

AbstractID: 11906 Title: Applications of millimeter precision small animal radiation

Recent technical advances in small animal radiation devices allow laboratory irradiation of rodents under cone-beam CT guidance with, in some cases, sub-millimeter precision. This provides the opportunity for novel avenues of radiobiological research. Examples include radiation-enhanced immunotherapy, normal tissue radiation response modeling, and localized radiation ablation of neural stem cell populations. Highlights from recent experiments will be reviewed and future proposed technical developments will be discussed.