Reviewer's report

Title: Peroxisome proliferator-activated receptor gamma and spermidine/spermine N1-acetyltransferase gene expressions are significantly correlated in human colorectal cancer.

Version: 1 Date: 4 May 2006
Reviewer: Debora L Kramer

Reviewer's report:

General
Several reports have demonstrated that the polyamine catabolic enzyme SSAT contains PPARgamma response elements in its promoter region. Based on this background, the investigators have undertaken to understand the relevance of either SSAT or PPARgamma expression to human colon tumor development. Towards this end, they obtained normal and tumor mucosal tissue from 40 colorectal patients, and asked whether parameters related to polyamine metabolism correlated to PPARgamma expression. Here, as previously established, polyamine biosynthetic enzymes and pools are elevated in tumor versus normal colon mucosa. Further, there was a positive correlation found between SSAT mRNA and PPARgamma mRNA levels, and both were significantly higher in tumor compared to normal tissues. The differences between K-ras positive and negative data was marginal and thus, added little to the story. The authors present a reasonable interpretation of the data without overstating their findings. In the discussion the authors acknowledge the relationship between PPARgamma levels and SSAT levels is correlative and refer to the study by Ignatenko et al (ref #15) as experimental evidence that their relationship is causal.

To date, correlations found between SSAT and PPAR expression in clinical tissues lends support for further experimentation to establish their interdependence (i.e. the role of PPARgamma in regulating SSAT expression and activity in disease).

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

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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)

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Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests