

Supplementary Information

UV-triggered photoinsertion of contrast agent onto polymer surfaces for in vivo MRI-visible medical devices

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1- Conditions of complexation

Table S1. Conditions of complexation.

DOTA-GA anhydride	4-azido-aniline HCl	pH of complexation mixture	Time of complexation	Temperature	Complexation efficacy
1	1.2	5.0	3h	60°C	14%
1	1.3	6.5	6h	RT	19%
1.5	1	6.5	4h	40°C	26%
1.2	1	7	12h	40°C	30%
1.1	1	5.1	16h	80°C	30%

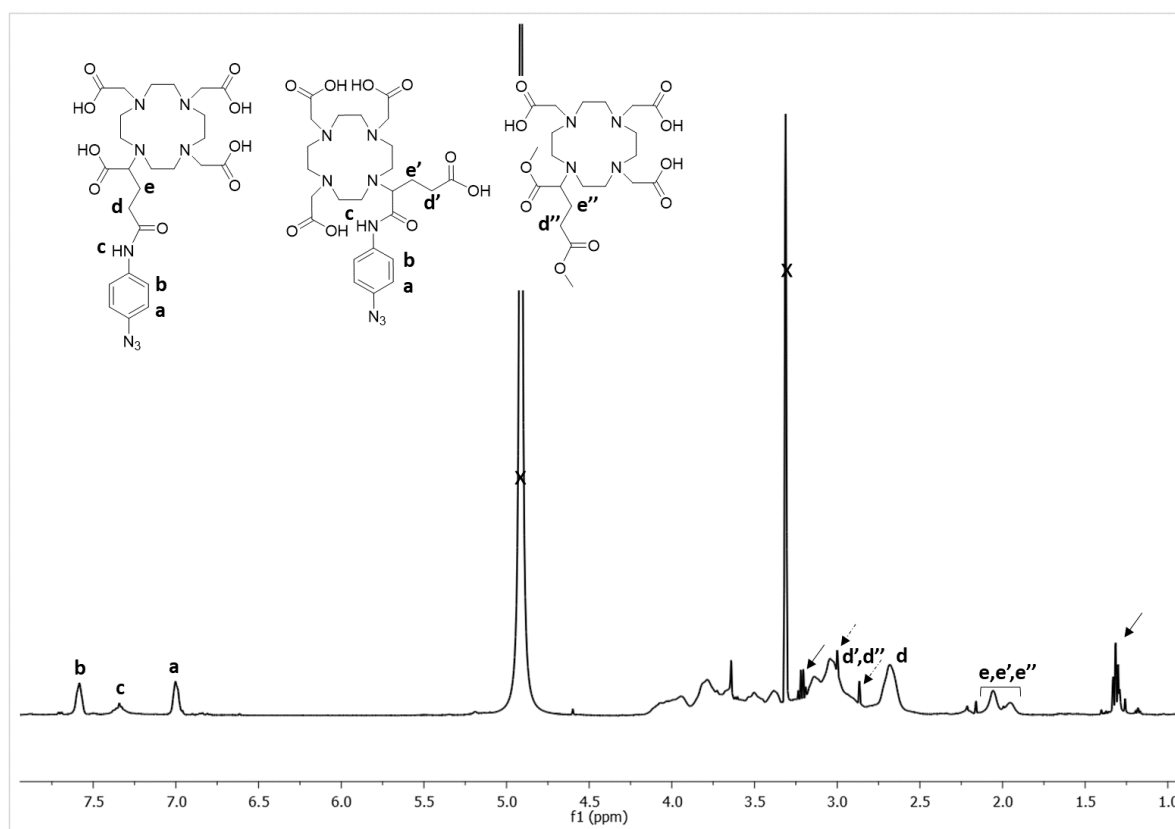


Figure S1. ^1H NMR of DOTA- N_3 in MeOD (crosses correspond to residual water and MeOH ; plain arrows point to residual Et_3NH^+ ; dashed arrows point to residual DMF). Signal of protons d are in the peak at 2.7 ppm, signals of protons d' and d'' are in the broad signal between 2.8 and 3.0 ppm. Methyl ester DOTA derivative is generated during the treatment in MeOH/ CHCl_3 (see experimental part)

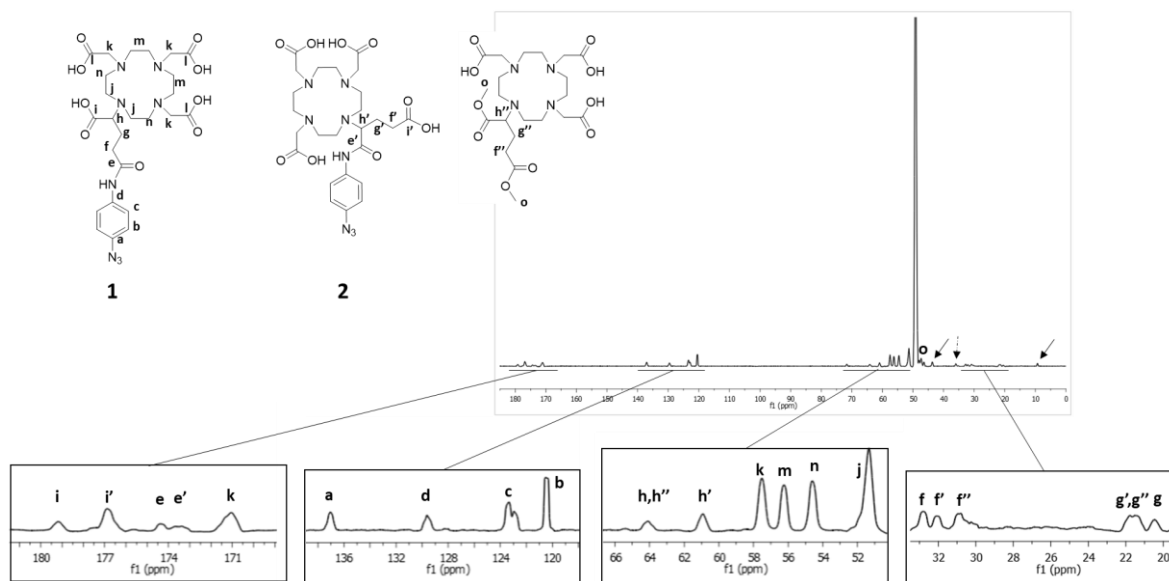


Figure S2. ^{13}C NMR of DOTA- N_3 in MeOD (plain arrows point to residual Et_3NH^+ ; dashed arrow point to residual DMF). Methyl ester DOTA derivative is generated during the treatment in MeOH/ CHCl_3 (see experimental part)

2- L929 proliferation control experiments

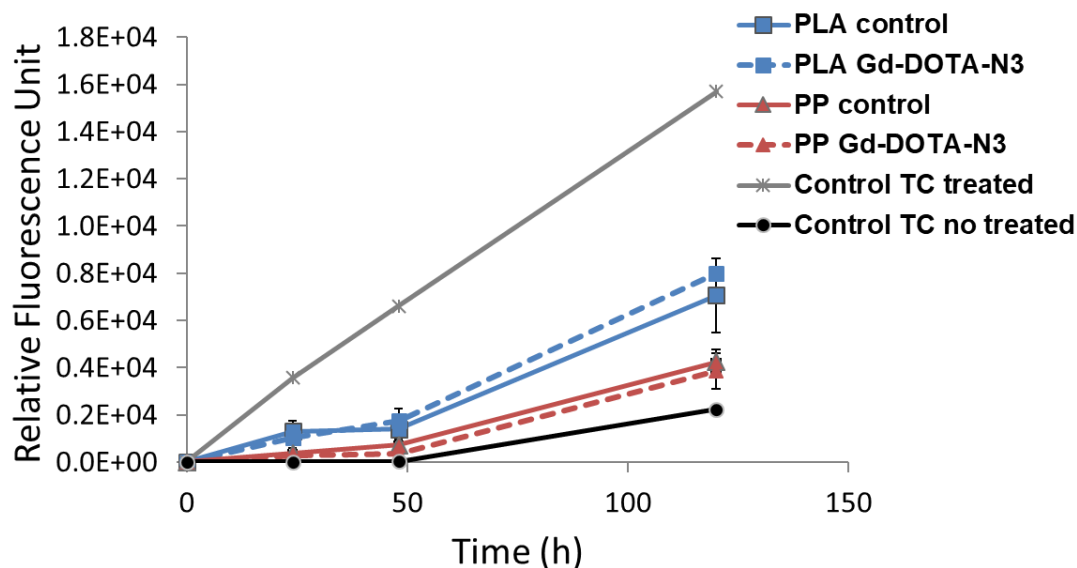


Figure S3. Cytocompatibility of polypropylene (PP) and polylactide (PLA) modified with Gd-DOTA- N_3 compared to TC controls. (A) Cytotoxicity effects of polymer on L929 cells after 48h evaluated by PrestoBlue[®] assay (data are expressed as median and interquartile range with maximum and minimum data points, $n = 4$); and (B) L929 proliferation on modified surfaces compared to pristine surfaces at 1, 2, and 5 days (data are expressed as means \pm SD and correspond to measurements with $n = 4$).

3- Biodistribution

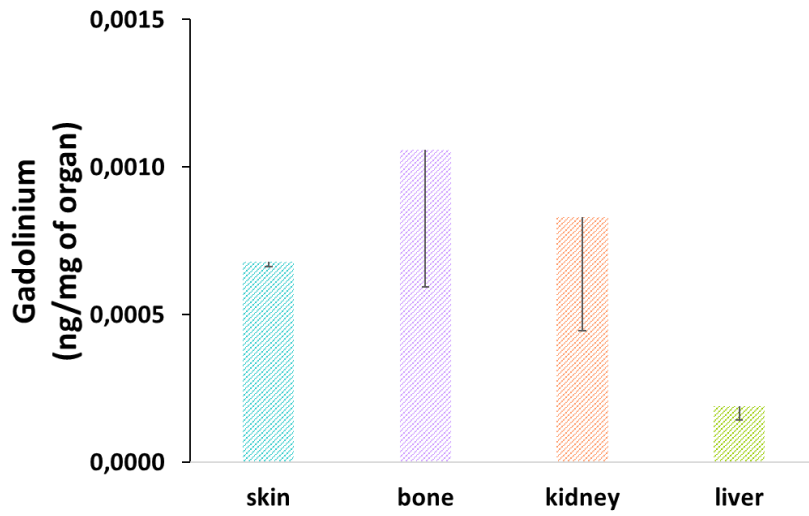


Figure S4. Gd content of control organs from rats having received the surgery procedure without implantation of mesh (control group) (data are expressed as means \pm SD and correspond to measurements with $n = 3$).