



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">International Journal of Biochemistry Research &amp; Review</a>                                |
| Manuscript Number:       | 2014_IJBcRR_11718                                                                                          |
| Title of the Manuscript: | Age-Dependent Effect of Cyclic Feeding Regimen on The Level of Serum Apolipoproteins in Young and Old Rats |
| 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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>Compulsory</b> REVISION comments<br>1) Line 42-43<br><br>2) Line 47<br><br>3) Line 47-49<br><br>4) Line 58-62<br><br>5) Line 64-67<br><br>6) Line 79-81<br>7) Line 85-87<br><br>8) Line 90<br><br>9) Line 145 | <p><b>What effects CR produce? It should be explained whether it increase or decrease the metabolic effects or decrease/increase in ROS produce metabolic effects.</b></p> <p><b>Reference error, please mention the correct reference.</b></p> <p><b>The statement in line 47 and 48 is contradict to the statement in lines 31 to 36 and 49-51. When there is increased consumption of calories, there must be increased metabolic activities which in turn lead to increase ROS. The ROS decrease life span.</b></p> <p><b>The sentence should be rearranged and simple to convey the meaning. Similarly, mention the physiological state reflecting by apolipoproteins.</b></p> <p><b>The animals are grouped on the basis of age, but no reference of age related difference in metabolic activity is mentioned. Please mentioned the reference.</b></p> <p><b>How many animals in one group? Please mention.</b></p> <p><b>Did the body weight of the animals calculated? Also mention any significant difference between the two different age group animals?</b></p> <p><b>What is the rationale behind different amount of food to different age group animals?</b></p> <p><b>In the F1 total fasting period was 14 days, why the authors mentioned here 10 days? Similarly, 30% weight loss of which one and what was the actual weight?</b></p> | 1) The paragraph (line 42-43) was removed from manuscript in response to the remark of reviewer 4.<br>2) The paragraph (line 47) was removed from manuscript in response to the remark of reviewer 4.<br>3) The paragraph (line 47-49) was removed from manuscript in response to the remark of reviewer 4.<br>4) The sentence has been rearranged (line 46-47).<br>5) The references are mentioned at lines 47 and 50.<br>6) The number of animals in each group is mentioned in the section 2.2, line 82.<br>7) Additional figure (Fig. 1) reflecting the variations of animal weight was included in the manuscript. Statistically significant differences are marked with the asterisks. The body weights of control group animal are indicated in section 2.2, line 79.<br>8) The explanation was included in section 3.1, line 127-132.<br>9) All mistakes were corrected and true durations of fasting and refeeding are indicated in Fig. 1., together with the observed weight losses. |



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| 10) Line 149     | <b>It should be young ones not the old rats.</b>                                                                                                                                                                                                   | 10) This mistake was corrected.                                                                                                                                                                                                                                                      |
| 11) Line 150-152 | <b>The sentence needs explanation.</b>                                                                                                                                                                                                             | 11) The explanation was included in section 3.1, line 127-132.                                                                                                                                                                                                                       |
| 12) Line 152-156 | <b>It should be 14 days why 20 days here? Similarly, what is the F0 age? Second, When the weight returns to normal in both age groups, it shows similar metabolic response., so no difference of age then why the amount of feed is different?</b> | 12) All corrections have been made. The age of control animals (AL) was 3 and 19 month for young and old animals, respectively, as indicated in section 2.2, line 79-80. The data were re-analyzed, the weight return was found only for old age-group as indicated at line 132-140. |
| 13) Line 220-221 | <b>This need to explain why it is like this? However, when we see the weight gain, which is similar in both groups.</b>                                                                                                                            | 13) The explanation is given at line 266-276.                                                                                                                                                                                                                                        |
| 14) Line 201-202 | <b>Big question mark. The hypothesis is not clear????</b>                                                                                                                                                                                          | 14) As substantiated at lines 191-195 the alteration of apoA-I level cannot arise only from the change in gene expression. This led us to assume that some posttranslational mechanisms underlie the observed decrease in apoA-I level.                                              |
| 15) Line 247-250 | <b>F2 in old animals, no reduction???? Why explain??</b>                                                                                                                                                                                           | 15) All proper amendments have been made. At this stage we cannot give clear interpretation of this phenomenon.                                                                                                                                                                      |
| 16) Line 252-254 | <b>How acceleration takes place in one group of animal as compared to other when both are exposed to the same circumstances. If it is related to age, then it should be reflected in other parameters as well.</b>                                 | 16) As stated at line 253-257 there could exist age-related changes in clearance rate of apoB-100. However, clearance behaviour of apoA-I, apoE, and apoB-100 requires further investigation.                                                                                        |
| 17) Line 269-270 | <b>What is the process of adaptation? What is its relationship with age?</b>                                                                                                                                                                       | 17) The exact adaptation mechanisms invite further investigation.                                                                                                                                                                                                                    |



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| <p><b>Minor</b> REVISION comments</p> <ol style="list-style-type: none"> <li>1) Line 31-33</li> <li>2) Line 38-41</li> <li>3) Line 160-162</li> <li>4) Line 192-196</li> <li>5) Line 274</li> <li>6) Line 317-318</li> <li>7) Line 320-322</li> <li>8) Line 333-335</li> </ol> | <p><b>Please rephrase the sentence to justify the clear meaning.</b><br/> <b>Please clarify the sentence,” the active response to food scarcity that is resulting in metabolic programming with beneficial effects” opposite in meaning to the first part of the sentence.</b><br/> Rephrase the sentence to clear the meanings.</p> <p>Incomplete sentence??</p> <p>The <b>organism</b> should be replaced by <b>animal</b>.</p> <p><b>Please rephrase the sentence to justify the clear meaning.</b></p> <p><b>Please rephrase the sentence to justify the clear meaning.</b></p> <p><b>Please rephrase the sentence to justify the clear meaning, especially the 20days refeeding. It is misinterpreted here while comparing the results for 14 days</b></p> | <ol style="list-style-type: none"> <li>1) The sentence was rephrased as follows (line 27-31): “Nowadays, caloric restriction (CR), reduction of daily energy intake by 15-40%, is the only universally recognized non-genetic way of increasing the <b>average</b> and maximum life-span and health-span of almost every eukaryotic organism tested [6] as well as a very powerful approach <b>to</b> prevention and therapy of a wide variety of age-related and chronic diseases and cancer [7].”</li> <li>2) The sentence was rephrased as follows (line 33-36): “However, over the past decades, a growing body of evidence suggests that the beneficial effects of CR <b>are</b> not simply the passive consequence of lower energy intake, but is the active response to food scarcity that is resulting in metabolic reprogramming with beneficial effects [4].”</li> <li>3) The sentence was rephrased as follows (line 153-154): “Remarkably, neither IF1 nor R1 induced any significant changes in apoA-I level of old animals.”</li> <li>4) The sentence was corrected as follows (line 189-191): “It has been shown that obesity-related decrease in apoA-I blood level is the result of down-regulation and increased clearance of this protein [12].”</li> </ol> |
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|                                         |                | <p>5) The mistake has been corrected.</p> <p>6) The sentence was corrected as follows (line 123-124): "The less pronounced activation of apoE expression in the case of old animals may be the result of trivial decrease of its expression with age [15]."</p> <p>7) The sentence was rephrased as follows (line 326-327): "The long-term effect of IF in young rats with such elevated level of apoE is in keeping with the lower risks of atherosclerosis and CVD [34]."</p> <p>8) The sentence was corrected as follows (line 338-340): "(i) IF for ten days with 30% weight loss results in the 1.3-fold decrease in serum apoA-I content in young, rather than in old rats and after the refeeding of at least 20 days the level of this protein in young rats undergoes 1.8-fold increase."</p> |
| <b><u>Optional/General</u></b> comments | Not applicable |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |