The large interest of these companies shows that an important market for heavy ion therapy is expected. This will be beneficial for many patients for whom heavy ion therapy provides a higher chance for the cure of their cancer.

Many of the radiobiological and physical data necessary for tumor therapy are also of interest for space research. This is especially true for the evaluation of long-term effects like the induction of secondary tumors, genetic mutations, or transformations. Experiments investigating these topics could be shared by both communities. But it is very clear from the onset that the clinically dedicated accelerators will not have much free time for these experiments, and it is also likely that the most relevant beams for space research, like Fe-ions, will not be produced at the clinical machines. Therefore, a separate, dedicated research program must be carried out according to the needs and requirements of research to provide space radiation protection.

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Article Reviewed
Posted to THREE, September 30, 2010