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Supporting Information

A Unique ^{19}F MRI Agent for the Tracking of Non Phagocytic Cells *In Vivo*

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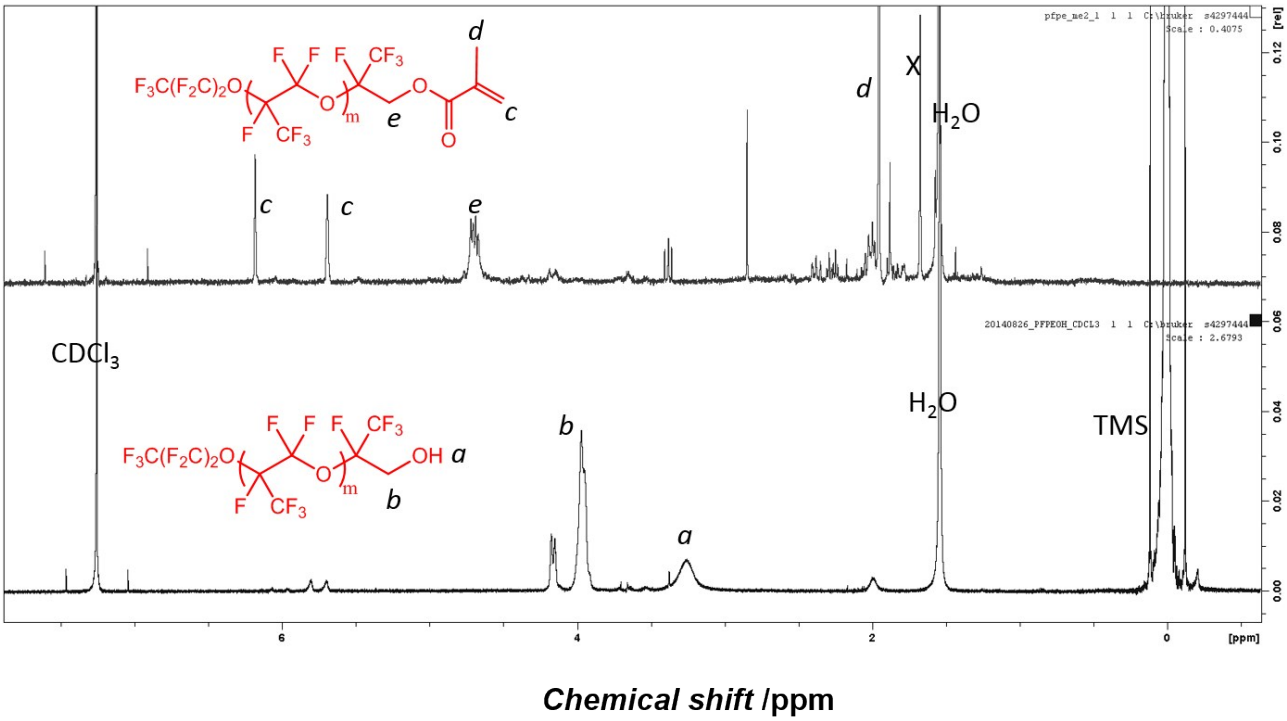

Figure S1. ^{1}H NMR spectra of the monohydroxy terminated PFPE and PFPE methacrylate in $CDCl_3$.

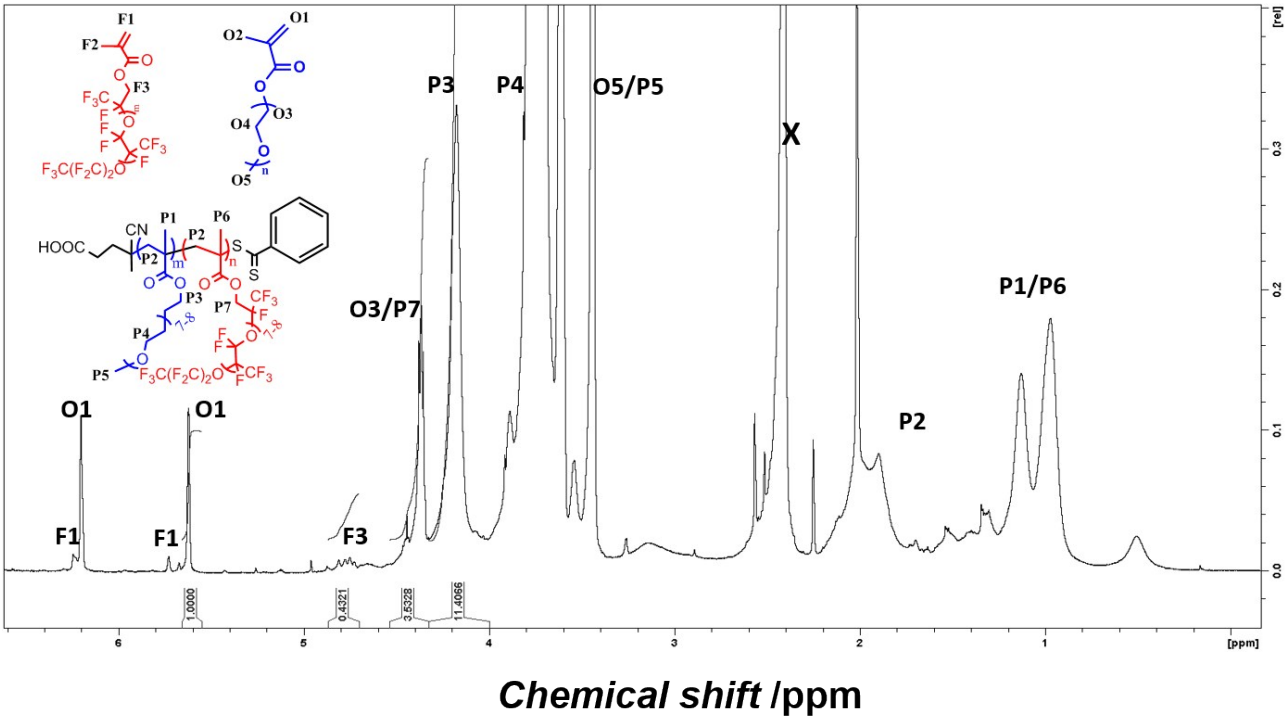

Figure S2. ^{1}H NMR spectra of the crude sample from the RAFT polymerization of OEGMA and PFPE methacrylate in $CDCl_3$.

Table S1. Details of the chemical structure of the copolymer of OEGMA and PFPE.

Polymer	Conversion [%] OEGMA	PFPE	^{19}F [wt %]	$M_{n, NMR}$ [g mol^{-1}]	$M_{n, GPC}$ [g mol^{1}]	$M_{n, th}$ [g mo^{-1}]	$Đ_M$	D_h [nm]
Poly(OEGMA-*co*-PFPE) copolymer	85.1	77.9	21.4	75000	11870	33500	1.13	12

Video S1. MSCs with copolymer PFPE.avi

Z-stack analysis of PMSCs labeled with 3 mg ml^{-1} of Poly(OEGMA-*co*-PFPEMA) with *N*-(5-fluoresceinyl)maleimide. The nuclei were stained with DAPI (blue), copolymer (green) and actin was stained red.

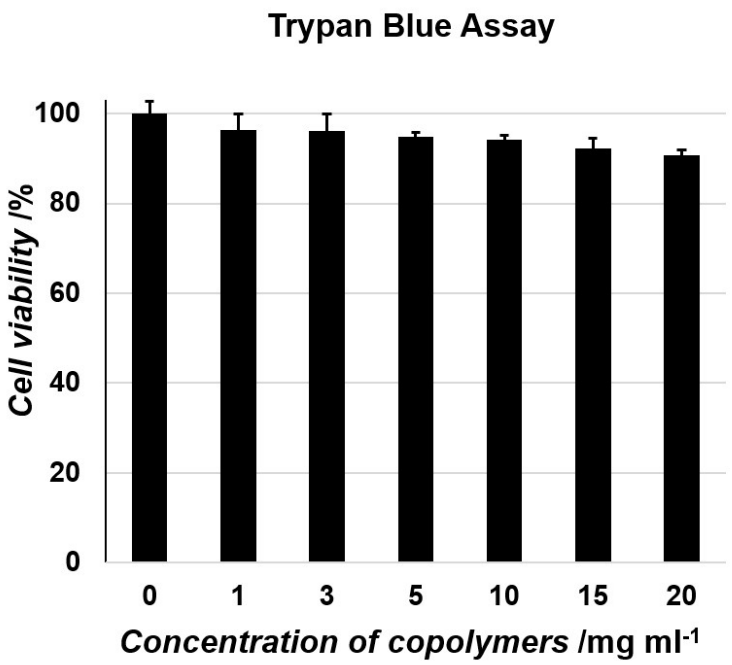

Figure S3. Viability of PSMCs evaluated by the Trypan Blue exclusion assay as a function of concentration after 24 hours incubation in a poly(OEGMA-*co*-PFPEMA) solution. All values are presented as the mean ± one standard deviation.

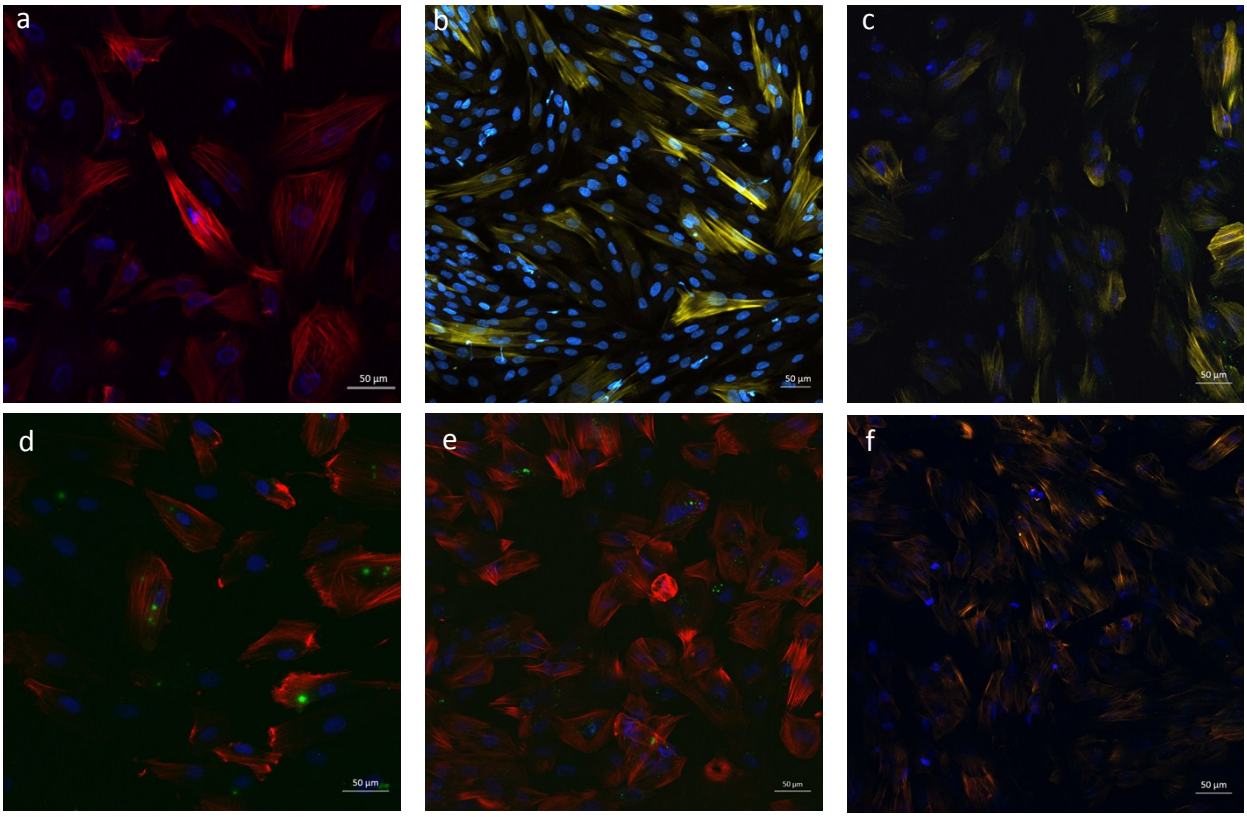

Figure S4. Trafficking and retention of copolymer in MSCs. a) No copolymer, (b-f) Incubated with copolymer (green) at different time points b) 30 mins, c) 4 hours, d) 24 hours, e) 48 hours and f) 72 hours. Actin was stained red. The nuclei were stained with DAPI (blue). All experiments were performed at least three times and representative images are shown.

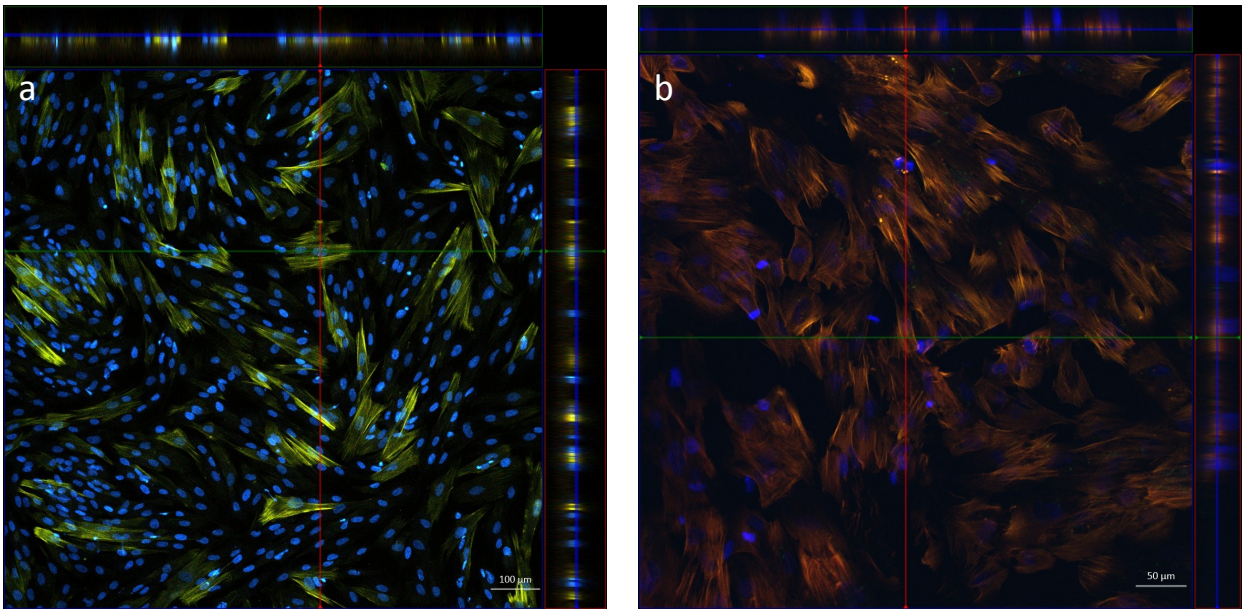

Figure S5. Z stack images. MSCs labelled with actin (red) and copolymer (green) for a) 30 mins b) 72 hours. The nuclei were stained with DAPI (blue). All experiments were performed at least three times and representative images are shown.