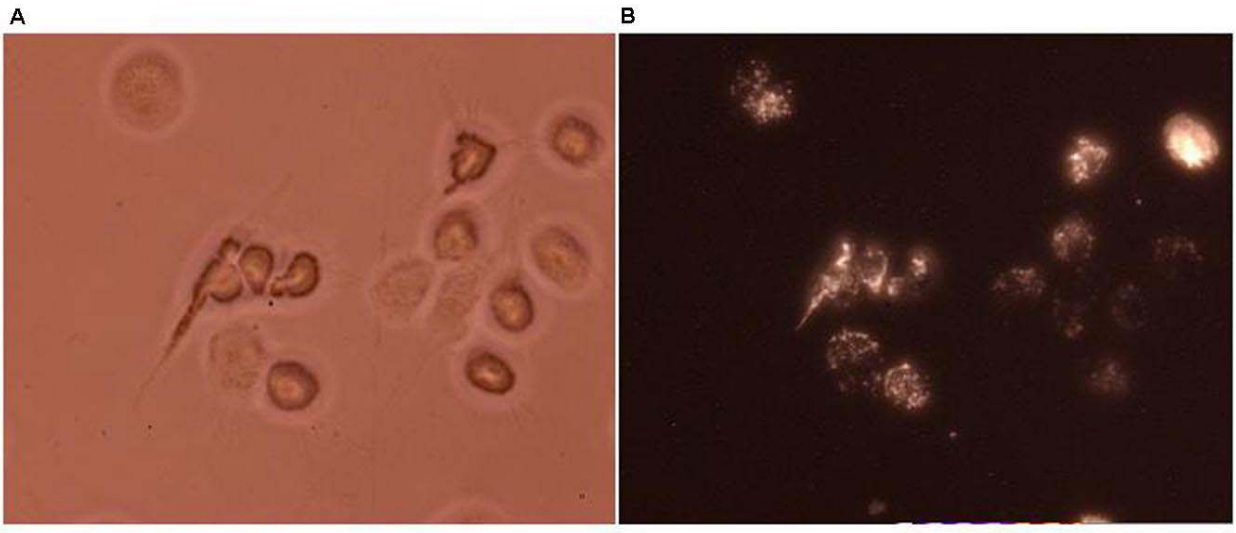
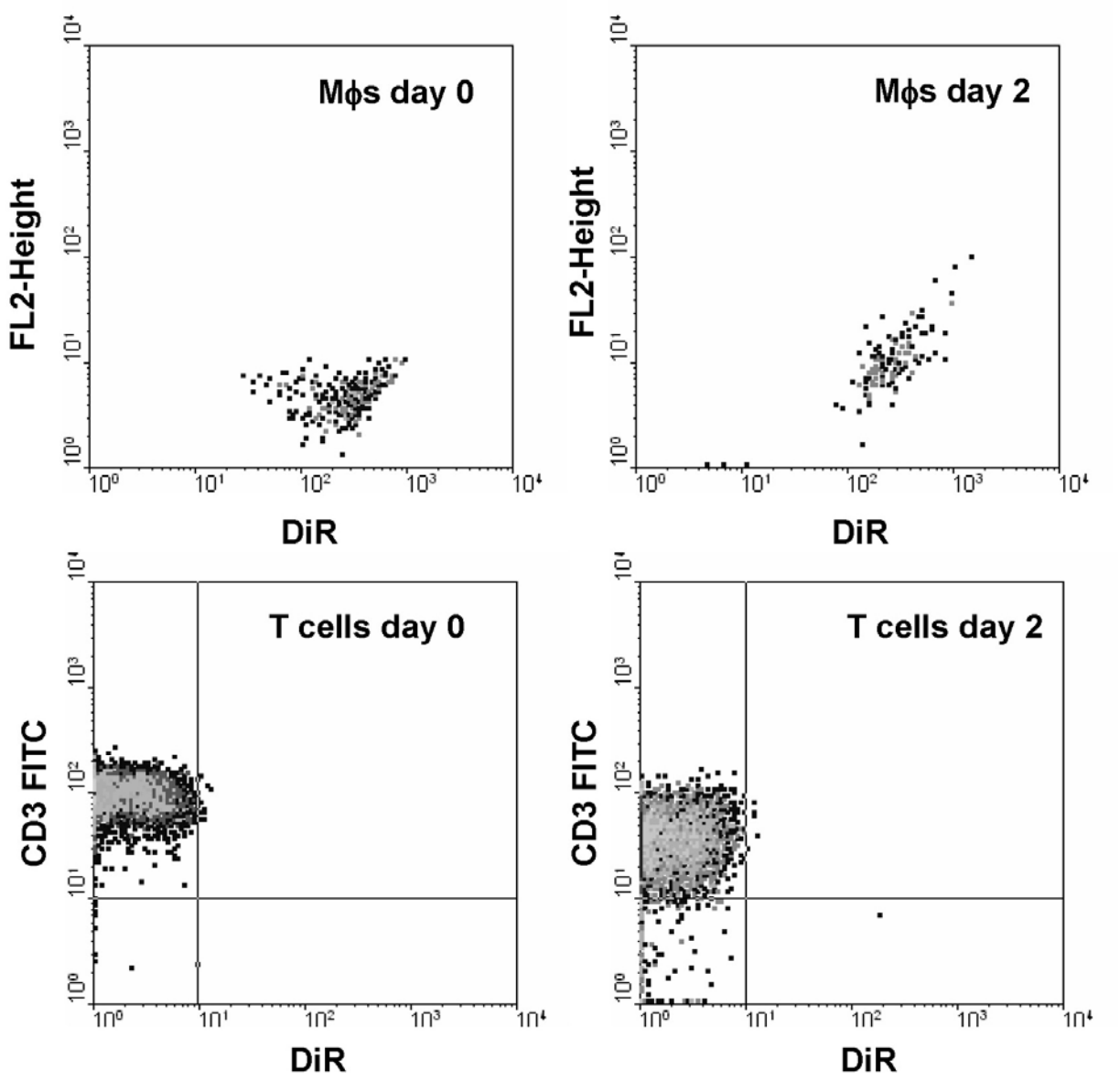


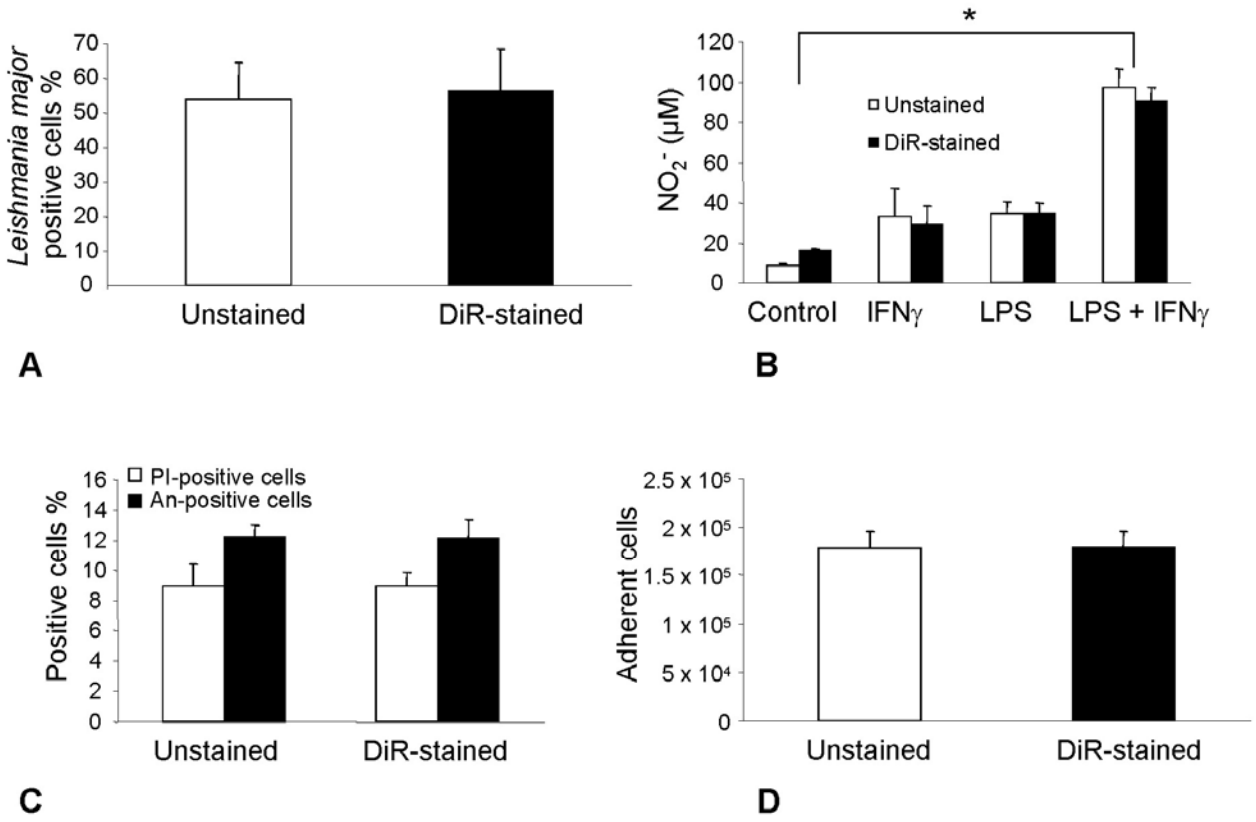
Supplemental Figure 1: Stem cells derived Mϕs labeled with DiR (A: white light image B: image taken by irradiation with near-infrared light).

Mϕs were labeled with DiR, transferred to sterile cell plates and incubated for at least 12h with the suitable medium to achieve adherence. After that, the medium was spilled and replaced with PBS for the time of microscopy. The microscopy was performed using an inverted fluorescence microscope (Eclipse TE 2000-U; Nikon, Düsseldorf, Germany; 40× objective magnification, Ex/Em: of microscopic filters: 735/770 nm). A CCD camera (DXM 1200 F; Nikon, Düsseldorf, Germany) adapted with a bandpass filter was used for image capture.



Supplemental Figure 2: Stability of DiR-labeling in vitro

To test stability of DiR-labeling, Mϕs were stained with DiR and cultured in a ratio of 1:1 with CD3 + T-cells in plastic culture dishes. After 2 days of co-culture less than 0.5% of CD3+ T-cells had taken up DiR while there was still a uniform, intense DiR-staining of Mϕs.



Supplemental Figure 3: Results of vitality and functionality assays

A: Phagocytosis of *L. major* by DiR stained and control Mϕs**.**
Fluorescently labeled *L. major* was added in 5-fold excess to cultured Mϕs for 4 hours. The rate of phagocytosis was determined by calculating the percentage of Mϕs with increased fluorescence signals due to uptake of labeled *L. major*. DiR-staining did not result in differences in the rate of phagocytosis. Shown are means ± SEM, n = 3.

B: Production of NO by DiR-stained and control Mϕs**.**
Mϕs were stimulated with the indicated combinations of IFN-γ (500 U/ml) and LPS (100 ng/ml) or left untreated. DiR staining did not result in alteration of NO-production. Shown are means ± SEM, n = 3.

C: Apoptosis of DiR stained and unstained Mϕs
The DIR-stained and control Mϕs were cultured for 16h. Apoptosis was visualized by staining with AnnexinV-FITC and Nicoletti assay as described previously (12, 13). Staining with DiR did not result in an increased apoptosis rate compared to control Mϕs. Shown are means ± SEM, n = 3.

D: Percentage of adherent Mϕs after staining with DiR
Mϕs were stained, seeded into untreated plastic tissue culture dishes and allowed to adhere for 30 min. Non adhered cells were washed away and the remaining cells were fixed with glutaraldehyde - solution and stained with 0,5% crystal violet solution. After that, cells were washed and lysed. The optical density was determined at 560 nm. Staining with DiR did not result in a change of cellular adherence. Shown are means ± SEM, n = 3.