Reviewer's report

**Title:** The CS1 segment of fibronectin is involved in human OSCC pathogenesis by mediating OSCC cell spreading, migration, and invasion

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**Reviewer:** Steven Akiyama

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The manuscript by Kamarajan, Garcia-Pardo, D'Silva, and Kapila “The CS1 segment of fibronectin is involved in human OSCC pathogenesis by mediating OSCC cell spreading, migration, and invasion” describes the localization of the fibronectin alternatively spliced CS1 segment in human oral squamous cell carcinoma (OSCC) and characterization of possible functions of the CS1 segment. Immunohistochemical analyses were performed with normal human and oral squamous cell carcinoma tissue. OSCC cells were also assayed in cell spreading, migration, and invasion. This is a potentially interesting study and the manuscript is very well-written. The questions posed by the authors are well-defined, and the methods are appropriate and well-described. However, it is the judgment of this reviewer that more control experiments are required prior to acceptance for publication, as specified below. These controls will also help clarify the interpretation of the observations reported here.

Specifically, the following Major Compulsory Revisions are recommended:

1. The authors need control panels in Figs 1B, 1C, and 1D plus in Table 1 to show that total fibronectin is not changed or to show that the changes in the amount of CS-1 in the tumors is not due to there simply being differing amounts of fibronectin present. Unless the authors can show this, then their observations mean that there is simply less fibronectin present in the high grade tumors, which is not really a novel observation.

2. The “scrambled” peptide control reported to have been used in Figs 2 and 3 is not really a true scrambled control for the CS1 peptide. The sequence of the control peptide is given as SIETPVA whilst the CS1 peptide is EILDVPST. Therefore, the scrambled control is missing an aspartic acid and has an Ala reside that is not present in the CS-1 peptide. The experiments in Figs 2 and 3 should be repeated and reported with a true scrambled control peptide. Without scrambled peptide controls that have the same amino acid composition as the CS-1 peptide, it is impossible to show that the effects are due to the specific sequence of the CS-1 peptide and are not nonspecifically due to the charge on the CS-1 peptide.

**Level of interest:** An article whose findings are important to those with closely related research interests
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 that I have no competing interests.