Reviewer’s report

Title: "Changes in energy expenditure associated with ingestion of high protein, high fat versus high protein, low fat meals among underweight, normal weight, and overweight females."

Version: 1 Date: 22 October 2006
Reviewer: Antonia Trichopoulou

Reviewer’s report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Although this is a well done study, power limitations (only 6 overweight and 3 under weight volunteers) puts in doubt the validity of associations reported as non-significant and implicitly null, and rises questions about “significant” results generated after the undertaking of almost hundred statistical tests. I urge the authors who possess or have access to sound statistical expertise, to attempt to model their data, so that they will end up making only a few statistical tests. Spline regression appears appropriate, but my expertise in statistics is limited. The authors may also wish to consider focusing on proportional changes rather than absolute ones.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

It makes little sense to report in the text and the abstract that body weight is significantly higher among overweight than among normal weight and underweight individuals (and several other statements along these lines). The authors do not adequately address (they do not even give data on) the essentially null results when metabolic rates are calculated per Kg of fat free mass.

The references are not properly numbered.

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field
Quality of written English: Acceptable
Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.