

New trends in the development of MRI contrast media

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After the successful phase of non-specific paramagnetic chelates, a second generation of contrast agents with improved tissue targeting ability has arisen. In this effort toward cellular and molecular imaging, the research aims not only at increasing the relaxivity of the magnetic centers, leading to the development of superparamagnetic crystals, but also at indentifying the proper vectors, a strategy which may take advantage of the techniques of molecular biology. Several new systems carrying sugar residues have been prepared and characterized among which, some exhibit prolonged vascular residence time and specific affmity for inflammation sites.