

New dendrimer as contrast agent in magnetic resonance imaging (MRI)

CSIC has developed a new dendrimer that can be used as a contrast agent (CA) in magnetic resonance imaging (MRI). This new CA is non-toxic and it is expelled from live tissues in hours, making it the best option when periodical MRI tests are needed.

Industrial partners are being sought to collaborate through a patent license agreement.

An offer for Patent Licensing

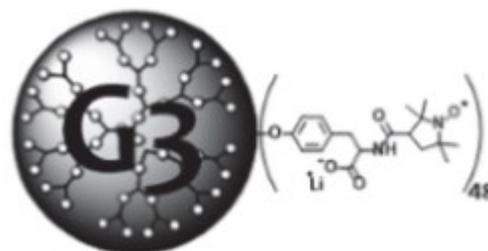
Non-toxic contrast agent for magnetic resonance imaging

MRI is a well-known imaging technique for noninvasive medical diagnosis and follow-up. CA provides images of different tissues, tumours and related pathological conditions of the same tissue in excellent detail due to their enhanced different brightness.

The most widely used CAs are based on metal ions like Gadolinium (Gd III). Gd can be considered as a toxic metal, it accumulates in some tissues (brain, bones, kidneys, etc) and there is a relation between Gd administration and the development of nephrogenic systemic fibrosis.

The new CA is a dendrimer with proxyl radicals. It is a Gd free non-toxic molecule with high solubility in biological fluids, long term contrast activity and it is expelled in hours from live tissues without accumulate in any of them.

The characteristics of the new CA make it the ideal option when repeated MRI test are needed.



CA dendrimer estructura

Main innovations and advantages

- Metal free non-toxic CA based on a dendrimer with proxyl radicals.
- Non accumulation of CA in tissues, fastly expelled and easily degraded.
- Same contrast as Gd based CAs with 4 times less concentration.
- Allows repeated imaging studies without health effects.

Patent Status

European patent application filed suitable of international extension

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