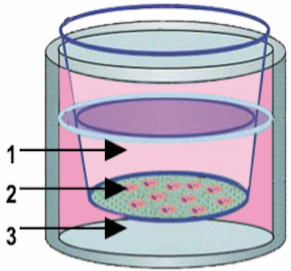
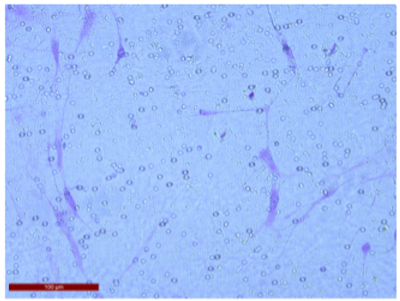


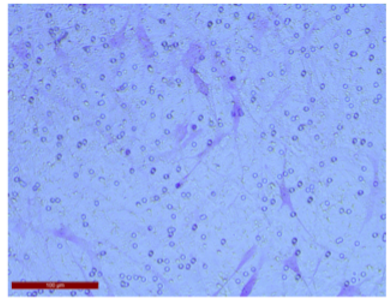

1 Medium with 1% FBS

2 HU-MSCs or SCIOPs

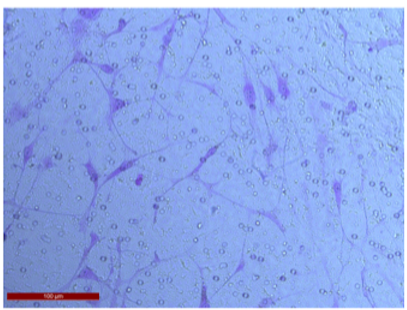
3 Medium with 10% FBS



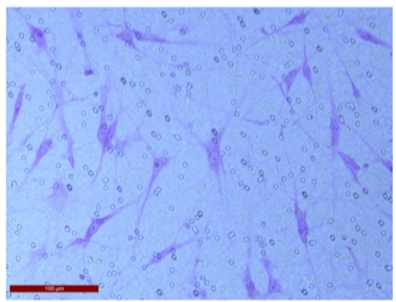
0μg/ml



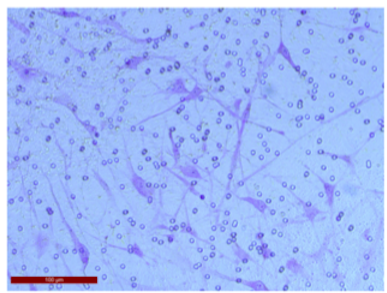
12.5μg /ml



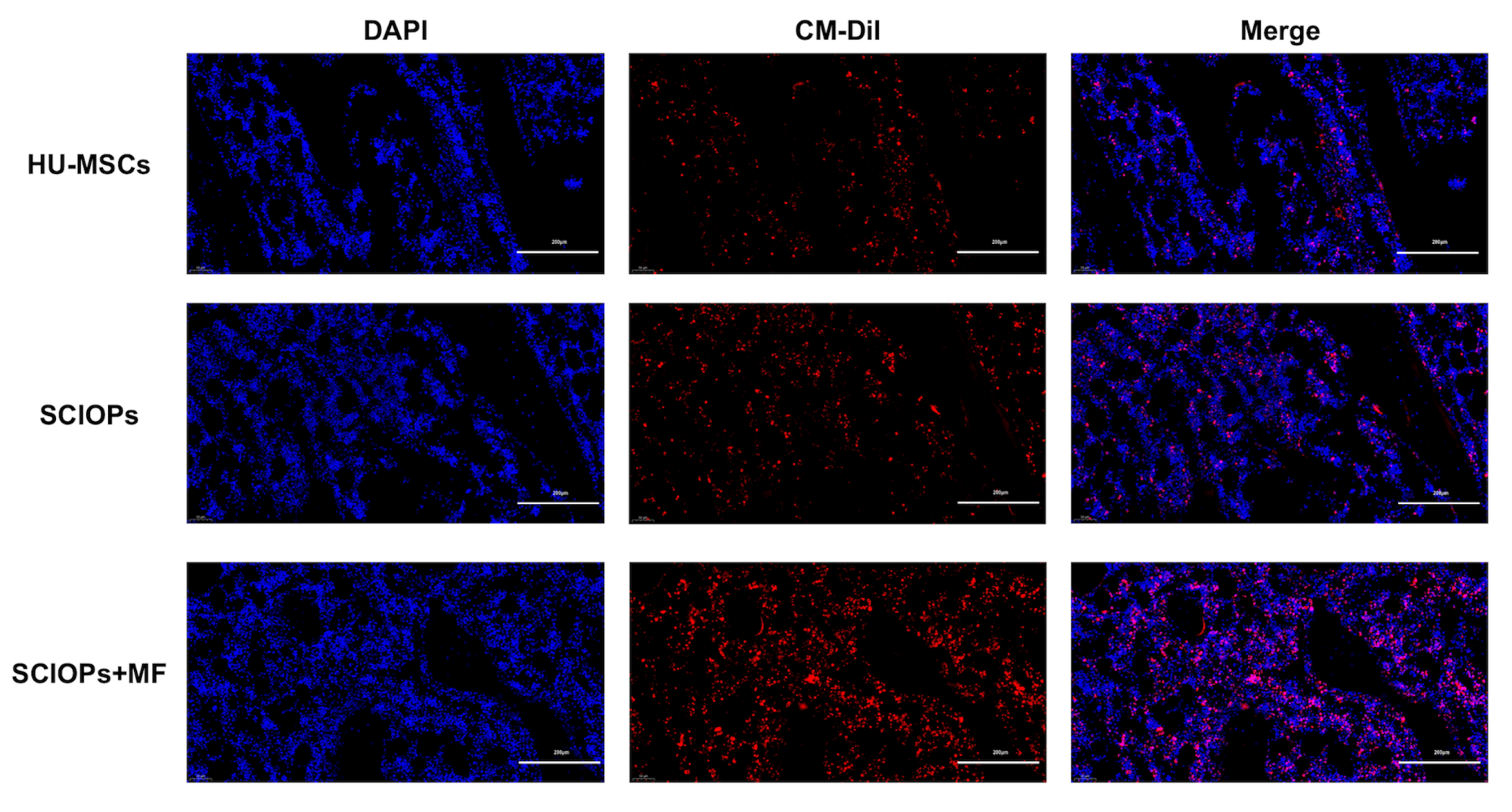
25μg /ml



50μg /ml



100μg /ml


DAPI
CM-Dil
Merge
HU-MSCs
SCIOPs
SCIOPs+MF

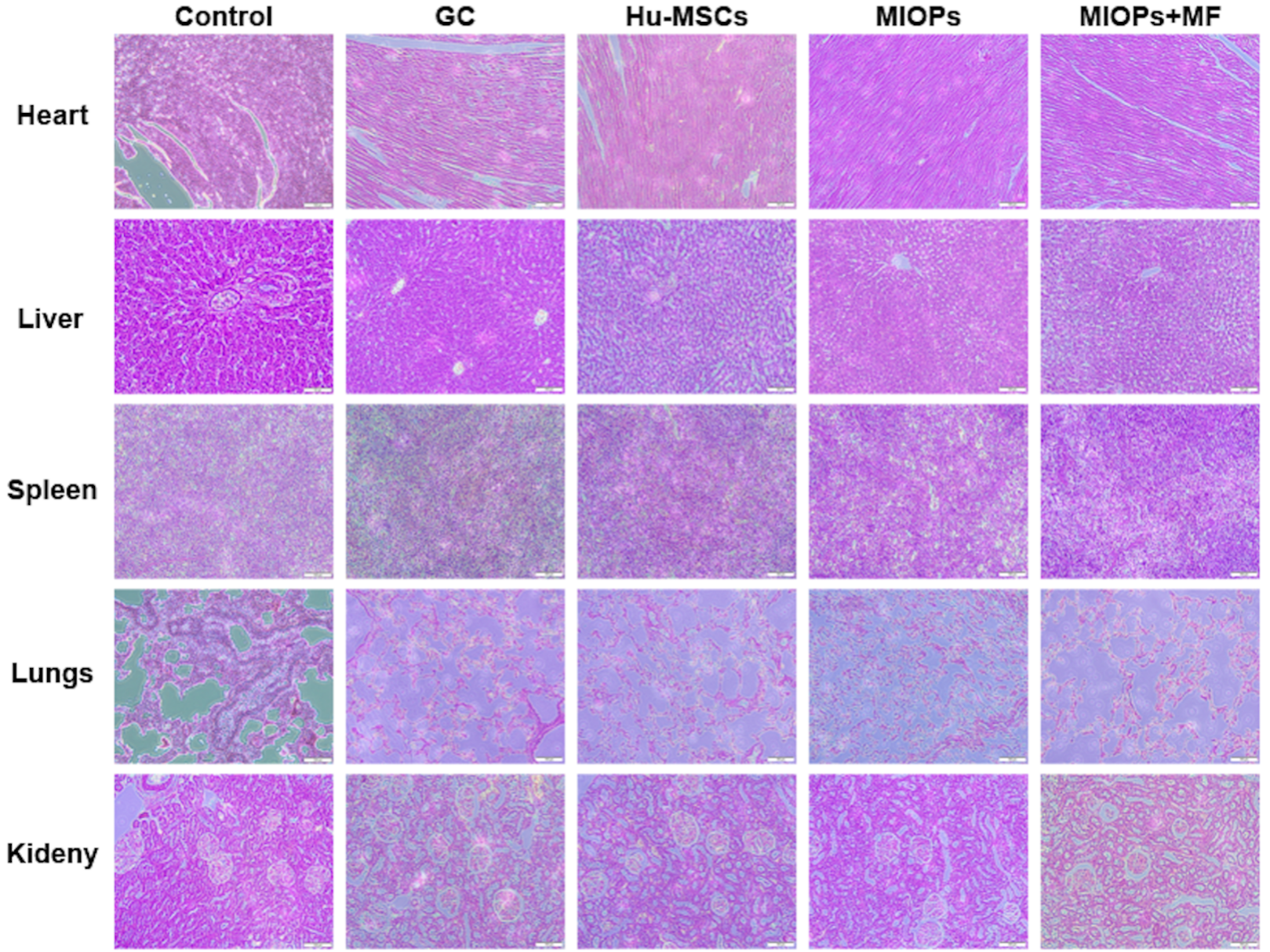

Control
GC
Hu-MSCs
MIOPs
MIOPs+MF
Heart
Liver
Spleen
Lungs
Kideny

**Figure. S1.** Effect of SPION@PDA NPs on the migration of MSCs in *vitro*. The migration of the MSCs labeled with various concentrations (0, 12.5, 25, 50, and 100 μg/mL) of NPs for 24 h. MSCs passed through the inserts were dyed by H&E staining. Scale bar = 100 μm.

**Figure. S2.** CM-DiI marked MSCs, the immunofluorescence in HU-MSCs, SCIOPs, and SCIOPs+ MF groups. (Scale bar = 200 μm.)

**Figure. S3.** H&E staining of the heart, liver, lungs, kidney, and spleen (third month) in Control, GC, HU-MSCs, SCIOPs, and SCIOPs+ MF groups. (Scale bar = 100 μm. H&E, hematoxylin and eosin.)