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(54) Title: ISOMERICALLY PURE ¹⁸F-LABELLED TETRAHYDROFOLATES

(57) Abstract: The present invention is directed towards isomerically pure ¹⁸F-labelled (6S)-or (6R)-5-methyltetrahydrofolate radio-pharmaceuticals, wherein the phenyl group within the folate structure, has been replaced by an ¹⁸F-labelled N-heterocycle, for use in diagnostic imaging of a cell or population of cells expressing a folate-receptor in vitro or in vivo or for use in monitoring of cancer or inflammatory and autoimmune diseases and therapy thereof.



WO 2018/172243 A1