

Medical Physics and Radiation Research

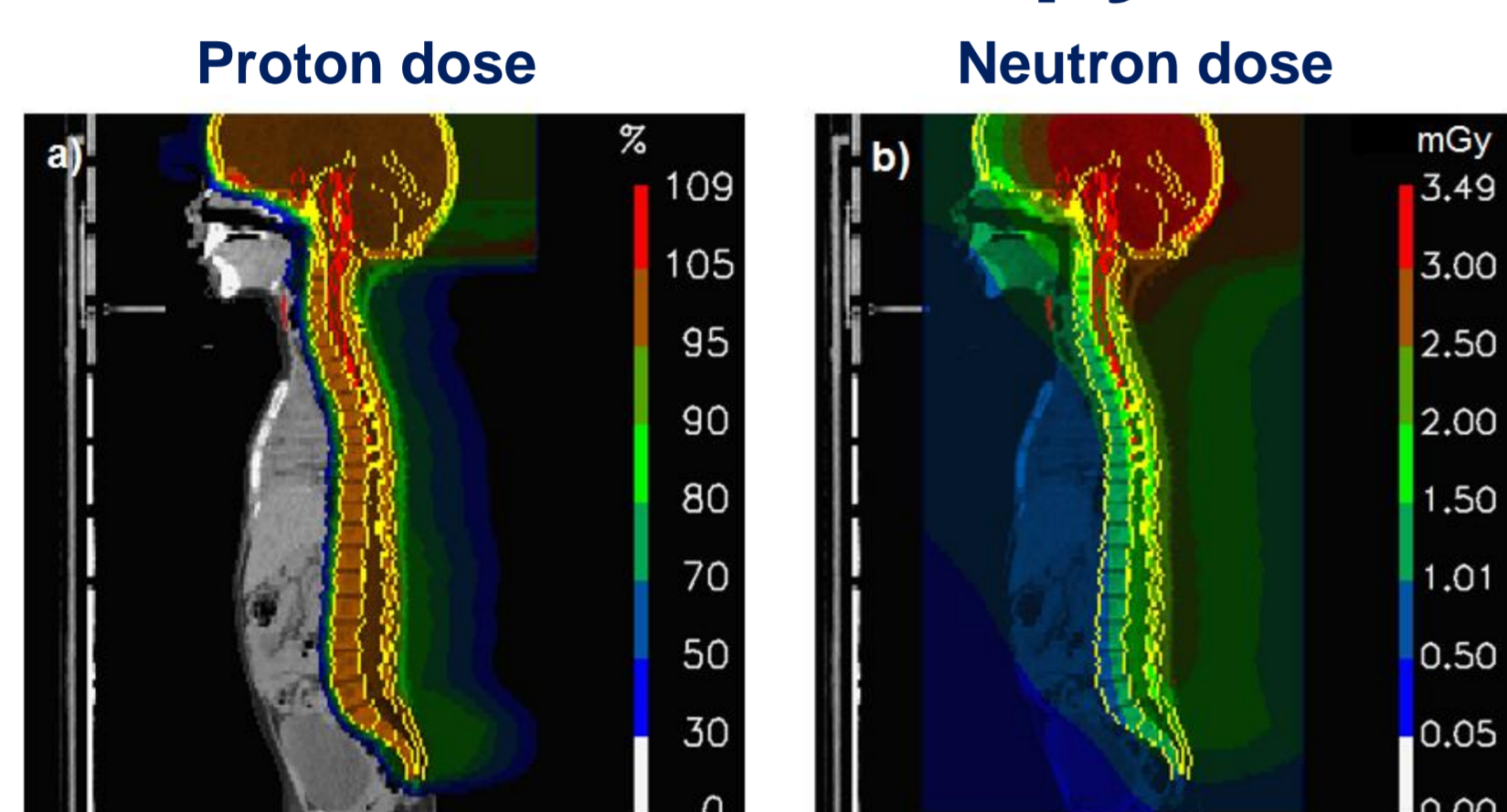
Current research topics

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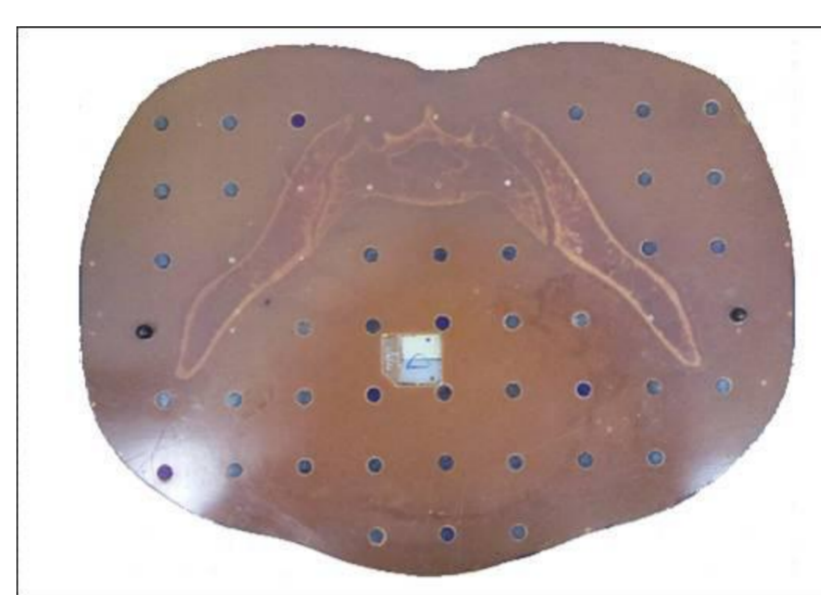
Neutron dose models for radiotherapy



Out-of-field dosimetry and dose modeling



Determination of the unwanted dose in radiotherapy patients:
(i) Development of new experimental methods (TLD)
(ii) Development of radiation interaction models



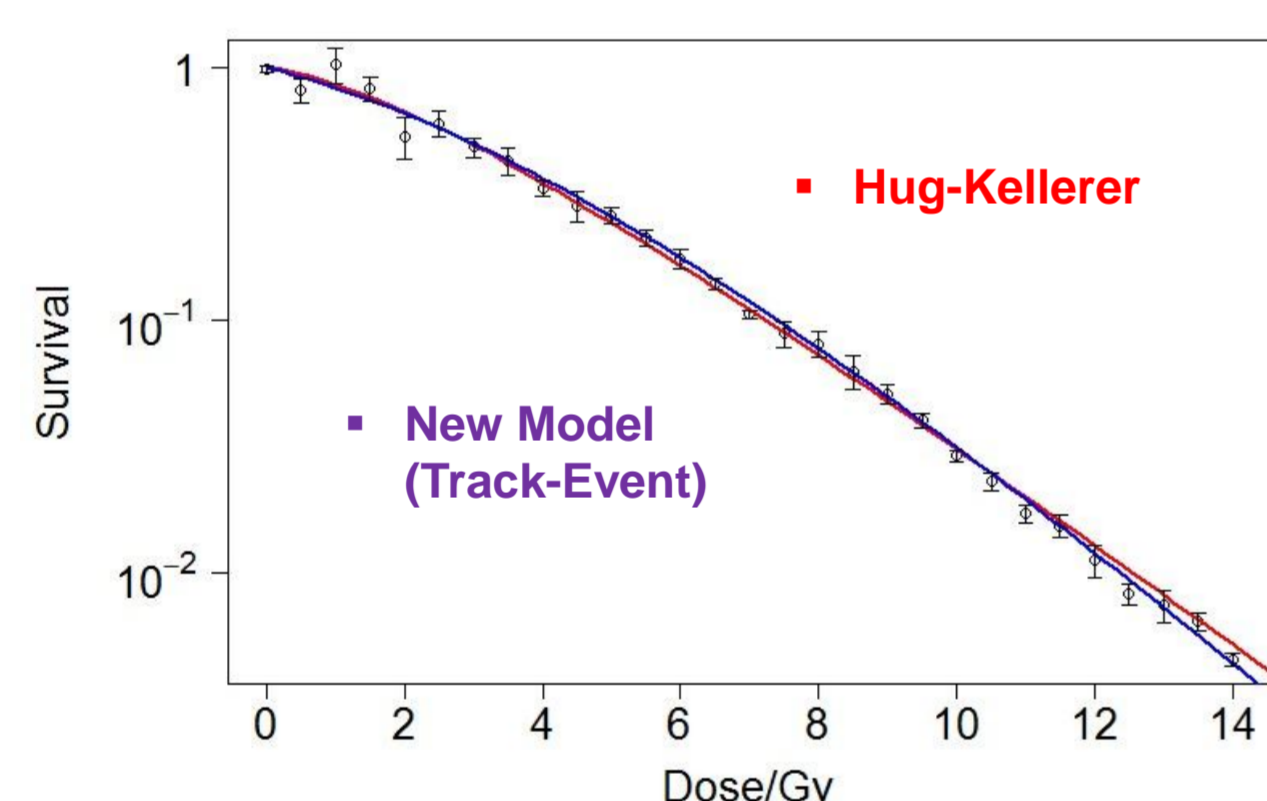
Nanodosimetry

Measurements of ionizations in DNA volumes to quantify radiation damage

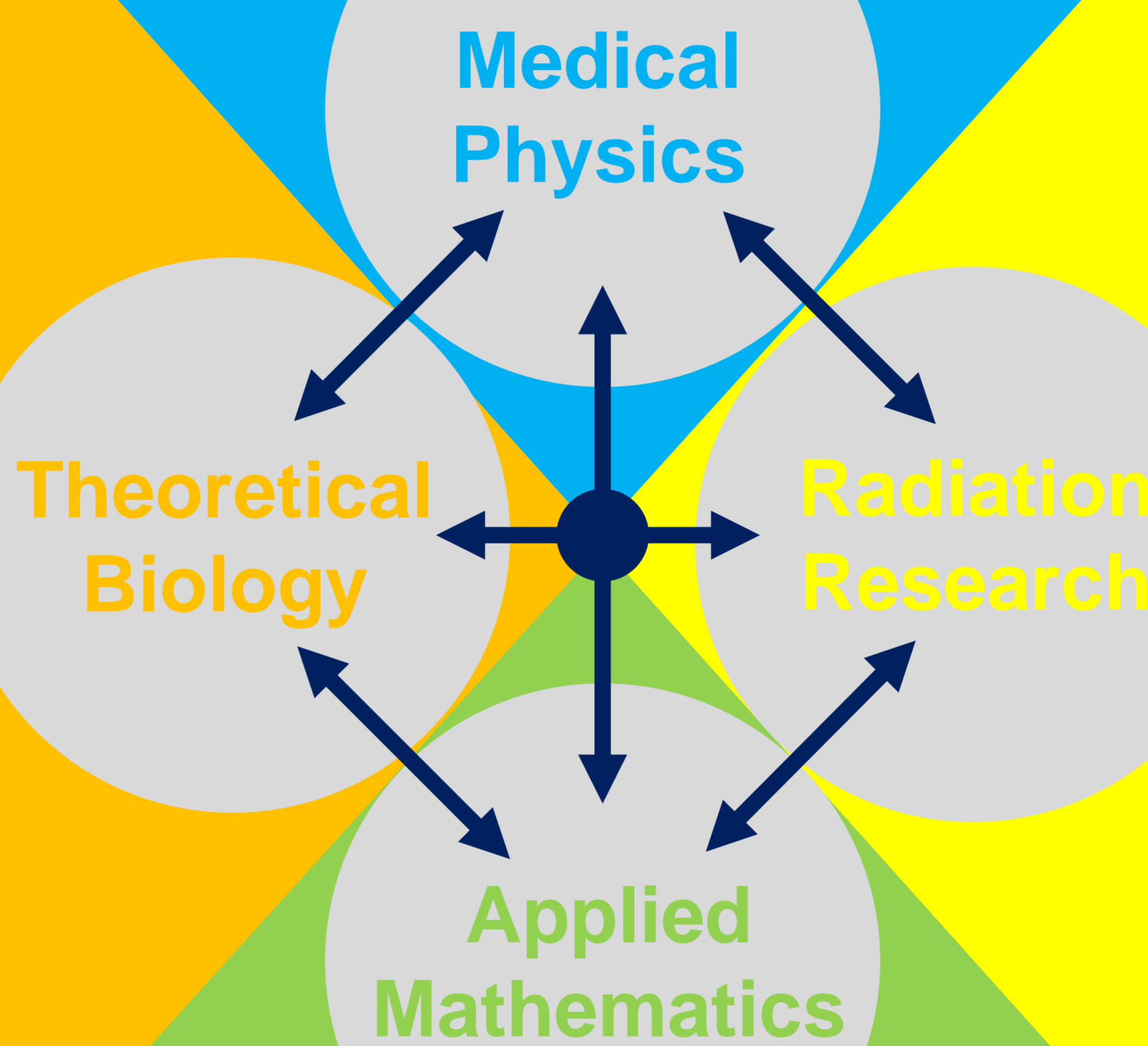
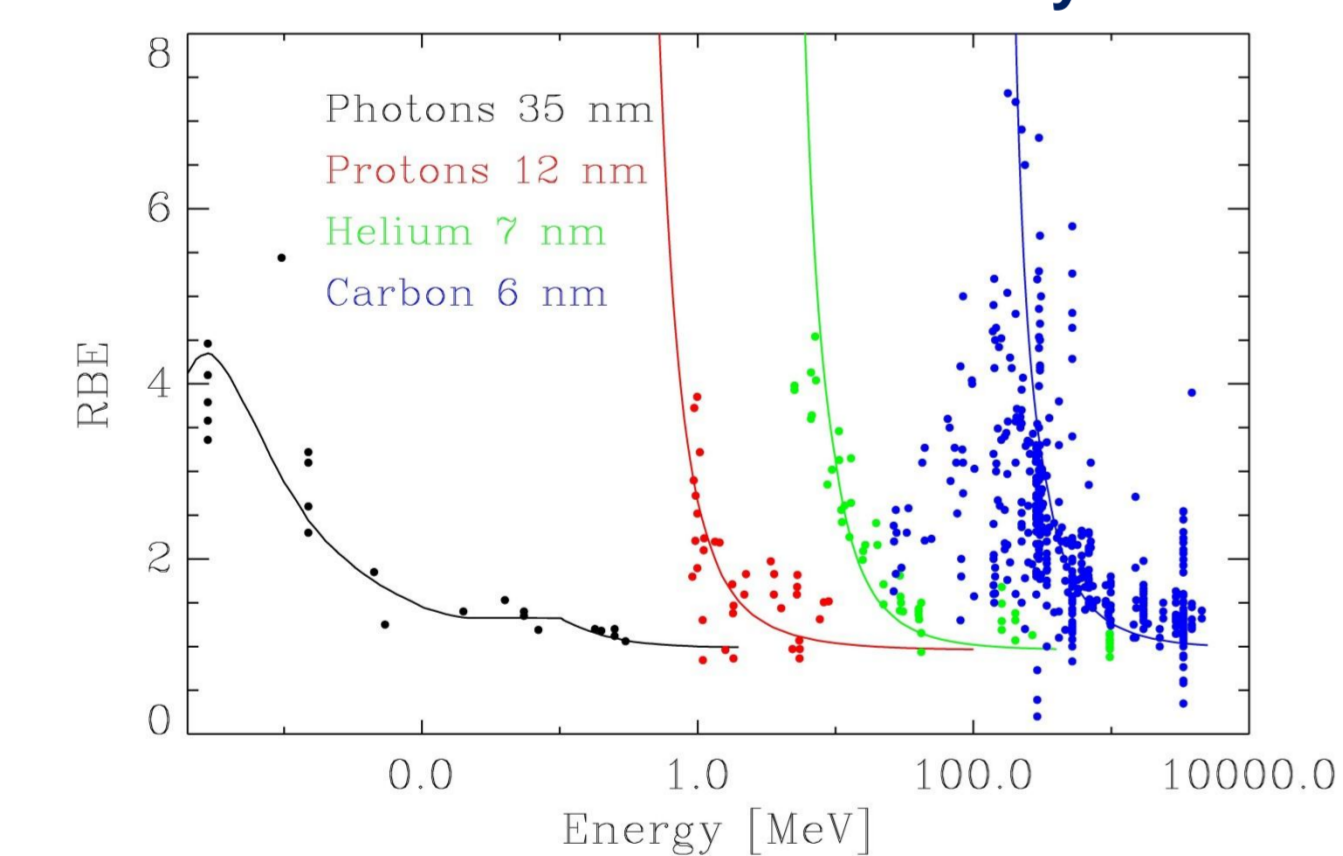


Cell kill, RBE and normal tissue complication

Cell survival models for large radiation dose



Biological effectiveness of different radiations based on nanodosimetry

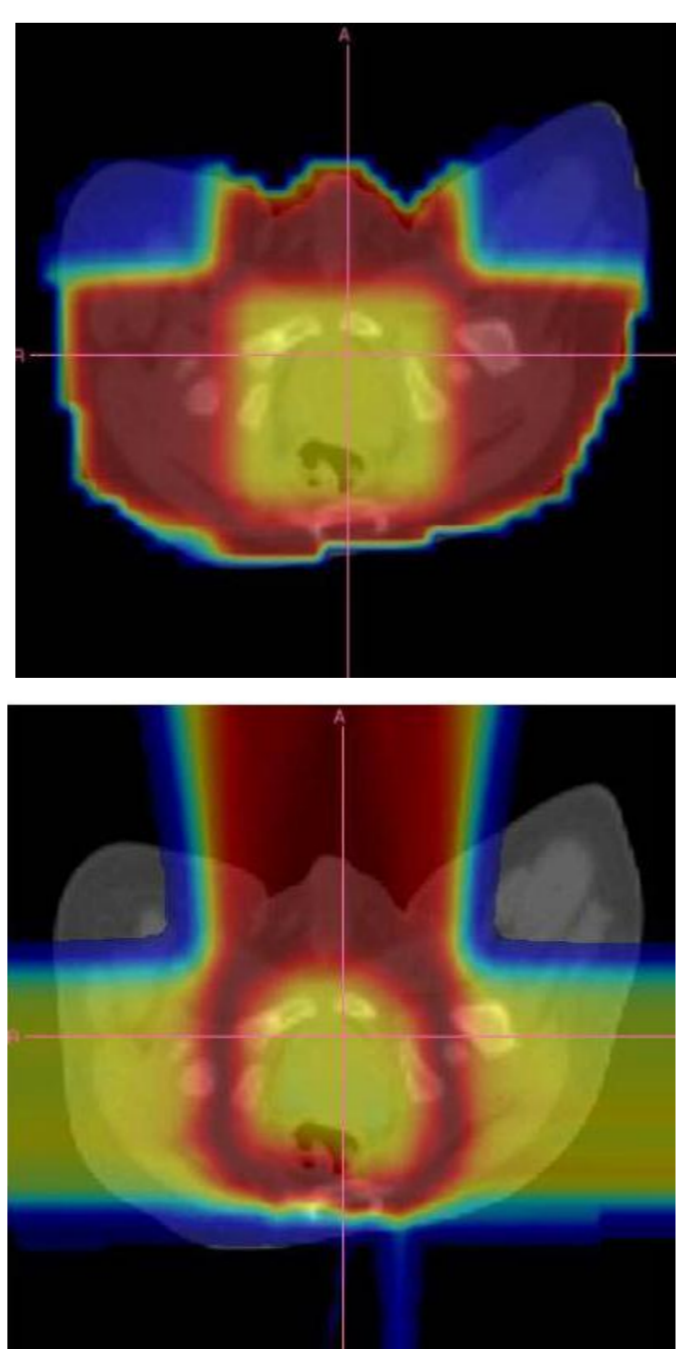
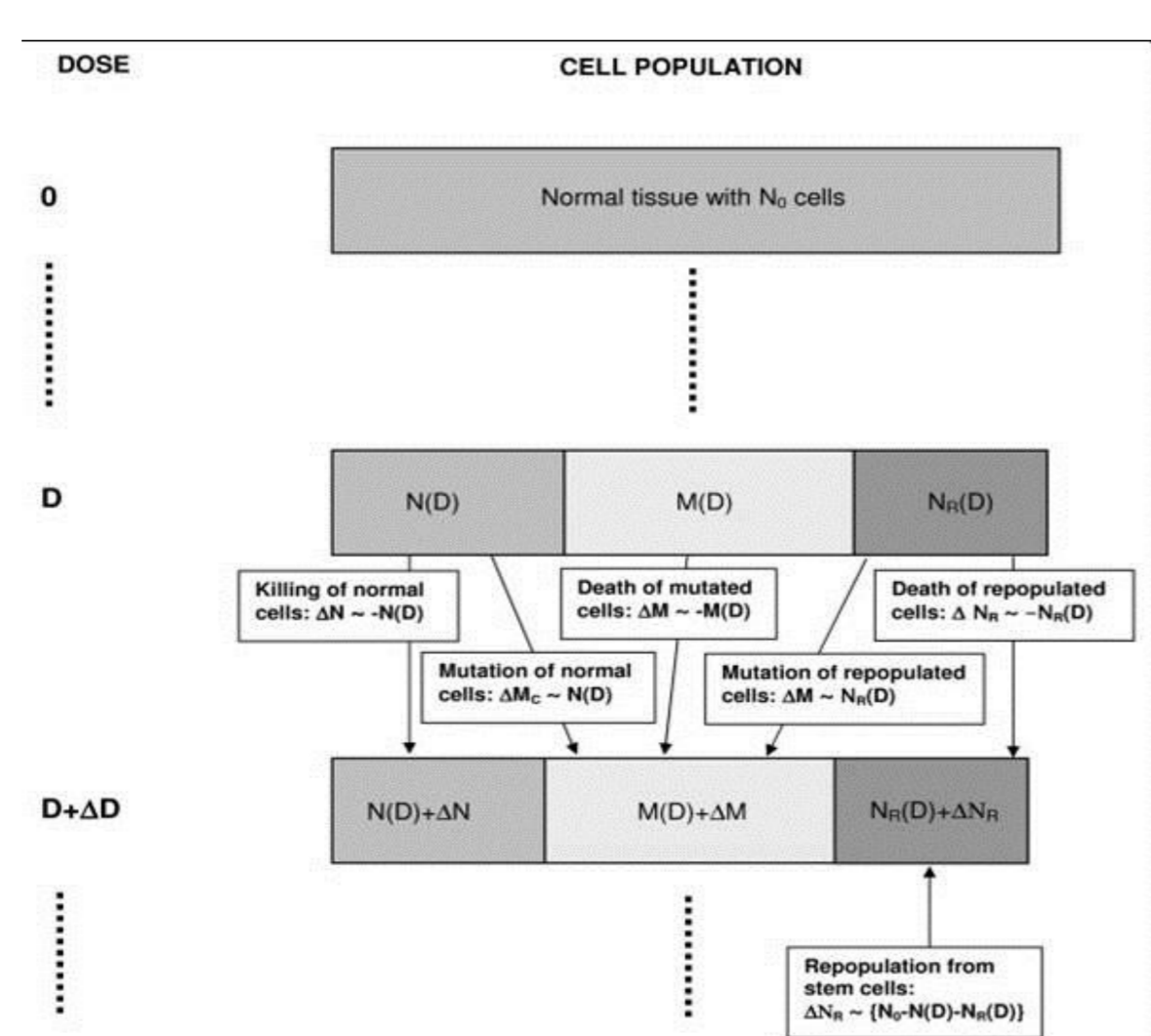


Space radiation risk

Development of models for long term missions



Bio-Physical models for cancer induction



Proton tomography

Development of equipment and theory for reconstruction

