Reviewer's report

Title: Fractal Dimension of chromatin is an independent factor for survival in melanoma

Version: 1 Date: 2 February 2010

Reviewer: Jane L Messina

Reviewer's report:

-Major Compulsory Revisions

I disagree with the statement in the abstract and introduction that routine clinicopathologic factors are not useful in determining an individual's prognosis. Multiple studies have demonstrated their usefulness in uni- and multivariate models, and they are currently used in the clinical setting as the most accurate predictors of prognosis. We could certainly improve on the current factors, but the wording dismisses their importance entirely and should be altered.

Results section: Clark level of the study group was reported to range from 2 to 6, but there is no Clark level 6.

Results section: Mitotic rate was reported as number of mitoses/10 high power fields, but the standard method of reporting mitotic rate for melanoma is number of mitoses/sq mm. To be in line with other publications on the prognostic value of mitotic rate, the reporting of mitotic rate should be in the standard method.

-Minor Essential Revisions

In the introduction, the meaning of the phrase "were significant at worse prognostic factor in univariate Cox regressions" is unclear. Please revise.

In the background, the statement "malignant melanoma is the most lethal tumor of skin" can be disputed, since many believe the Merkel cell carcinoma is the most lethal tumor of skin. Please revise.

The statement "As event we defined death related directly or indirectly to malignant melanoma. Patients who expired without metastatization entered the study as censored cases." should be corrected for grammatical errors. I would suggest "Melanoma specific survival was calculated, and patient death not related to melanoma was censored."

-Discretionary Revisions

The concept of fractal dimension is somewhat difficult for a non-mathematician to understand. The paper would benefit if a more thorough explanation of the biologic phenomenon that lead to increased FD is provided.
**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Not suitable for publication unless extensively edited

**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.