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Supplementary materials:



Figure S1 Orthogonal sections of z-stack images. a) Frontal (xy), b) Transverse (xz)and c) Sagittal (yz). Figure was produced by Zen blue software.



Figure S2: nanoMIL-89 cellular uptake by PAECs and PASMCs treated with 1µg LPS. Cells were treated with different nanoMIL-89 concentrations (0, 1, 3, 10, 30 and 100 µg/mL) in a 1 µg/mL LPS treated media. Images were then taken using light microscope at a maginification of 20x at three timepoints that ranges from day 1 to day 7.



Figure S3: Blind scoring of nanoMIL-89. Cells were treated with different concentrations of nanoMIL-89 (1,3,10,30,100 μ g/mL) in inflammatory conditions (1 μ g/mL LPS) and imaged with inverted light miscroscope. Cellular uptake of nanoMIL-89 by (A) PAECs and (B) PASMCs was determined by blinded visual scoring (n = 6 independent assessments) according to a relative scale from 0 to 5.



Figure S4: TEM images of nanoMIL-89 dissolved in dH₂O. (A and B) TEM images of nanoMIL-89 aggregations (magnification 4,000 x and 20,000x, respectively) forming spindle shape aggregates with 500 nm – 1 μ m diameter; indicated by the red arrows. These aggregates result from the crosslinking of single nanoparticles (80 – 200 nm) presented in C and D (magnification 38,000x and 295,000x,



Figure S5: Energy dispersive spectroscopy elemental mapping showing iron, oxygen and carbon distribution of nanoMIL-89 in PAECs and PASMCs showing the distribution of nanoMIL-89 particles inside the cells at a concentration of 5 μ g/mL.