

Reviewer's report

Title: Impact of caloric and dietary restriction regimens on markers of health and longevity in humans and animals: A summary of available findings

Version: 1 **Date:** 2 August 2011

Reviewer: Linda Mehta

Reviewer's report:

I. Major Compulsory Revisions

a. I have none to suggest.

II. Minor Essential Revisions

a. I have revisions on the level of copyediting to recommend: (1) The phrase "in regards to" should be changed to "in regard to." I noticed this twice, once in the second paragraph of the introduction (second line from the bottom) and once in the third paragraph under the heading "Daniel fast," second to last sentence. (2) The authors might consider less liberal use of dashes as punctuation. The final sentence of the second paragraph under the heading "Alternate-Day Fasting and Animals" begins with "The ability of ADF to retard or prevent altogether the development of many morbidities — including: cardiovascular disease," The dash followed by the colon is more than is needed. It would be better to punctuate the sentence as follows: "The ability of ADF to retard or prevent altogether the development of many morbidities, including cardiovascular disease, kidney disease, cancers, and diabetes, may also explain some of the observed increases in longevity." (3) In the line immediately following the heading "Caloric Restriction and Humans," "due to" should be changed to "because of."

b. In the fourth paragraph under the heading "Alternate-Day Fasting and Humans" I question the phrase "...which consisted of either 320 or 380 kcals for men and women, respectively...." Is this correct that men got the lower calorie shake and women got the higher calorie shake? This is what the "respectively" implies.

III. Discretionary Revisions

a. Currently, much of the biomedical literature on religious fasting is, as the authors suggest, focused on the Christian and Islamic traditions and to some extent on Jewish tradition, but this neglects substantial literature on traditional medicine as practiced in Tibet, India, and China, to name three important systems of traditional medicine. Much of the literature here is contributed by historians and anthropologists, although some biomedical studies have been done. I recommend at least mentioning the importance of religious fasting in these traditions as well as in monastic communities in many religions and suggesting that future studies should examine the effects of these religious/philosophic approaches to fasting as well.

Level of interest: An article of importance in its field

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 I have no competing interests.