



# Contrast Agents for Magnetic Resonance Imaging (MRI) for the Diagnosis of Tumors

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The MRI contrast agents for tumour diagnosis are the main topic of this review. As longitudinal relaxation time (T1) and transverse relaxation time (T2) MRI contrast agents, several low molecular weights Gd3+-based complexes and dextran-coated super paramagnetic iron oxide (SPIO) nanoparticles have been employed to diagnose clinical tumours. New kinds of chelates for T1 MRI contrast agents and combinations of low molecular weight T1 MRI contrast agents with various kinds of carriers have been researched to further increase the sensitivity of MRI. The formation of secure coating layers of SPIO and unique super paramagnetic particles with greater relativity values have been investigated using a variety of materials. To enhance the capacity of both T1 and T2 contrast agents to target tumour, many types of ligands have been used. Furthermore, MRI contrast agents for tumour metabolism detection were investigated.

### Keywords:

### Introduction

I (E), (EC), (C), (I), (E), (I). E, B, A, D, C, B, 1, I, 2, G 3+, 2+, F 3+ 1. C

, G 1 / 2, (E), 2, 5-7, A (1)

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01-Mar-2023, Manuscript No: jcd-23-92088, 04-Mar-2023, Pre QC No: jcd-23-92088(PQ), 18-Mar-2023, QC No: jcd-23-92088, 22-Mar-2023, Manuscript No: jcd-23-92088(R), 29-Mar-2023, DOI: 10.4172/2476-2253.1000173

Singh S (2023) Contrast Agents for Magnetic Resonance Imaging (MRI) for the Diagnosis of Tumors. J Cancer Diagn 7: 173.

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**Acknowledgements**