. The results and conclusions were revisited for amendment.
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		