Reviewer's report

Title: High cocoa polyphenol rich chocolate may reduce the burden of the symptoms in chronic fatigue syndrome

Version: 1 Date: 14 July 2010

Reviewer: Kelly Pritchett

Reviewer's report:

Reviewer's Comments

-Major Compulsory Revisions

• Background: The background information is very brief. The authors propose that “polyphenols and regulation of neurotransmitters might reduce the burden of CFS”. The authors need to elaborate on the mechanisms behind why the chocolate (cocoa) may be beneficial for CFS. What leads the authors to believe this?

• Background, 2nd paragraph: The purpose of the study should be stated and clearly defined.

• Methods, 1st paragraph: What is the basis for the requirement for subjects to have a score of 10 on the Chalder Fatigue Scale? How was this scale administered to the subjects?

• Methods, 2nd paragraph: States that patients taking more than 10gm of chocolate were excluded. How was this measured?

• Methods: How was diet controlled in this study? Furthermore, subjects were instructed not to consume any additional chocolate during the study. How was this ensured?

• Results: The authors mention Table 4, but it is missing from the document. Please modify accordingly

• Discussion: The discussion is vague and does not incorporate the findings of other related literature. The authors discuss the issue of weight, and how physical activity may have increased. This would be interesting for the reader to know, Was this measured?

-Minor Essential Revisions

• Abstract, Background, 1st sentence: “for different conditions” is vague.

• Abstract, Methods, 1st sentence: replace “Undertaken” with “conducted”

• Abstract, methods, 3rd sentence: reword the last part of the sentence.. followed by 8 weeks of intervention

• Background, 2nd sentence: change suggested to “reported:

• Background, 3rd sentence: reword for clarity
• Background, 2nd paragraph, 3rd sentence: Chocolate or “cocoa” has been known to increase neurotransmitters, etc.? Remove the word “itself”
• Background, 2nd paragraph, 4th sentence: Is this the authors hypothesis? The sentence needs to be restated in hypothesis form. The basis for this hypothesis should be described.
• Background, 2nd paragraph, 5th sentence: remove “in comparison”
• Methods, 2nd paragraph: change “patients” to “subjects”
• Methods, 3rd para, 1st sentence: reword- prior to participating in the study
• Methods, 3rd paragraph, 3rd sentence: the last portion of the sentence needs rewording
• Methods, 4th paragraph: The 1st sentence is lengthy and could be split up for clarity.
• Methods, 4th paragraph, last sentence: The sentence needs rewording, perhaps stating “A taste trial was performed prior to the study to confirm that subjects could not distinguish between the two treatments.”
• Methods, 5th para, 1st sentence: “calculations were done using the” should be removed
• Methods, 5th para, 2nd sentence: Why is there a range for the glycemic index for the iso-caloric chocolate?
• Results, 1st paragraph, 1st sentence: Perhaps, should be reworded to state “descriptive characteristics for the subjects are displayed in Table 4.” The authors also state in the abstract that only 5 subjects completed both study arms. The authors do not discuss “why”? The next sentence may be redundant if it is listed in Table 4.
• Results, 1st paragraph, 4th sentence. Should state “A similar trend…”
• Results, 2nd paragraph: The authors refer to the 2 treatments as “legs” and need to be consistent throughout the paper for clarity.
• Discussion, 1st paragraph, 2nd sentence: The sentence needs rewording
• Discussion, 2nd paragraph, 2nd sentence: The authors mention the “active phase” for the first time. What is the active phase?
• Discussion, 3rd paragraph, 3rd sentence: The sentence needs rewording for clarity

-Discretionary Revisions
• Abstract, conclusion: change wording to “this study suggests that…” remove the “increase in
Weight”
• Background, 2nd paragraph: The authors suggest that “chocolate” contains a mixture of polyphenols. Would “Cocoa” be a more appropriate term than chocolate, because not all chocolate has the equivalent flavanoid content?
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.