

Development of custom lead shield and strainer for targeted irradiation for mice in the gamma cell chamber

ABSTRACT

We presented a development of a custom lead shield and mouse strainer for targeted irradiation from the gamma-cell chamber. This study was divided into two parts i.e., to (i) fabricate the shield and strainer from a lead (Pb) and (ii) optimize the irradiation to the mice-bearing tumour model with 2 and 8 Gy absorbed doses. The lead shielding was fabricated into a cuboid shape with a canal on the top and a hole on the vertical side for the beam path. Respective deliveries doses of 28 and 75 Gy from gamma-cell were used to achieve 2 and 8 Gy absorbed doses at the tumour sites.