Reviewer's report

Title: Chance mechanisms affecting the burden of metastases

Version: 1 Date: 29 July 2005

Reviewer: Victor Moreno

Reviewer's report:

General

This paper is a simulation excercise on metastasis number and size based on a proposed model for both variables. The author has published previously 2 papers on these variables based on real data where the models and parameters were established. In the submitted manuscript the authors uses previous models and parameters to simulate data and describes the observed distribution of the number of metastases and its size.

The description of the results obtained in the simulation, obviously corresponds to the parameters used in the simulation and don't provide any relevant information. We have to believe that the parameters are correct or refer to previous papers. There, we find a series of studies, mainly bases on animal models, with different tumors mixed.

The author concludes that the number and size of metastases are very disperse and that the variability observed could be just chance, but these results just reflect that the parameters in the simulation correspond to a disperse distribution. Since the parameters seem to have been estimated from a mixture of experiments, the conclusion that variation could be attributed to spurious events is not reasonable.

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

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

Discretionary Revisions (which the author can choose to ignore)

What next?: Reject because scientifically unsound

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.