

Correlation of Polymeric micelle Sizes and their Cellular Internalization in Vitro and Tumor Targeting in Vivo

F.R. Cheng,^{a, b#} Y.J. Yang,^{a, c#} Y. Liang,^a J. Cao,^{a*} T. Su,^a L. Jiang,^{a, d} B. He,^a X.L. Luo,^b and Z.W. Gu^a

^a National Engineering Research Center for Biomaterials, Sichuan University, Chengdu 610065, PR China

^b College of Polymer Science and Engineering of Sichuan University, Sichuan University, Chengdu 610065, PR China

^c West China School of Pharmacy Sichuan University, Sichuan University, Chengdu 610065, PR China

^d School of Pharmacy, Shenyang Pharmaceutical University, Shenyang, 110016, PR. China

Table S1. The properties of mPEG-PCL-chrysin copolymers

Copolymer	Mn		Mw	PDI
	HNMR	GPC		
mPEG2k-PCL2k-chrysin	4120	7411	8428	1.14
mPEG2k-PCL5k-chrysin	7126	11451	15852	1.38

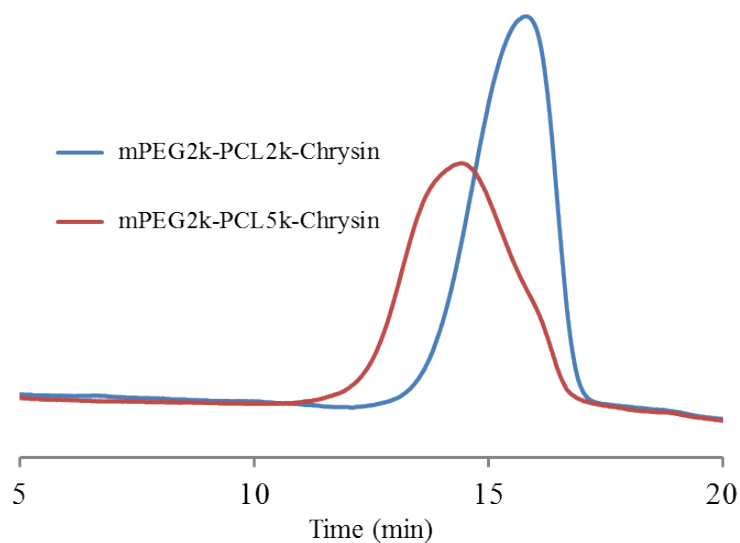


Figure S1. The GPC trace of mPEG-PCL-chrysin copolymers

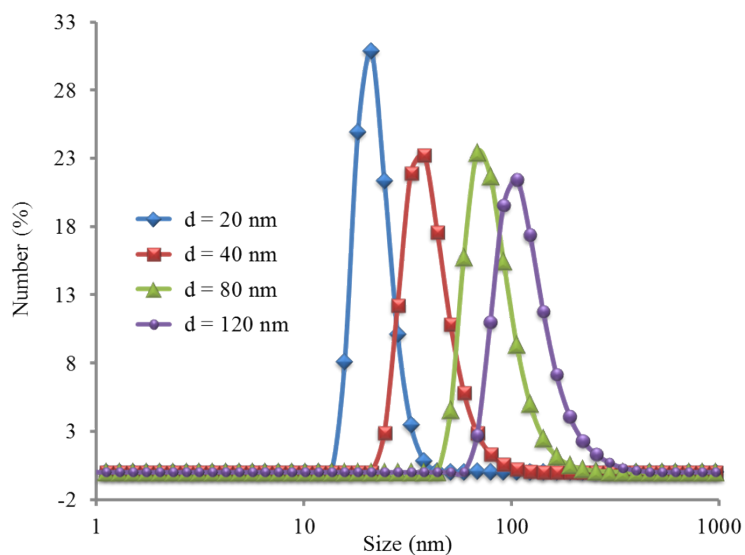


Figure S2. The size of Nile red loaded mPEG-PCL-chrysin micelles measured by DLS.

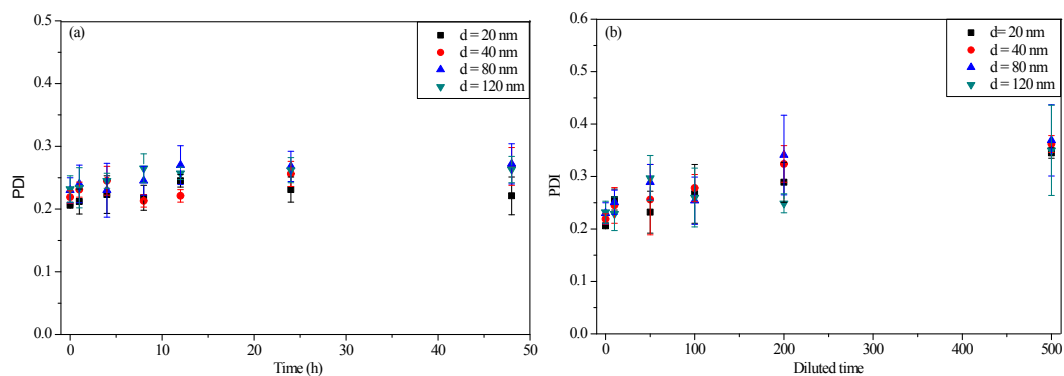


Figure S3. The size distribution of mPEG-PCL-chrysin copolymer micelles incubated

with (a, b) different time and (c, d) diluted with PBS for different times.

Table S2. The FCM results of mPEG-PCL-chrysin micelles with various sizes

Copolymer micelles	4T ₁		C2C12	
	%Gated	X-Mean	%Gated	X-Mean
mPEG2k-PCL5k-chrysin ^{a)}	99.98 ± 0.7	8.99 ± 0.45	57.55 ± 0.92	2.74 ± 0.08
mPEG2k-PCL5k-chrysin ^{b)}	99.97 ± 1.5	7.01 ± 0.09	61.37 ± 5.57	2.83 ± 0.09
mPEG2k-PCL5k-chrysin ^{c)}	99.97 ± 2.5	11.4 ± 0.79	55.89 ± 3.55	2.64 ± 0.58
mPEG2k-PCL2k-chrysin ^{d)}	99.99 ± 1.2	13.7 ± 1.17	60.87 ± 1.03	2.76 ± 0.02

^{a)} micellar concentration 0.2 mg/mL; ^{b)} micellar concentration 0.8 mg/mL; ^{c)} micellar concentration 1 mg/mL; ^{d)} micellar concentration 1.5 mg/mL.