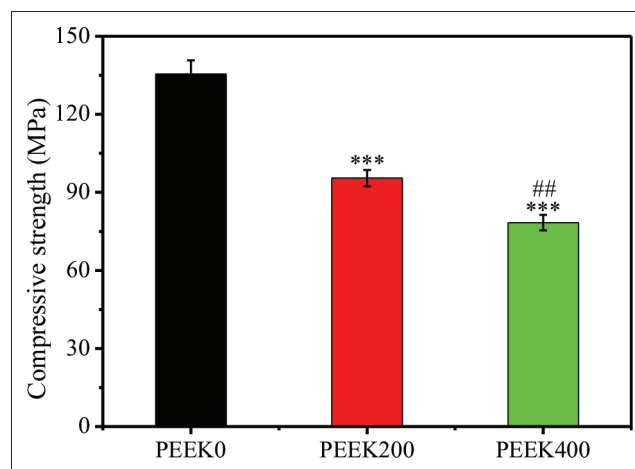


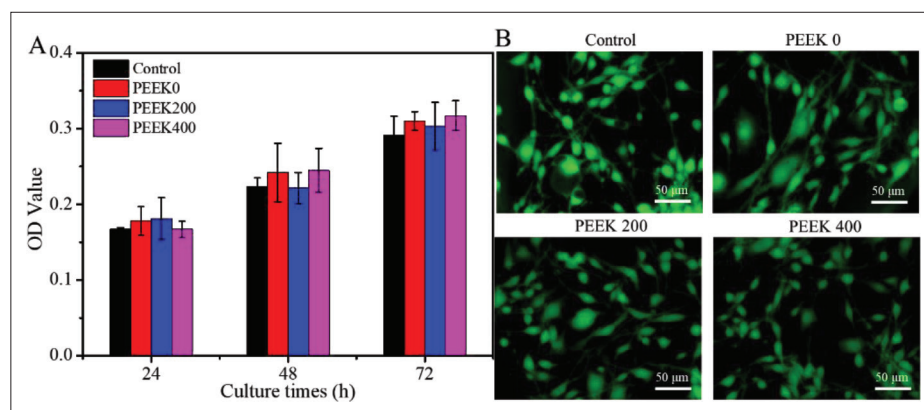
RESEARCH ARTICLE

# Pore size-mediated macrophage M1 to M2 transition affects osseointegration of 3D-printed PEEK scaffolds

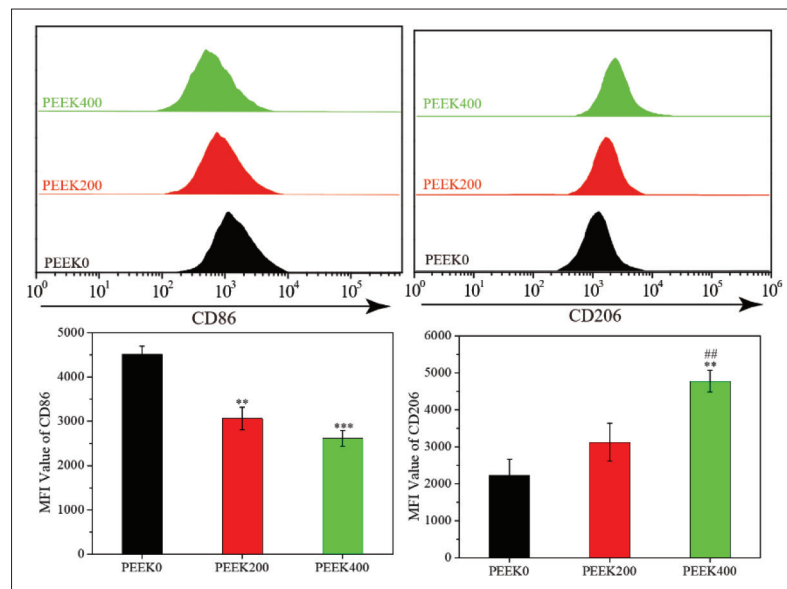
Supplementary file



**Figure S1.** Compressive strength of 3D-printed PEEK scaffolds with different pore sizes. Data are shown as the mean  $\pm$  SD for  $n \geq 3$ ; \* $p < 0.05$ , \*\* $p < 0.01$ , and \*\*\* $p < 0.001$  indicate significant differences when compared to the PEEK0; ## $p < 0.01$  indicates significant differences when compared to the PEEK200.



**Figure S2.** (A) Proliferation of L-929 fibroblasts cultured with the PEEK scaffold extract for 24, 48, and 72 h. (B) Fluorescence staining of L-929 fibroblasts cultured with the PEEK scaffold extract for 72 h (scale bar = 50  $\mu$ m).



**Figure S3.** (A) Expression of CD86 detected by flow cytometry. (B) Mean fluorescence intensity of CD86. (C) Expression of CD206 detected by flow cytometry (D) Mean fluorescence intensity of CD206. Data are shown as the mean  $\pm$  SD for  $n \geq 3$ ; \* $p < 0.05$ , \*\* $p < 0.01$ , and \*\*\* $p < 0.001$  indicate significant differences when compared to the PEEK0; ## $p < 0.01$  indicates significant differences when compared to the PEEK200.

**Table S1. Macrophage polarization-related gene primer pairs used in RT-qPCR.**

Gene	Primer	Sequence (5'-3')
<i>GAPDH</i>	Forward	CCAATGTGTCCGTCGTGGATCT
	Reverse	GTTGAAGTCGCAGGAGACAACC
<i>CCR7</i>	Forward	GGTGGCTCTCCTTGTCATTTTC
	Reverse	AGGTTGAGCAGGTAGGTATCCG
<i>TNF-<math>\alpha</math></i>	Forward	TATGGCCCAGACCCTCACA
	Reverse	GGAGTAGACAAGGTACAACCCATC
<i>iNOS</i>	Forward	CAAGCTGAACTTGAGCGAGGA
	Reverse	TTTACTCAGTGCCAGAAGCTGGA
<i>VEGF</i>	Forward	GGAGTACCCCGACGAGATAGAGTA
	Reverse	AGCCTGCACAGCGCATC
<i>CD206</i>	Forward	TACTTGGACGGATAGATGGAGG
	Reverse	CATAGAAAGGAATCCACGCAGT
<i>TGF-<math>\beta</math></i>	Forward	CAAGCTGAACTTGAGCGAGGA
	Reverse	TTTACTCAGTGCCAGAAGCTGGA
<i>BMP-2</i>	Forward	AACGAGAAAAGCGTCAAGCC
	Reverse	AGGTGCCACGATCCAGTCAT
<i>PDGF-bb</i>	Forward	ATCCGCTCCTTTGATGATCT
	Reverse	GAGCTTTCCAACCTCGACTCC

**Table S2. Osteogenesis-related gene primer pairs used in RT-qPCR.**

Gene	Primer	Sequence (5'-3')
<i>GAPDH</i>	Forward	ACAGTTGCCATGTAGACC
	Reverse	TTTTGGTTGAGCACAGG
<i>ALP</i>	Forward	TCTTCACATTTGGTGGATAC
	Reverse	ATGGAGACATTCTCTCGTTC
<i>OCN</i>	Forward	TTCTTTCCTCTTCCCCTTG
	Reverse	CCTCTTCTGGAGTTTATTGG
<i>OPN</i>	Forward	GACCAAGGAAAACACTACTAC
	Reverse	CTGTTTAACTGGTATGGCAC
<i>RUNX2</i>	Forward	AAGCTTGATGACTCTAAACC
	Reverse	TCTGTAATCTGACTCTGTCC

**Table S3. Angiogenesis-related gene primer pairs used in RT-qPCR.**

Gene	Primer	Sequence (5'-3')
<i>GAPDH</i>	Forward	GGAGTCCACTGGCGTCTTC
	Reverse	GCTGATGATCTTGAGGCTGTTG
<i>Angiogenin</i>	Forward	GTGCTGGGTCTGGGTCTGAC
	Reverse	GGCCTTGATGCTGCGCTTG
<i>FGF</i>	Forward	CTGTAAGCAAAAACGGG
	Reverse	AAAGTATAGCTTTCTGCC
<i>SDF</i>	Forward	TGAGAGCTCGCTTTGAGTGA
	Reverse	CACCAGGACCTTCTGTGGAT