

Synchrotron Based In-Vivo Tracking of Implanted Mammalian Cells

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One of the great challenges in contemporary medical imaging is to visualise the position of small clusters of cells in 3-D, and in-vivo. The ability to track implanted targeted cells as they grow or metastasise in a natural environment will be invaluable for many areas of biomedical research. We have started to work on a protocol which will lead to this ability. Using glioma as a model we have embarked on developing imaging techniques at synchrotron facilities, which will potentially provide few cell sensitive CT imaging at the micron resolutions, and with low enough dose for small animal testing. This presentation will show the latest results from synchrotron CT encephalography on some animal models.

KEYWORDS: Glioma, cell tracking, synchrotron x-ray imaging