

" Transition metal complexes as MRI contrast agent."



First row transition metal ion complexes show great promise as magnetic resonance imaging contrast agents. The large choice of macrocycles and donor groups for transition metal ions makes it feasible to design contrast agents for applications in molecular imaging. In our group, we have prepared macrocyclic complexes of Fe(II)/Fe(III), Co(II)/Co(III) and Ni(II) with the goal of controlling oxidation state, spin state and rigidity. These complexes are under development as MRI contrast agents that function through paraCEST (paramagnetic chemical exchange saturation transfer). Applications of transition metal ion paraCEST agents as temperature, pH or redox-responsive magnetic resonance imaging will be discussed.

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Invitée par Eva Jakab Toth

Vendredi 15 janvier 2016 à 11h
Salle de conférence du CBM