

Supplementary Materials for

Progress of nanoparticle mechanical properties on tumor targeting delivery

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Supplementary Table 1. Table of terms and abbreviations.

Abbreviation	Term
RES	reticuloendothelial system
TME	tumor microenvironment
TMME	tumor mechanical microenvironment
IFP	interstitial fluid pressure
CAFs	cancer associated fibroblasts
ECM	excessive extracellular matrix
CTL	cytotoxic T lymphocytes
TRCs	tumor repopulating cells
CSCs	cancer stem cells
MCSs	multicellular spheroids
siRNA	small interfering RNA
BBB	blood-brain barrier
MCSNs	mesenchymal stem cell membranes
HIV	immature human immunodeficiency virus
TAMs	tumor-associated macrophages
MCTS	multicellular tumor spheroid
AFM	atomic force microscopy
QCM-D	quartz crystal microbalance with dissipation monitoring
SROMs	super-resolution optical microscopes
TEM	transmission electron microscopy
LLS	laser light scattering
STED	stimulated emission depletion
PRINT [®]	particle replication in nonwetting templates
ATRP	atom transfer radical polymerization
SANS	small angle neutron scattering
E	Young's modulus
K	bulk modulus
G	shear modulus
Eh^3	bending stiffness
LCST	lower critical solution temperature
VPTT	volume phase transition temperature
AUC	area under the blood concentration-time curve
MSD	mean-squared displacement
kPa	kilo-Pascals
GPa	Giga-Pascals
W/O	water-in-oil
PEG	poly(ethylene glycol)
PEGDA	poly(ethylene glycol) diacrylate
CEA	2-carboxylethyl acrylate
pCB	poly(carboxybetaine)
NIPAM	<i>N</i> -isopropylacrylamide
NIPMAM	<i>N</i> -isopropylmethacrylamide

BIS	<i>N,N'</i> -methylenebisacrylamide
SDS	sodium dodecyl sulphate
GSH	glutathione
BAC	<i>N,N'</i> -bis(acryloyl)cystamine
HEMA	2-hydroxyethyl methacrylate
GMA	glycidyl methacrylate
CTAB	cetyltrimethylammonium bromide
TESPTS	bis[3-(triethoxysilyl)propyl] tetrasulfide
BTSB	1,4-bis(triethoxysilyl)benzene
BTSE	1,2-bis(triethoxysilyl)ethane
HA	hyaluronic acid
Cy5.5	cyanine 5.5
Ce6	chlorine e6
OVA	ovalbumin
DOX	doxorubicin
NaOH	sodium hydroxide
Mn-O	manganese-oxide
TEVS	triethoxyvinylsilane
TEOS	tetraethoxysilane
Gd ₂ O ₃	gadolinium oxide
DextS	dextran sulphate sodium salt
DSPE	1,2-distearoyl-sn-glycero-3-phosphoethanolamine
DLPC	1,2-dilauroyl-sn-glycero-3-phosphocholine
DPPC	1,2-dipalmitoyl-sn-glycero-3-phosphocholine
DSPC	1,2-distearoyl-sn-glycero-3-phosphocholine
DOPE	1,2-dioleoyl-sn-glycero-3-phosphoethanolamine
AA	acrylamide
FA	folic acid
GM3	monosialodihexosylganglioside
RGD	arginyl-glycyl-aspartic acid
IST1	Increased Sodium Tolerance 1
AP-2	adapter protein complex-2
ApoA1	apolipoprotein A-I
PLVAP	plasmalemma vesicle associated protein
ICAM-1	intracellular adhesion molecule-1
Mn-O	manganese-oxide
PLArg	poly-L-arginine hydrochloride
PNIPAM	poly(<i>N</i> -isopropylacrylamide)
PNIPMAM	poly(<i>N</i> -isopropylmethacrylamide)
PCL	poly(ϵ -caprolactone)
PBA	poly(butyl acrylate)
PEG-PLA	poly(ethylene glycol)-poly(lactide)
PHEMA	poly(2-(trimethylsilyloxy)ethyl methacrylate)
PBIEM	poly(2-(2-bromoisobutyryloxy)ethyl methacrylate)

PLGA-PEG	poly(lactic-co-glycolic acid)-poly(ethylene glycol)
PMA	poly(methacrylic acid)
PSS	poly(sodium 4-styrenesulfonate)
PAH	poly(allylaminehydrochloride)
PGA	poly(L-glutamic acid)
NDDS	nano drug delivery systems
VTCs	vascular-targeted drug carriers
EVs	extracellular vesicles
PE	Pickering emulsion
LM	liquid metal
LBL	layer by layer
MONs	mesoporous organosilica nanoparticles
SMONs	soft mesoporous organosilica nanospheres
MMON	manganese oxide hybridized mesoporous organosilica nanoplatfrom
RBCMs	red blood cell mimics
WPM	wet polymer micelles
SPM	solidified polymer micelles
CPBs	cylindrical polymer brushes
HPMO	hollow periodic mesoporous organosilica
PMO	periodic mesoporous structures
SNCs	silica nanocapsules
DPNs	discoidal nanoparticles
DASE	deformable albumin-stabilized emulsion
P-L NPs	PLGA-core PEG-lipid shell hybrid nanoparticles
MPs	microparticles
HNPs	hybrid nanoparticles
NLPs	nanoliposomes
NLGs	nanolipogels
YEMO	yolk-shell structured eccentric mesoporous organosilica
nanoEMs	erythrocyte membrane-cloaked nanoparticles
CGNPs	cationized gelatin nanoparticles
Lipo-NPs	liposome nanoparticles
CPBs	cylindrical polymer brushes
LCS	liposome-coated silica
SNs	silica nanoparticles
RBC-ENPs	red blood cell-coated elastic poly(ethylene glycol) diacrylate hydrogel nanoparticles
r-DPNs	rigid DPNs
s-DPNs	soft DPNs
S-MON	solid mesoporous organosilica nanoparticles
H-MON	hollow mesoporous organosilica nanoparticles
D-MON	deformable mesoporous organosilica nanoparticles

RPPs	red blood cell-like PEG particles
C-NPs	compliant layer-by-layer nanoparticles
S-NPs	stiff layer-by-layer nanoparticles
SPMs	solidified polymer micelles
WPM	wet polymer micelles
D-Lipo	deformable liposome system
PDT	photodynamic therapy
MR	magnetic resonance
SDT	sonodynamic therapy
PTT	photothermal therapy
3D	three-dimensional
