Reviewer's report

Title: A New Lumbar Posterior Fixation System, the Memory Metal Spinal System. An In-vitro Mechanical Evaluation.

Version: 1 Date: 11 March 2013

Reviewer: Vijay K Goel

Reviewer's report:

The manuscript evaluate a posterior fixation system fabricated from Shape memory Alloy and compares its performance with a predicate device using the ASTM 510k missing vertebral body model. Please address the following issues:

Provide a figure of the devices assembled in plastic vertebral body models.
Cite the ASTM standard used for testing
Please explain the reason for adapting a square cross-sectional shape of the rod for the device as opposed to circular section in the predicate device. How clinically relevant is this shape?