

Biocompatible Polymer Nanoparticles-Based Bimodal Imaging Contrast Agents for the Labeling and Tracking of Immunotherapeutic Cells

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Here, we developed biocompatible polymer-based nanoprobes for both magnetic resonance imaging (MRI) and near-infrared (NIR) fluorescence imaging. With the help of dual-functional PLGA nanoparticles, the migration of dendritic cells (DC) via lymphatic drainage was monitored through real-time NIR fluorescence imaging, and the homing of dendritic cells into lymph nodes through noninvasive MRI techniques was also accomplished. The biocompatible polymer-based bimodal imaging contrast agents are expected to be used for the effective trafficking of DC to the lymph nodes of patients, which is highly required for the efficient DC-based immunotherapy of cancers.