**Facile ligation of the fac-99mTc(CO)3 core using a triamine-tridentate chelator**

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Radionuclide therapies have become valuable tools for cancer therapy and imaging. One of the more promising cores for use in radiotherapeutics is the fac-99mTc(CO)3 coordination-complex, this as a result of its ideal gamma wave emission and simple coordination chemistry. Rhenium, the next element down in group 7, is frequently used as a stand in for research into potential stable 99mTc complexes due to its radioactivity and relative expense. Several methods exist for ligating group seven tricarbonyl cores to organic molecules; however, few show high fidelity to single isomers and resilience to reactive amino acid residues. Additional challenges are associated with the delicate hydrophilicity / hydrophobicity balance that must be achieved for radionuclide-complexed organic molecules to reach target tissues and to be excreted in safe timeframes. Development of a small symmetrical triamine tridentate ligation system has shown promise in addressing the aforementioned challenges associated with 99mTc conjugation. Of specific importance is the modularity of the central region of this dien-ligation complex. Addition of small peptides and coumarinoid fluorophores has been achieved with relative ease, in respectable yields, using peptide synthesis techniques that are readily available. Targeting molecule addition to the central amide of the dien-ligand backbone may result in rapid development of highly targeted gamma ray emission tumor imaging agents that are both less toxic than modern radio-therapies, and more capable of imaging ever-smaller neoplastic clusters.