

Nanotechnology in Regenerative Medicine and Drug Delivery Therapy

Haiyan Xu • Ning Gu
Editors

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 Springer

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Abbreviation 1

124 polymer	Poly(octamethylene maleate (anhydride) 1,2,4-butanetricarboxylate)
AFM	Atomic force microscopy
AML	Acute myeloid leukemia
APDCs	Amphiphilic peptide-drug conjugates
APL	Acute promyelocytic leukemia
ATRA	All-trans retinoic acid
BP	Bispyrene
BSA	Bovine serum albumin
CA	Cellulose acetate
CD	Circular dichroism
CEC	<i>N</i> -carboxyethyl chitosan
CMC	Carboxymethyl cellulose
CNCs	Cellulose nanocrystals
Col	Collagen
CR	Complete remission
cryo-EM	Cryo-electron microscope
CS	Chitosan
CTCs	Circulating tumor cells
DM1	Maytansinoid
DTT	Dithiothreitol
EGCG	(–)-epigallocatechin-3-gallate
EPR	Enhanced permeability and retention
ESEM	Environmental scanning electron microscopy
FDA	Food and drug administration
Gel	Gelatin
GelMA	Methyl acrylic anhydride-gelatin
GGMA	Methacrylated gellan gum
GS	Gelatin sponge
HA	Hyaluronic acid
HA-SH	Thiol-modified hyaluronic acid

HCD	Hydrophobic central domain
HDAC	Histone deacetylase
hIAPP	Human islet amyloid polypeptide
HLB	Hydrophilic-lipophilic balance
HME	Hot melt extrusion
HPLC	High-performance liquid chromatography
IC ₅₀	50% inhibiting concentration
IHC	Immunohistochemical
LbL	Layer-by-layer
MAAG	Methacrylated aminated gelatin
MDS	Myelodysplastic syndrome
MEL	Melamine
MeTro	Methacryloyl-substituted recombinant human tropoelastin
MIDAS	Metal ion-dependent adhesion site
MNPs	Magnetic nanoparticles
NFs	Nanofibers
NMR	Nuclear magnetic resonance
Nrp-1	Neuropilin-1
OHA	Oxidized hyaluronic acid
OPF	Oligo(poly(ethylene glycol) fumarate)
P(VDF-TrFE)	Poly(vinylidene fluoride-co-trifluoroethylene)
PAA	Poly(acrylic acid)
PAAm	Polyacrylamide
PAH	Poly(allylamine hydrochloride)
PANi	Polyaniline
PCL	Poly-ε-caprolactone or polycaprolactone
PDA	Polydopamine
PDCs	Peptide-drug conjugates
PDLLA	Poly(D, L-lactic acid)
PEDOT	Poly(3,4-ethylenedioxythiophene)
PEG	Poly(ethylene glycol)
PEGDA	Polyethyleneglycol diacrylate
PEGS	Poly(ethylene glycol)-co-poly(glycerol sebacate)
PG	Polyglycolide
PGS	Poly(glycerol sebacate)
PHEMA	Poly(2-hydroxyethyl methacrylate)
pI	Isoelectric point
PLA	Poly-DL-lactide or poly(lactic acid)
PLGA	Poly(lactic-co-glycolic acid)
PLL	Poly-L-lysine
PLLA	Poly(L-lactide)
PNIPAAm	Poly(<i>N</i> -isopropylacrylamide)
PPY	Polypyrrole
PSS	Poly(4-styrene sulfonate)
PTAA	Poly(thiophene-3-acetic acid)

PU	Polyurethane
PVA	Polyvinyl alcohol
PVDF	Polyvinylidene fluoride
PVP	Polyvinylpyrrolidone
QCSG	Glycidyl methacrylate functionalized quaternized chitosan gel
RIF	Realgar-indigo naturalis formula
ROS	Reactive oxygen species
RTG	Reverse thermal gel
SD	Standard deviation
SDS	Sodium dodecyl sulfate
SF	Silk fibroin
SPR	Surface plasma resonance
SSM	Sterically stabilized micelle
STM	Scanning tunneling microscopy
TCP	Tissue-culture-treated polystyrene
TEAR	Transformation-enhanced accumulation and retention
ThT	Thioflavin T
TKIs	Tyrosine kinase inhibitors
TNBC	Triple-negative breast cancer
TPU	Thermal plastic polyurethane
TTR	Transthyretin
VEGFR2	Vascular endothelial growth factor receptor 2
VNTR	Variable number of tandem repeats
κC	κ-carrageenan

Abbreviation 2

Cell types	Cell name	Abbreviation
Muscle cells	Rat smooth muscle cells	SMCs
	Cardiomyocyte/cardiac myocytes	CMs
	Neonatal rat ventricular myocytes	NRVM
	Neonatal rat cardiomyocytes	/
	hiPSC-derived cardiomyocytes	hiPSC-CMs
	Embryonic-stem-cell-derived cardiomyocytes	/
	Mouse embryonic stem cell derived cardiomyocytes	mES-CM
	Primary cardiomyocytes	/
	Murine neonatal cardiomyocytes	/
Myoblast cell	H9c2 rat cardiac myoblast cells	H9c2
	C2C12 myoblast cells	C2C12
Stem cell	Human pluripotent stem cells	hPS
	Human pluripotent stem cells-derived cardiomyocytes	hPSC
	Brown adipose-derived stem cells	/
	Human induced pluripotent stem cells	hiPSCs
	Mouse embryoid bodies	Ebs
	Mesenchymal stem cells	MSCs
	Human embryonic stem cells	hESC
	Umbilical cord blood (UCB)-derived multipotent mesenchymal stem cells	CB-hMSCs
	Stem cells	/
	Human mesenchymal stem cells	hMSCs
	Bone marrow derived stem cells	BMSCs
	Rat bone-marrow-derived mesenchymal stem cells	MSCs
Osteoblasts	Osteoblasts	/
	Osteosarcoma	MG-63
	Mouse osteoblast cells	/

Cell types	Cell name	Abbreviation
Nerve-related cells	Nerve stem cells	/
	Rat pheochromocytoma 12	PC12
	Neural stem cells	/
	Schwann cells	SCs
	Rat Schwann cell	RSC
	Dorsal root ganglion neurons	DRG neurons
	Neuron	/
	Human neural stem/progenitor cells (hNSPCs)	/
	Central nervous system neurons	CNS neurons
Stromal cell	Adipose tissue-derived stromal cells	ADSCs
	Fibroblasts	/
	Human cardiac fibroblast	/
	Mouse osteoblast cells	/
Epithelial cell	Epithelial cells derived from breast adenocarcinoma	MCF-7
Blood-related cells	Neutrophil	/
	Macrophage	/
	RAW 264.7 cells	/
	Platelet	/
	Endothelial cell	/