Radiolabelled peptides and peptide conjugates for imaging and therapy of cancer

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Radiolabelled compounds are increasingly used for imaging and treatment of cancer. Cell penetrating peptides can be used to direct radiolabelled antibodies to intracellular targets for imaging. We used this technique to allow in vivo imaging of DNA damage. Additionally, peptides labelled with beta-emitting isotopes can be used for radionuclide therapy, PSMA-targeted therapy of prostate cancer, and Lutathera treatment of neuroendocrine cancer. However, the radiobiology of these treatment is less understood. Using DNA damage imaging, and combination treatment screens, we investigated how these treatments may be enhanced.