

CITATION REPORT

List of articles citing

Cell shape, cytoskeletal tension, and RhoA regulate stem cell lineage commitment

DOI: 10.1016/s1534-5807(04)00075-9
Developmental Cell, 2004, 6, 483-95.

Source: <https://exaly.com/paper-pdf/37552332/citation-report.pdf>

Version: 2024-04-10

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
2286	Microfabrication techniques in materiomics. 51-66		
2285	Graphene/Si-Promoted Osteogenic Differentiation of BMSCs through Light Illumination.		
2284	Fat and bone. 2004 , 165, 297-297		78
2283	A Rho for the kinetochore. 2004 , 165, 297-297		78
2282	Death comes in small packages. 2004 , 165, 297-297		78
2281	Intimacy is a cellular turn-on. 2004 , 165, 296-296		78
2280	EGFR Autocrine Signaling in a Compliant Interstitial Space: Mechanotransduction from the Outside In. 2004 , 3, 994-995		9
2279	Cyclic mechanical strain inhibits skeletal myogenesis through activation of focal adhesion kinase, Rac-1 GTPase, and NF-kappaB transcription factor. 2004 , 18, 1524-35		94
2278	Fighting foreigners prevents self-destruction. 2004 , 165, 296-297		78
2277	Bend me, shape me.... 2004 , 5, 423-423		1
2276	Adult mesenchymal stem cells: characterization, differentiation, and application in cell and gene therapy. 2004 , 8, 301-16		820
2275	The tension mounts: mechanics meets morphogenesis and malignancy. 2004 , 9, 325-42		369
2274	Neurospheres: insights into neural stem cell biology. 2004 , 78, 761-9		134
2273	Tissue engineering through autologous mesenchymal stem cells. 2004 , 15, 406-10		136
2272	Monocytes and macrophages form branched cell columns in matrigel: implications for a role in neovascularization. 2004 , 13, 665-76		74
2271	Stretch of the vascular wall induces smooth muscle differentiation by promoting actin polymerization. 2004 , 279, 34849-55		119
2270	Tension precedes commitment-even for a stem cell. 2004 , 14, 148-50		46

2269	Biomechanical regulation of mesenchymal stem and progenitor cells and the implications for regenerative medicine. 2005 , 16, 363-367	5
2268	Bioactive Patterns at the 100-nm Scale Produced Using Multifunctional Physisorbed Monolayers. 2005 , 30, 202-206	33
2267	Mechanics of crawling cells. 2005 , 27, 743-53	32
2266	RhoA and cytoskeletal disruption mediate reduced osteoblastogenesis and enhanced adipogenesis of human mesenchymal stem cells in modeled microgravity. 2005 , 20, 1858-66	178
2265	Programming cellular function. 2005 , 1, 304-7	13
2264	Wnt signalling regulates adult hippocampal neurogenesis. 2005 , 437, 1370-5	1156
2263	Small guanine nucleotide-binding protein Rho and myocardial function. 2005 , 26, 279-85	20
2262	Microgravity: the immune response and bone. 2005 , 208, 267-80	81
2261	Combining microscience and neurobiology. 2005 , 15, 560-7	49
2260	Modeling dynamic reciprocity: engineering three-dimensional culture models of breast architecture, function, and neoplastic transformation. 2005 , 15, 342-52	267
2259	Phenotypic changes of adult porcine mesenchymal stem cells induced by prolonged passaging in culture. 2005 , 205, 194-201	237
2258	Twists and turns in the development and maintenance of the mammalian small intestine epithelium. 2005 , 75, 58-71	22
2257	Encapsulation of adult human mesenchymal stem cells within collagen-agarose microenvironments. 2005 , 92, 492-500	117
2256	Cellular and Molecular Foundation for Fracture Healing in Children. 2005 , 31, 90-104	1
2255	Engineering biomaterials to control cell function. 2005 , 8, 28-35	166
2254	Multicellular spheroids of bone marrow stromal cells: a three-dimensional in vitro culture system for the study of hematopoietic cell migration. 2005 , 38, 1455-62	16
2253	Molecular aspects of vascular tissue engineering. 2005 , 10, 768-89	30
2252	Characterization of human fibrocytes as circulating adipocyte progenitors and the formation of human adipose tissue in SCID mice. 2005 , 19, 2029-31	104

2251	Dynamic fibroblast cytoskeletal response to subcutaneous tissue stretch ex vivo and in vivo. 2005 , 288, C747-56	139
2250	Smart Materials with Dynamically Controllable Surfaces. 2005 , 30, 185-188	62
2249	Proteomic analysis of primary cultures of human adipose-derived stem cells: modulation by Adipogenesis. 2005 , 4, 731-40	118
2248	The Neural Crest. 2005 , 29-39	
2247	Modulation of muscle regeneration, myogenesis, and adipogenesis by the Rho family guanine nucleotide exchange factor GEFT. 2005 , 25, 11089-101	62
2246	Modulation of adhesion and growth of cardiac myocytes by surface nanotopography. 2005 , 2005, 4091-4	7
2245	Fibronectin's central cell-binding domain supports focal adhesion formation and Rho signal transduction. 2005 , 280, 28803-10	38
2244	Perilipin targets a novel pool of lipid droplets for lipolytic attack by hormone-sensitive lipase. 2005 , 280, 43109-20	100
2243	RhoA/ROCK signaling regulates Sox9 expression and actin organization during chondrogenesis. 2005 , 280, 11626-34	220
2242	The MEK1 scaffolding protein MP1 regulates cell spreading by integrating PAK1 and Rho signals. 2005 , 25, 5119-33	59
2241	Microengineering the Environment of Mammalian Cells in Culture. 2005 , 30, 194-201	95
2240	Cell adhesion strengthening: contributions of adhesive area, integrin binding, and focal adhesion assembly. 2005 , 16, 4329-40	332
2239	Functional adaptation: the key to plasticity of cardiovascular "stem" cells?. 2005 , 14, 111-21	15
2238	Chips to Hits: microarray and microfluidic technologies for high-throughput analysis and drug discovery. September 12-15, 2005, MA, USA. 2005 , 5, 843-6	10
2237	Subcellular targeting of oxidants during endothelial cell migration. 2005 , 171, 893-904	152
2236	Potential of bone marrow stromal cells in applications for neuro-degenerative, neuro-traumatic and muscle degenerative diseases. 2005 , 3, 257-66	35
2235	Extracellular matrix rigidity governs smooth muscle cell motility in a biphasic fashion. 2005 , 204, 198-209	497
2234	The corneal epithelial stem cell niche. 2005 , 3, 15-26	68

2233	Mediation of biomaterial-cell interactions by adsorbed proteins: a review. 2005 , 11, 1-18	1289
2232	Osteoblast adhesion on poly(L-lactic acid)/polystyrene demixed thin film blends: effect of nanotopography, surface chemistry, and wettability. 2005 , 6, 3319-27	120
2231	The KLF2 transcription factor does not affect the formation of preadipocytes but inhibits their differentiation into adipocytes. 2005 , 44, 11098-105	88
2230	E-cadherin tethered to micropatterned supported lipid bilayers as a model for cell adhesion. 2005 , 21, 11963-8	47
2229	Changes in integrin expression during adipocyte differentiation. 2005 , 2, 165-77	141
2228	TIPs are tension-responsive proteins involved in myogenic versus adipogenic differentiation. <i>Developmental Cell</i> , 2005 , 9, 39-49	10.2 58
2227	Head, shoulders, knees, and toes. 2005 , 282, 294-306	14
2226	Adipose development: from stem cell to adipocyte. 2005 , 40, 229-42	383
2225	Influence of serum on adult and fetal dermal fibroblast migration, adhesion, and collagen expression. 2005 , 41, 252-7	17
2224	Emergent patterns of growth controlled by multicellular form and mechanics. 2005 , 102, 11594-9	659
2223	Simple and versatile methods for the fabrication of arrays of live mammalian cells. 2006 , 6, 857-63	37
2222	Interfaces to Control Cell-Biomaterial Adhesive Interactions. 171-190	69
2221	Requirements for proximal tubule epithelial cell detachment in response to ischemia: role of oxidative stress. 2006 , 312, 3711-27	43
2220	On the digital trail of mobile cells. 2006 , 23, 54-62	62
2219	Viscoelastic retraction of single living stress fibers and its impact on cell shape, cytoskeletal organization, and extracellular matrix mechanics. 2006 , 90, 3762-73	511
2218	Distinct membrane mechanical properties of human mesenchymal stem cells determined using laser optical tweezers. 2006 , 90, 2582-91	107
2217	Chondrocyte phenotype in engineered fibrous matrix is regulated by fiber size. 2006 , 12, 1775-85	214
2216	Mechanotransduction involving multimodular proteins: converting force into biochemical signals. 2006 , 35, 459-88	349

2215	Microfabricated three-dimensional environments for single cell studies. 2006 , 1, P1	35
2214	Cellular mechanotransduction: putting all the pieces together again. 2006 , 20, 811-27	1240
2213	Microscale technologies for tissue engineering and biology. 2006 , 103, 2480-7	1304
2212	Modulation of chondrocyte phenotype for tissue engineering by designing the biologic-polymer carrier interface. 2006 , 7, 3012-8	19
2211	Gene expression, synthesis and degradation of hyaluronan during differentiation of 3T3-L1 adipocytes. 2006 , 452, 83-91	18
2210	A pericellular collagenase directs the 3-dimensional development of white adipose tissue. 2006 , 125, 577-91	305
2209	Forcing the third dimension. 2006 , 125, 429-31	13
2208	Matrix elasticity directs stem cell lineage specification. 2006 , 126, 677-89	10009
2207	Bidirectional ephrinB2-EphB4 signaling controls bone homeostasis. 2006 , 4, 111-21	594
2206	Vitronectin and collagen I differentially regulate osteogenesis in mesenchymal stem cells. 2006 , 347, 347-57	132
2205	Reorganization of actin filaments enhances chondrogenic differentiation of cells derived from murine embryonic stem cells. 2006 , 348, 421-7	28
2204	Actin filament organization regulates the induction of lens cell differentiation and survival. 2006 , 295, 714-29	53
2203	Mechanical control of tissue morphogenesis during embryological development. 2006 , 50, 255-66	275
2202	PPAR Gamma Activity and Control of Bone Mass in Skeletal Unloading. 2006 , 2006, 64807	28
2201	?????????:?????????. 2006 , 74, 905-910	
2200	Cellular responses to a nanofibrous environment. 2006 , 1, 34-43	56
2199	Serum-dependent effects on adult and fetal tendon fibroblast migration and collagen expression. 2006 , 14, 179-86	11
2198	Molecular aspects of tissue engineering in the dental field. 2006 , 41, 88-108	29

2197	Local force and geometry sensing regulate cell functions. 2006 , 7, 265-75	1728
2196	Adipocyte differentiation from the inside out. 2006 , 7, 885-96	1869
2195	RhoA GTPase inactivation by statins induces osteosarcoma cell apoptosis by inhibiting p42/p44-MAPKs-Bcl-2 signaling independently of BMP-2 and cell differentiation. 2006 , 13, 1845-56	93
2194	Surface engineering approaches to micropattern surfaces for cell-based assays. 2006 , 27, 3044-63	800
2193	Subcellular topological effect of particle monolayers on cell shapes and functions. 2006 , 53, 245-53	8
2192	Microstructured extracellular matrices in tissue engineering and development. 2006 , 17, 518-23	98
2191	Co-culture of human embryonic stem cells with murine embryonic fibroblasts on microwell-patterned substrates. 2006 , 27, 5968-77	184
2190	Electrical forces for microscale cell manipulation. 2006 , 8, 425-54	671
2189	Metabolic changes in mesenchymal stem cells in osteogenic medium measured by autofluorescence spectroscopy. 2006 , 24, 1213-7	54
2188	Three-dimensional nanofibrillar surfaces promote self-renewal in mouse embryonic stem cells. 2006 , 24, 426-33	200
2187	Regulation of proliferation and chondrogenic differentiation of human mesenchymal stem cells by laminin-5 (laminin-332). 2006 , 24, 2346-54	53
2186	Cell deposition system based on laser guidance. 2006 , 1, 1007-13	46
2185	Nanotechnology for cell-substrate interactions. 2006 , 34, 59-74	262
2184	Insights into autotransplantation: the unexpected discovery of specific induction systems in bone marrow stromal cells. 2006 , 63, 2764-72	31
2183	Two-dimensional patterning of thin coatings for the control of tissue outgrowth. 2006 , 27, 35-43	67
2182	The use of poly(ethylene glycol) hydrogels to investigate the impact of ECM chemistry and mechanics on smooth muscle cells. 2006 , 27, 4881-93	294
2181	Engineering tissues for in vitro applications. 2006 , 17, 524-31	112
2180	Potential for control of signaling pathways via cell size and shape. 2006 , 16, 1685-93	169

2179	Lysophosphatidic acid cooperates with 1 α ,25(OH) $_2$ D $_3$ in stimulating human MG63 osteoblast maturation. 2006 , 80, 46-61	39
2178	Morphogenetic adaptation of the looping embryonic heart to altered mechanical loads. 2006 , 235, 1822-9	46
2177	Adhesion of mesenchymal stem cells to polymer scaffolds occurs via distinct ECM ligands and controls their osteogenic differentiation. 2006 , 78, 73-85	166
2176	Biomimetic artificial ECMs stimulate bone regeneration. 2006 , 79, 815-26	59
2175	Gradient substrate assembly for quantifying cellular response to biomaterials. 2006 , 79, 974-88	40
2174	Playing with bone and fat. 2006 , 98, 251-66	426
2173	Inhibition of PPAR γ prevents type I diabetic bone marrow adiposity but not bone loss. 2006 , 209, 967-76	97
2172	Cell distribution of stress fibres in response to the geometry of the adhesive environment. 2006 , 63, 341-55	331
2171	Three-Dimensional Biochemical and Biomechanical Patterning of Hydrogels for Guiding Cell Behavior. 2006 , 18, 2679-2684	369
2170	Novel surface patterning approaches for tissue engineering and their effect on cell behavior. 2006 , 1, 73-90	44
2169	2nd International Symposium Interface Biology of Implants. 2006 , 7,	
2168	Distinct but overlapping functions for the closely related p190 RhoGAPs in neural development. 2006 , 28, 538-50	24
2167	Changes in gene expression foreshadow diet-induced obesity in genetically identical mice. 2006 , 2, e81	256
2166	Intrinsic mechanical properties of the extracellular matrix affect the behavior of pre-osteoblastic MC3T3-E1 cells. 2006 , 290, C1640-50	190
2165	Synergistic effects of CoCl $_2$ and ROCK inhibition on mesenchymal stem cell differentiation into neuron-like cells. 2006 , 119, 2667-78	124
2164	ROCK controls matrix synthesis in vascular smooth muscle cells: coupling vasoconstriction to vascular remodeling. 2006 , 99, 837-44	60
2163	Focal adhesions: paradigm for a signaling nexus. 2006 , 98, 606-16	211
2162	Microarraying the cellular microenvironment. 2006 , 2, 39	12

2161	Environmental cues to guide stem cell fate decision for tissue engineering applications. 2006 , 6, 847-66	64
2160	The consensus mechanics of cultured mammalian cells. 2006 , 103, 10259-10264	302
2159	Anisotropy of cell adhesive microenvironment governs cell internal organization and orientation of polarity. 2006 , 103, 19771-6	448
2158	Immunological synapse arrays: patterned protein surfaces that modulate immunological synapse structure formation in T cells. 2006 , 103, 5700-5	144
2157	Cellular adaptation to mechanical stress: role of integrins, Rho, cytoskeletal tension and mechanosensitive ion channels. 2006 , 119, 508-18	361
2156	Chronic effects of mechanical force on airways. 2006 , 68, 563-83	116
2155	Magnetic microposts as an approach to apply forces to living cells. 2007 , 104, 14553-8	276
2154	Reversine increases the plasticity of lineage-committed mammalian cells. 2007 , 104, 10482-7	85
2153	Filamin links cell shape and cytoskeletal structure to Rho regulation by controlling accumulation of p190RhoGAP in lipid rafts. 2007 , 120, 456-67	87
2152	Human adipose-derived adult stem cells upregulate palladin during osteogenesis and in response to cyclic tensile strain. 2007 , 293, C1532-8	42
2151	Micro-Scale Patterning of Cells and Their Environment. 2007 , 265-278	
2150	Mechanical loading down-regulates peroxisome proliferator-activated receptor gamma in bone marrow stromal cells and favors osteoblastogenesis at the expense of adipogenesis. 2007 , 148, 2553-62	248
2149	Cell adhesion strengthening: measurement and analysis. 2007 , 83, 329-46	9
2148	Demystifying the effects of a three-dimensional microenvironment in tissue morphogenesis. 2007 , 83, 547-83	62
2147	alpha6beta4 integrin activates Rac-dependent p21-activated kinase 1 to drive NF-kappaB-dependent resistance to apoptosis in 3D mammary acini. 2007 , 120, 3700-12	65
2146	P2X7 nucleotide receptors mediate blebbing in osteoblasts through a pathway involving lysophosphatidic acid. 2007 , 282, 3403-12	94
2145	Selectivity improvement in protein nanopatterning with a hydroxy-terminated self-assembled monolayer template. 2007 , 18, 305304	14
2144	Micromechanical control of cell-cell interactions. 2007 , 104, 5722-6	316

2143	Fragility and mechanosensing in a thermalized cytoskeleton model with forced protein unfolding. 2007 , 76, 051906	11
2142	Bone loss and increased bone adiposity in spontaneous and pharmacologically induced diabetic mice. 2007 , 148, 198-205	197
2141	p66Shc mediates anoikis through RhoA. 2007 , 179, 23-31	56
2140	Vascular endothelial growth factor can signal through platelet-derived growth factor receptors. 2007 , 177, 489-500	219
2139	Dynamic decapentaplegic signaling regulates patterning and adhesion in the Drosophila pupal retina. 2007 , 134, 1861-71	32
2138	Cytoskeletal changes of mesenchymal stem cells during differentiation. 2007 , 53, 219-28	169
2137	Mechanochemical Control of Cell Fate Switching. 2007 , 207-216	1
2136	Passive optical separation within a 'nondiffracting' light beam. 2007 , 12, 054017	16
2135	Retrospective and prospective responses arising in a modeled hippocampus during maze navigation by a brain-based device. 2007 , 104, 3556-61	38
2134	Stem cells and combinatorial science. 2007 , 10, 635-51	6
2133	Defective osteoblast function in ICAP-1-deficient mice. 2007 , 134, 2615-25	54
2132	Genetic and pharmacological inhibition of Rho-associated kinase II enhances adipogenesis. 2007 , 282, 29574-83	82
2131	A non-genetic basis for cancer progression and metastasis: self-organizing attractors in cell regulatory networks. 2006 , 26, 27-54	120
2130	Space flight rehabilitation. 2007 , 86, 583-91	28
2129	Molecular and cellular characterization of mouse calvarial osteoblasts derived from neural crest and paraxial mesoderm. 2007 , 120, 1783-1795	24
2128	The response of human mesenchymal stem cells to osteogenic signals and its impact on bone tissue engineering. 2007 , 2, 209-20	54
2127	BMP-4 treatment of C3H10T1/2 stem cells blocks expression of MMP-3 and MMP-13. 2007 , 353, 1097-104	24
2126	Differentiation of adipose stem cells by nucleus pulposus cells: configuration effect. 2007 , 359, 991-6	58

2125	Human adipose tissue-derived multipotent stem cells differentiate in vitro and in vivo into osteocyte-like cells. 2007 , 361, 342-8	68
2124	Platelet-derived growth factor receptor-alpha is a key determinant of smooth muscle alpha-actin filaments in bone marrow-derived mesenchymal stem cells. 2007 , 39, 379-91	49
2123	Oligonucleotide array analysis of cyclic tension-responsive genes in human periodontal ligament fibroblasts. 2007 , 39, 910-21	24
2122	Crosstalk between HIF-1 and ROCK pathways in neuronal differentiation of mesenchymal stem cells, neurospheres and in PC12 neurite outgrowth. 2007 , 35, 409-23	47
2121	Anemia of immobility: caused by adipocyte accumulation in bone marrow. 2007 , 69, 778-86	30
2120	Forced unfolding of proteins within cells. 2007 , 317, 663-6	295
2119	p27: tumor suppressor and oncogene ...?. 2007 , 17, 832-3	23
2118	Extracellular matrix, mechanotransduction and structural hierarchies in heart tissue engineering. 2007 , 362, 1267-79	142
2117	Influence of systematically varied nano-scale topography on cell morphology and adhesion. 2007 , 14, 181-94	38
2116	Microfabrication-based modulation of embryonic stem cell differentiation. 2007 , 7, 1018-28	132
2115	Engineering human embryonic stem cell differentiation. 2007 , 24, 243-61	8
2114	Micro- and nanoscale technologies for tissue engineering and drug discovery applications. 2007 , 2, 1653-68	61
2113	Adhesion Protein Protocols. 2007 ,	1
2112	Micro-well arrays for 3D shape control and high resolution analysis of single cells. 2007 , 7, 1074-7	181
2111	Smooth muscle cell signal transduction: implications of vascular biology for vascular surgeons. 2007 , 45 Suppl A, A15-24	84
2110	Biomaterials approach to expand and direct differentiation of stem cells. 2007 , 15, 467-80	239
2109	Controlling size, shape and homogeneity of embryoid bodies using poly(ethylene glycol) microwells. 2007 , 7, 786-94	323
2108	Mesenchymal stromal cells. Biology of adult mesenchymal stem cells: regulation of niche, self-renewal and differentiation. 2007 , 9, 204	667

2107	Altered membrane dynamics of quantum dot-conjugated integrins during osteogenic differentiation of human bone marrow derived progenitor cells. 2007 , 92, 1399-408	62
2106	Modulation of cellular mechanics during osteogenic differentiation of human mesenchymal stem cells. 2007 , 93, 3693-702	228
2105	Disruption of heparan and chondroitin sulfate signaling enhances mesenchymal stem cell-derived osteogenic differentiation via bone morphogenetic protein signaling pathways. 2007 , 25, 2845-54	84
2104	Versatile, fully automated, microfluidic cell culture system. 2007 , 79, 8557-63	524
2103	Multiphase electropatterning of cells and biomaterials. 2007 , 7, 702-9	70
2102	Cell sensing and response to micro- and nanostructured surfaces produced by chemical and topographic patterning. 2007 , 13, 1879-91	446
2101	3D Cell Shape and Cell Fate are Regulated by the Dynamic Micro-Mechanical Properties of the Cell-ECM Interface. 2007 ,	
2100	Signaling and transcriptional regulation in osteoblast commitment and differentiation. 2007 , 12, 3068-92	356
2099	Mechanobiology of mesenchymal stem cells and their use in cardiovascular repair. 2007 , 12, 5098-116	71
2098	Embryonic Stem Cells as a Cell Source for Tissue Engineering. 2007 , 445-458	
2097	. 2007 ,	49
2096	Micro- and Nanoscale Control of Cellular Environment for Tissue Engineering. 347-364	4
2095	Polyelectrolyte-Clay-Protein Layer Films on Microfluidic PDMS Bioreactor Surfaces for Primary Murine Bone Marrow Culture. 2007 , 17, 2701-2709	46
2094	Integrin alpha(5) controls osteoblastic proliferation and differentiation responses to titanium substrates presenting different roughness characteristics in a roughness independent manner. 2007 , 80, 700-10	120
2093	Enhancement of in vitro osteogenesis on titanium by chemically produced nanotopography. 2007 , 80, 554-64	165
2092	Biomimetic interfacial interpenetrating polymer networks control neural stem cell behavior. 2007 , 81, 240-9	88
2091	The addition of biphasic calcium phosphate to porous chitosan scaffolds enhances bone tissue development in vitro. 2007 , 81, 624-33	55
2090	Nanomechanotransduction and interphase nuclear organization influence on genomic control. 2007 , 102, 1234-44	83

2089	Understanding the pathology and mechanisms of type I diabetic bone loss. 2007 , 102, 1343-57	191
2088	Cytoskeleton/stretch-activated ion channel interaction regulates myogenic differentiation of skeletal myoblasts. 2007 , 211, 296-306	67
2087	Magnetic nanoparticle labeling of mesenchymal stem cells without transfection agent: cellular behavior and capability of detection with clinical 1.5 T magnetic resonance at the single cell level. 2007 , 58, 717-24	103
2086	Donor variation and loss of multipotency during in vitro expansion of human mesenchymal stem cells for bone tissue engineering. 2007 , 25, 1029-41	237
2085	Polymers to direct cell fate by controlling the microenvironment. 2007 , 18, 448-53	126
2084	Designing synthetic materials to control stem cell phenotype. 2007 , 11, 381-7	193
2083	High-throughput analysis of signals regulating stem cell fate and function. 2007 , 11, 357-66	80
2082	The development of high-throughput screening approaches for stem cell engineering. 2007 , 11, 388-93	37
2081	Adipose tissue engineering with naturally derived scaffolds and adipose-derived stem cells. 2007 , 28, 3834-42	131
2080	Fabrication methods of an engineered microenvironment for analysis of cell-biomaterial interactions. 2007 , 28, 126-33	98
2079	Adipogenesis of murine embryonic stem cells in a three-dimensional culture system using electrospun polymer scaffolds. 2007 , 28, 450-8	118
2078	Engineered matrix coatings to modulate the adhesion of CD133+ human hematopoietic progenitor cells. 2007 , 28, 836-43	60
2077	The effect of actin disrupting agents on contact guidance of human embryonic stem cells. 2007 , 28, 4068-77	190
2076	Plasticité des cellules ostéoprogénitrices. 2007 , 74, 934-937	
2075	Proteome of mesenchymal stem cells. 2007 , 7, 2881-94	62
2074	The control of human mesenchymal cell differentiation using nanoscale symmetry and disorder. 2007 , 6, 997-1003	1967
2073	Flexible and dynamic organization of bone marrow stromal compartment. 2007 , 139, 373-84	11
2072	Plasticity of osteoprogenitor cells. 2007 , 74, 536-9	3

2071	Activation of ROCK by RhoA is regulated by cell adhesion, shape, and cytoskeletal tension. 2007 , 313, 3616-23	196
2070	Myosin II and mechanotransduction: a balancing act. 2007 , 17, 178-86	165
2069	Stem cell therapies for heart disease: why do we need bioengineers?. 2007 , 26, 76-9	2
2068	Role of paragenome in development. 2007 , 38, 104-123	3
2067	Design of tissue engineering scaffolds as delivery devices for mechanical and mechanically modulated signals. 2007 , 13, 2525-38	41
2066	What lies at the interface of regenerative medicine and developmental biology?. 2007 , 134, 2541-7	59
2065	High-throughput screening of gene function in stem cells using clonal microarrays. 2007 , 25, 2928-35	20
2064	Cellular and multicellular form and function. 2007 , 59, 1319-28	72
2063	Micromechanical control of cell and tissue development: implications for tissue engineering. 2007 , 59, 1306-18	173
2062	The effects of nanoscale pits on primary human osteoblast adhesion formation and cellular spreading. 2007 , 18, 399-404	121
2061	Rapid growth of cartilage rudiments may generate perichondrial structures by mechanical induction. 2007 , 6, 127-37	17
2060	The emergence of ECM mechanics and cytoskeletal tension as important regulators of cell function. 2007 , 47, 300-20	155
2059	Brushes, cables, and anchors: recent insights into multiscale assembly and mechanics of cellular structural networks. 2007 , 47, 348-60	18
2058	RhoGTPases in stem cells. 2007 , 52, 3025-3028	2
2057	Myoblast alignment and differentiation on cell culture substrates with microscale topography and model chemistries. 2007 , 28, 2202-10	198
2056	Proliferation and differentiation of adipose-derived stem cells on naturally derived scaffolds. 2008 , 29, 1862-71	71
2055	Spatial patterning of gene expression using surface-immobilized recombinant adenovirus. 2008 , 10, 561-6	12
2054	Quantitative analysis of the responses of murine bone marrow mesenchymal stem cells to EGF, PDGF-BB and fibronectin by factorial design methodology. 2008 , 58, 93-101	3

2053	Micro- and nanometer-scale patterned surface in a microchannel for cell culture in microfluidic devices. 2008 , 390, 817-23	45
2052	Patterning Cell and Tissue Function. 2008 , 1, 15-23	20
2051	How Cells feel their environment: a focus on early dynamic events. 2008 , 1, 5-14	24
2050	Hydrostatic pressure enhances chondrogenic differentiation of human bone marrow stromal cells in osteochondrogenic medium. 2008 , 36, 813-20	111
2049	The mechanical environment of bone marrow: a review. 2008 , 36, 1978-91	212
2048	Probing cellular microenvironments and tissue remodeling by atomic force microscopy. 2008 , 456, 29-49	72
2047	Contractility-dependent modulation of cell proliferation and adhesion by microscale topographical cues. 2008 , 4, 1416-24	44
2046	Cell-compatible, multicomponent protein arrays with subcellular feature resolution. 2008 , 4, 1600-4	31
2045	Collagen nanofibres are a biomimetic substrate for the serum-free osteogenic differentiation of human adipose stem cells. 2008 , 2, 210-20	39
2044	ASARM-truncated MEPE and AC-100 enhance osteogenesis by promoting osteoprogenitor adhesion. 2008 , 26, 1256-62	18
2043	Cell shape regulates collagen type I expression in human tendon fibroblasts. 2008 , 65, 332-41	59
2042	Mechanotransduction from the ECM to the genome: are the pieces now in place?. 2008 , 104, 1964-87	113
2041	N-acetylcysteine stimulates osteoblastic differentiation of mouse calvarial cells. 2008 , 103, 1246-55	55
2040	Change in cell shape is required for matrix metalloproteinase-induced epithelial-mesenchymal transition of mammary epithelial cells. 2008 , 105, 25-33	105
2039	Interactions between integrin ligand density and cytoskeletal integrity regulate BMSC chondrogenesis. 2008 , 217, 145-54	83
2038	The role of matrix stiffness in regulating cell behavior. 2008 , 47, 1394-400	701
2037	Temperature-Induced Size-Control of Bioactive Surface Patterns. 2008 , 18, 1501-1508	41
2036	Enhancement of In Vitro Capillary Tube Formation by Substrate Nanotopography. 2008 , 20, 99-103	151

2035	Advanced biomaterials for skeletal tissue regeneration: Instructive and smart functions. 2008 , 59, 38-71	174
2034	Enrichment of undifferentiated mouse embryonic stem cells on a culture surface with a glucose-displaying dendrimer. 2008 , 29, 4236-43	14
2033	Cultured stem cells are sensitive to gravity changes. 2008 , 63, 603-608	19
2032	Micro-stamped surfaces for the patterned growth of neural stem cells. 2008 , 29, 4766-74	84
2031	Adipogenic human adenovirus Ad-36 induces commitment, differentiation, and lipid accumulation in human adipose-derived stem cells. 2008 , 26, 969-78	83
2030	Oxytocin controls differentiation of human mesenchymal stem cells and reverses osteoporosis. 2008 , 26, 2399-407	136
2029	Emergence of patterned stem cell differentiation within multicellular structures. 2008 , 26, 2921-7	345
2028	Effects of growth factors on multipotent bone marrow mesenchymal stromal cells. 2008 , 35, 555-570	3
2027	Controlled differentiation of stem cells. 2008 , 60, 199-214	261
2026	Identification of a role for the ARHGEF3 gene in postmenopausal osteoporosis. 2008 , 82, 1262-9	33
2025	The requirement for SNF5/INI1 in adipocyte differentiation highlights new features of malignant rhabdoid tumors. 2008 , 27, 2035-44	50
2024	Mechanical feedback in morphogenesis and cell differentiation. 2008 , 53, 575-579	3
2023	Small functional groups for controlled differentiation of hydrogel-encapsulated human mesenchymal stem cells. 2008 , 7, 816-23	683
2022	Organelle positioning and cell polarity. 2008 , 9, 874-86	136
2021	Disruption of cell-matrix interactions by heparin enhances mesenchymal progenitor adipocyte differentiation. 2008 , 314, 3382-91	33
2020	Cell adhesion receptors in mechanotransduction. 2008 , 20, 551-6	318
2019	Focal adhesion kinase mediates defects in the force-dependent reinforcement of initial integrin-cytoskeleton linkages in metastatic colon cancer cell lines. 2008 , 87, 1-16	18
2018	The role of palladin in actin organization and cell motility. 2008 , 87, 517-25	60

2017	Smart biomaterials for tissue engineering of cartilage. 2008 , 39 Suppl 1, S77-87	86
2016	Researching into the cellular shape, volume and elasticity of mesenchymal stem cells, osteoblasts and osteosarcoma cells by atomic force microscopy. 2008 , 12, 537-52	149
2015	Can cancer be reversed by engineering the tumor microenvironment?. 2008 , 18, 356-64	229
2014	Tensegrity-based mechanosensing from macro to micro. 2008 , 97, 163-79	298
2013	Internalization of mesoporous silica nanoparticles induces transient but not sufficient osteogenic signals in human mesenchymal stem cells. 2008 , 231, 208-15	107
2012	Combining nebulization-mediated transfection and polymer microarrays for the rapid determination of optimal transfection substrates. 2008 , 10, 179-84	25
2011	Mechanical control of stem cell differentiation. 2008 ,	15
2010	Osteogenic properties of human myogenic progenitor cells. 2008 , 125, 257-69	39
2009	Micropatterning of single endothelial cell shape reveals a tight coupling between nuclear volume in G1 and proliferation. 2008 , 94, 4984-95	155
2008	Fast fluorescence laser tracking microrheometry, II: quantitative studies of cytoskeletal mechanotransduction. 2008 , 95, 895-909	26
2007	Substrate modulus directs neural stem cell behavior. 2008 , 95, 4426-38	826
2006	Cell culture models in microfluidic systems. 2008 , 1, 423-49	272
2005	Mechanically based generative laws of morphogenesis. 2008 , 5, 015009	57
2004	Genomic expression of mesenchymal stem cells to altered nanoscale topographies. 2008 , 5, 1055-65	73
2003	Modulation of stem cell shape and fate B: mechanical modulation of cell shape and gene expression. 2008 , 14, 1573-80	69
2002	BioNanoFluidic MEMS. 2008 ,	3
2001	Bioengineering in Cell and Tissue Research. 2008 ,	5
2000	Osteoclast-osteoblast communication. 2008 , 473, 201-9	511

1999	Patterning stem cell differentiation. 2008 , 3, 362-3	12
1998	Mechanical modulation of osteochondroprogenitor cell fate. 2008 , 40, 2720-38	84
1997	Peptide array-based screening of human mesenchymal stem cell-adhesive peptides derived from fibronectin type III domain. 2008 , 371, 85-9	36
1996	Beta1 integrins regulate chondrogenesis and rock signaling in adipose stem cells. 2008 , 372, 547-52	20
1995	Localized decrease of beta-catenin contributes to the differentiation of human embryonic stem cells. 2008 , 372, 601-6	11
1994	Stathmin-like 2, a developmentally-associated neuronal marker, is expressed and modulated during osteogenesis of human mesenchymal stem cells. 2008 , 374, 64-8	21
1993	Patterning fluid and elastomeric surfaces using short-wavelength UV radiation and photogenerated reactive oxygen species. 2008 , 59, 411-32	10
1992	Modulation of stem cell shape and fate A: the role of density and seeding protocol on nucleus shape and gene expression. 2008 , 14, 1561-72	67
1991	Extracellular matrix dynamics in development and regenerative medicine. 2008 , 121, 255-64	720
1990	Geometric control of stem cell differentiation rate on surfaces. 2008 , 24, 12129-33	64
1989	cAMP/PKA pathway activation in human mesenchymal stem cells in vitro results in robust bone formation in vivo. 2008 , 105, 7281-6	180
1988	Directing osteogenic and myogenic differentiation of MSCs: interplay of stiffness and adhesive ligand presentation. 2008 , 295, C1037-44	406
1987	Cyclic AMP (cAMP)-mediated stimulation of adipocyte differentiation requires the synergistic action of Epac- and cAMP-dependent protein kinase-dependent processes. 2008 , 28, 3804-16	115
1986	RhoA-dependent regulation of cell migration by the tumor suppressor hSNF5/INI1. 2008 , 68, 6154-61	47
1985	Adipose tissue engineering with cells in engineered matrices. 2008 , 4, 228-35	70
1984	Nanobiotechnology and cell biology: micro- and nanofabricated surfaces to investigate receptor-mediated signaling. 2008 , 37, 265-88	79
1983	Mesenchymal stem cells for vascular regeneration. 2008 , 3, 877-92	97
1982	Mechanotransduction - a field pulling together?. 2008 , 121, 3285-92	400

1981	Mechanical aspects of developmental biology: perspectives on growth and form in the (post)-genomic age. Preface. 2008 , 5, 015001	18
1980	Mechanical control of tissue morphogenesis. 2008 , 103, 234-43	121
1979	Mechanotransduction and anoikis: death and the homeless cell. 2008 , 7, 2462-5	18
1978	The geometric and spatial constraints of the microenvironment induce oligodendrocyte differentiation. 2008 , 105, 14662-7	151
1977	Fibronectin fibrillogenesis regulates three-dimensional neovessel formation. 2008 , 22, 1231-43	164
1976	Attachment, proliferation and adipogenic differentiation of adipo-stromal cells on self-assembled monolayers of different chemical compositions. 2008 , 19, 893-914	14
1975	Engineering Cellular Microenvironments. 2008 , 536-553	
1974	Grafting Poly(ethylene glycol) to a Glass Surface via a Photocleavable Linker for Light-induced Cell Micropatterning and Cell Proliferation Control. 2008 , 37, 1062-1063	34
1973	ASB2 targets filamins A and B to proteasomal degradation. 2008 , 112, 5130-40	64
1972	Recent advances in cell micropatterning techniques for bioanalytical and biomedical sciences. 2008 , 24, 67-72	97
1971	Microscale Technologies for Tissue Engineering. 2008 , 349-369	6
1970	Cell Matrix Adhesion in Three Dimensions. 135-149	
1969	Rho signaling and mechanical control of vascular development. 2008 , 15, 228-34	51
1968	Osteoblast Biology. 2008 , 93-150	5
1967	. 2008 ,	3
1966	Scaffold stiffness influences cell behavior: opportunities for skeletal tissue engineering. 2008 , 2, 103-9	129
1965	Identification of genes downregulated during differentiation of porcine mesenteric adipocytes. 2008 , 86, 3367-76	4
1964	Cellular signaling. 2008 , 89-120	

1963	In-situ?????????????????????. 2008 , 59, 371-376	1
1962	. 2009 ,	3
1961	Signaling networks that control the lineage commitment and differentiation of bone cells. 2009 , 19, 1-46	112
1960	Tensegrity as a Mechanism for Integrating Molecular and Cellular Mechanotransduction Mechanisms. 196-219	2
1959	Translating Mechanical Force into Discrete Biochemical Signal Changes. 286-338	
1958	Bone cells-biomaterials interactions. 2009 , 14, 1023-67	47
1957	Non-canonical Wnt signaling and N-cadherin related beta-catenin signaling play a role in mechanically induced osteogenic cell fate. 2009 , 4, e5388	137
1956	Epigenetic regulation of adipocyte differentiation by a Rho guanine nucleotide exchange factor, WGEF. 2009 , 4, e5809	25
1955	Phenotypic plasticity of mouse spermatogonial stem cells. 2009 , 4, e7909	71
1954	Nanotubes guide mesenchymal stem cells toward becoming bone. 2009 ,	
1953	The natural and engineered 3D microenvironment as a regulatory cue during stem cell fate determination. 2009 , 15, 371-80	144
1952	Extracellular matrix remodeling, integrin expression, and downstream signaling pathways influence the osteogenic differentiation of mesenchymal stem cells on poly(lactide-co-glycolide) substrates. 2009 , 15, 273-83	78
1951	Inhibition of ERK promotes collagen gel compaction and fibrillogenesis to amplify the osteogenesis of human mesenchymal stem cells in three-dimensional collagen I culture. 2009 , 18, 331-41	36
1950	Atomic force microscopy-based single-cell indentation: Experimentation and finite element simulation. 2009 ,	25
1949	Actomyosin stiffens the vertebrate embryo during crucial stages of elongation and neural tube closure. 2009 , 136, 677-88	157
1948	A high-throughput array for mechanical stimulation of adherent biological cells. 2009 ,	1
1947	An adaptor role for cytoplasmic Sam68 in modulating Src activity during cell polarization. 2009 , 29, 1933-43	37
1946	Regulation of adipogenic differentiation by LAR tyrosine phosphatase in human mesenchymal stem cells and 3T3-L1 preadipocytes. 2009 , 122, 4160-7	54

- 1945 Mechanically induced osteogenic differentiation--the role of RhoA, ROCKII and cytoskeletal dynamics. **2009**, 122, 546-53 302
- 1944 Microfabricated tissue gauges to measure and manipulate forces from 3D microtissues. **2009**, 106, 10097-102 307
- 1943 Embryonic germ cells are capable of adipogenic differentiation in vitro and in vivo. **2009**, 15, 479-86 16
- 1942 Vascular regeneration: engineering the stem cell microenvironment. **2009**, 4, 435-47 17
- 1941 Regulation of osteoblast differentiation by slit2 in osteoblastic cells. **2009**, 190, 69-80 29
- 1940 Mechanical characterization of differentiated human embryonic stem cells. **2009**, 131, 061011 41
- 1939 cAMP/PKA signaling inhibits osteogenic differentiation and bone formation in rodent models. **2009**, 15, 2135-43 33
- 1938 Osteogenic potential of polymer-bound bone morphogenetic protein-2 on MC3T3-E1 two-dimensional cell cultures. **2009**, 124, 2199-2200 3
- 1937 Massive gluteal calcinosis in a 10-year-old girl with juvenile dermatomyositis: successful surgical management. **2009**, 124, 456e-458e 12
- 1936 Re: Surface area measurement of the female breast: Phase I. Validation of a novel optical technique. **2009**, 124, 2194
- 1935 Elimination of frontal sinus because of fronto-oronasal communication after trauma. **2009**, 124, 2189-2190
- 1934 Nipple-sparing mastectomy: what is the best evidence for safety?. **2009**, 124, 2195-2197 15
- 1933 Re: Technique of internal mammary dissection using pectoralis major flap to prevent contour deformities. **2009**, 124, 2192-2193
- 1932 Protein kinase G controls brown fat cell differentiation and mitochondrial biogenesis. **2009**, 2, ra78 103
- 1931 Rho kinase-1 mediates cardiac fibrosis by regulating fibroblast precursor cell differentiation. **2009**, 83, 511-8 84
- 1930 Practical induction system for dopamine-producing cells from bone marrow stromal cells using spermine-pullulan-mediated reverse transfection method. **2009**, 15, 1655-65 22
- 1929 New directions in nanofibrous scaffolds for soft tissue engineering and regeneration. **2009**, 6, 515-32 90
- 1928 Application of stem cells for articular cartilage regeneration. **2009**, 22, 60-71 36

1927	Micro- and nanoscale control of the cardiac stem cell niche for tissue fabrication. 2009 , 15, 443-54	70
1926	Time-lapse observation of cell alignment on nanogrooved patterns. 2009 , 6 Suppl 3, S269-77	119
1925	Micropatterning of human embryonic stem cells dissects the mesoderm and endoderm lineages. 2009 , 2, 155-62	83
1924	Modulation of DNA glycosylase activities in mesenchymal stem cells. 2009 , 315, 2558-67	6
1923	Geometric control of tissue morphogenesis. 2009 , 1793, 903-10	66
1922	From mechanotransduction to extracellular matrix gene expression in fibroblasts. 2009 , 1793, 911-20	285
1921	Cytoskeletal control of growth and cell fate switching. 2009 , 21, 864-70	170
1920	Engineering Microenvironments to Control Stem Cell Functions. 311-326	
1919	A New Approach for Adipose Tissue Regeneration Based on Human Mesenchymal Stem Cells in Contact to Hydrogels—In Vitro Study. 2009 , 11, B155-B161	19
1918	Controlled growth factor delivery for tissue engineering. 2009 , 21, 3269-85	320
1917	Die Entwicklung von Substrattopographien im Mikro- und Nanobereich zur Steuerung von Zellfunktionen. 2009 , 121, 5512-5522	12
1916	Indole-3-carbinol inhibits MDA-MB-231 breast cancer cell motility and induces stress fibers and focal adhesion formation by activation of Rho kinase activity. 2009 , 124, 2294-302	45
1915	PLGA doping of PCL affects the plastic potential of human mesenchymal stem cells, both in the presence and absence of biological stimuli. 2009 , 89, 1-12	13
1914	Osteogenic differentiation of human mesenchymal stem cells on poly(ethylene glycol)-variant biomaterials. 2009 , 91, 975-84	37
1913	Patterning N-type and S-type neuroblastoma cells with Pluronic F108 and ECM proteins. 2010 , 93, 673-86	16
1912	Three-dimensional porous scaffolds at the crossroads of tissue engineering and cell-based gene therapy. 2009 , 108, 537-46	51
1911	Geometry and force control of cell function. 2009 , 108, 1047-58	51
1910	Substrate rigidity regulates Ca ²⁺ oscillation via RhoA pathway in stem cells. 2009 , 218, 285-93	104

1909	Thymosin beta-4 directs cell fate determination of human mesenchymal stem cells through biophysical effects. 2010 , 28, 131-8	18
1908	Modulation of osteogenic differentiation of human mesenchymal stem cells by poly[(L-lactide)-co-(epsilon-caprolactone)]/gelatin nanofibers. 2009 , 9, 795-804	31
1907	Engineering substrate topography at the micro- and nanoscale to control cell function. 2009 , 48, 5406-15	991
1906	Relocations of cell convergence sites and formation of pharyngula-like shapes in mechanically relaxed <i>Xenopus</i> embryos. 2009 , 219, 1-10	17
1905	Localization of diacylglycerol kinase epsilon on stress fibers in vascular smooth muscle cells. 2009 , 337, 167-75	16
1904	Biomechanics: cell research and applications for the next decade. 2009 , 37, 847-59	147
1903	The influence of hydrogel modulus on the proliferation and differentiation of encapsulated neural stem cells. 2009 , 30, 4695-9	478
1902	Expression, signaling, and function of P2X7 receptors in bone. 2009 , 5, 205-21	80
1901	Influence of fabrication parameters in cellular microarrays for stem cell studies. 2009 , 20, 1525-33	6
1900	Mechanical signaling on the single protein level studied using steered molecular dynamics. 2009 , 55, 141-52	26
1899	Matrix strains induced by cells: Computing how far cells can feel. 2009 , 2, 39-48	150
1898	Dissecting the Molecular Basis of the Mechanics of Living Cells. 2009 , 49, 11-23	16
1897	Plasma stencilling methods for cell patterning. 2009 , 395, 601-9	57
1896	[Regenerative medicine in orthopaedics. Cell therapy - tissue engineering - in situ regeneration]. 2009 , 38, 859-67; quiz 868-9	1
1895	From single cells to tissue architecture-a bottom-up approach to modelling the spatio-temporal organisation of complex multi-cellular systems. 2009 , 58, 261-83	73
1894	Methods for Cell Micropatterning on Two-Dimensional Surfaces and Their Applications in Biology. 2009 , 37, 943-949	23
1893	Cell adhesion and spreading affect adipogenesis from embryonic stem cells: the role of calreticulin. 2009 , 27, 2092-102	21
1892	Timing, rather than the concentration of cyclic AMP, correlates to osteogenic differentiation of human mesenchymal stem cells. 2010 , 4, 356-65	19

1891	Mesenchymal stem cell differentiation and roles in regenerative medicine. 2009 , 1, 97-106	87
1890	Visualizing the effect of microenvironment on the spatiotemporal RhoA and Src activities in living cells by FRET. 2009 , 5, 1453-9	5
1889	Plasma Polymer Coatings to Support Mesenchymal Stem Cell Adhesion, Growth and Differentiation on Variable Stiffness Silicone Elastomers. 2009 , 6, 831-839	43
1888	Gravity, a regulation factor in the differentiation of rat bone marrow mesenchymal stem cells. 2009 , 16, 87	76
1887	Cadherin-mediated cell-cell contact regulates keratinocyte differentiation. 2009 , 129, 564-72	43
1886	Physical approaches to biomaterial design. 2009 , 8, 15-23	1103
1885	Patterning: Cells nourished by nanodrops. 2009 , 8, 700-2	4
1884	A tense situation: forcing tumour progression. 2009 , 9, 108-22	1315
1883	Quantitative approaches in developmental biology. 2009 , 10, 517-30	117
1882	Mechanotransduction in development: a growing role for contractility. 2009 , 10, 34-43	589
1881	The matrix revolutions. 2009 , 10, 653	
1880	Human alveolar bone cell proliferation, expression of osteoblastic phenotype, and matrix mineralization on porous titanium produced by powder metallurgy. 2009 , 20, 472-81	47
1879	Surface modification by 2-methacryloyloxyethyl phosphorylcholine coupled to a photolabile linker for cell micropatterning. 2009 , 30, 1413-20	74
1878	Integrating polyurethane culture substrates into poly(dimethylsiloxane) microdevices. 2009 , 30, 5241-50	21
1877	In vitro model of mesenchymal condensation during chondrogenic development. 2009 , 30, 6530-40	61
1876	The correlation between human adipose-derived stem cells differentiation and cell adhesion mechanism. 2009 , 30, 6835-43	53
1875	SU-8 microstructure for quasi-three-dimensional cell-based biosensing. 2009 , 140, 349-355	19
1874	Regulation of osteoblast and adipocyte differentiation from human mesenchymal stem cells by conjugated linoleic acid. 2009 , 20, 956-64	41

1873	Convergent extension by intercalation without mediolaterally fixed cell motion. 2009 , 256, 180-6	3
1872	Regulation of cellular morphology using temperature-responsive hydrogel for integrin-mediated mechanical force stimulation. 2009 , 30, 1421-7	31
1871	Formation of a human-derived fat tissue layer in P(DL)GA hollow fibre scaffolds for adipocyte tissue engineering. 2009 , 30, 1910-7	28
1870	Nanoscale presentation of cell adhesive molecules via block copolymer self-assembly. 2009 , 30, 4732-7	50
1869	The use of nanoscale topography to modulate the dynamics of adhesion formation in primary osteoblasts and ERK/MAPK signalling in STRO-1+ enriched skeletal stem cells. 2009 , 30, 5094-103	222
1868	A star-PEG-heparin hydrogel platform to aid cell replacement therapies for neurodegenerative diseases. 2009 , 30, 5049-60	254
1867	The growth and differentiation of mesenchymal stem and progenitor cells cultured on aligned collagen matrices. 2009 , 30, 5950-8	98
1866	Using self-assembled monolayers to model the extracellular matrix. 2009 , 5, 832-41	123
1865	Microengineered platforms for cell mechanobiology. 2009 , 11, 203-33	317
1864	Stem cell fate dictated solely by altered nanotube dimension. 2009 , 106, 2130-5	983
1863	Effects of artificial micro- and nano-structured surfaces on cell behaviour. 2009 , 191, 126-35	322
1862	Mesenchymal stem cell differentiation on microstructured poly (methyl methacrylate) substrates. 2009 , 191, 136-44	35
1861	Electrospun scaffolds for stem cell engineering. 2009 , 61, 1084-96	254
1860	Cytoskeleton structure and adhesion properties of human stromal precursors under conditions of simulated microgravity. 2009 , 3, 423-430	16
1859	ECM compliance regulates osteogenesis by influencing MAPK signaling downstream of RhoA and ROCK. 2009 , 24, 886-98	159
1858	Common sequence variation in FLNB regulates bone structure in women in the general population and FLNB mRNA expression in osteoblasts in vitro. 2009 , 24, 1989-97	17
1857	Patterning discrete stem cell culture environments via localized self-assembled monolayer replacement. 2009 , 25, 12825-34	44
1856	Monolayer and spheroid culture of human liver hepatocellular carcinoma cell line cells demonstrate distinct global gene expression patterns and functional phenotypes. 2009 , 15, 559-67	216

1855	Smooth muscle cell phenotype modulation and contraction on native and cross-linked polyelectrolyte multilayers. 2009 , 10, 3062-8	49
1854	Nanostructured surfaces: cell engineering and cell biology. 2009 , 4, 247-8	36
1853	Mechanical control of global cell behaviour during dorsal closure in Drosophila. 2009 , 136, 1889-98	120
1852	RhoA promotes differentiation of WB-F344 cells into the biliary lineage. 2009 , 77, 154-61	8
1851	Degenerative muscle fiber accelerates adipogenesis of intramuscular cells via RhoA signaling pathway. 2009 , 77, 350-9	29
1850	Further genetic evidence suggesting a role for the RhoGTPase-RhoGEF pathway in osteoporosis. 2009 , 45, 387-91	21
1849	Contributions of extracellular matrix signaling and tissue architecture to nuclear mechanisms and spatial organization of gene expression control. 2009 , 1790, 925-35	56
1848	RhoA induces expression of inflammatory cytokine in adipocytes. 2009 , 379, 288-92	18
1847	Effect of cell density on adipogenic differentiation of mesenchymal stem cells. 2009 , 381, 322-7	38
1846	Adapting collagen/CNT matrix in directing hESC differentiation. 2009 , 381, 508-12	86
1845	Matrix elasticity regulates the secretory profile of human bone marrow-derived multipotent mesenchymal stromal cells (MSCs). 2009 , 389, 663-7	69
1844	Wnt signaling controls the fate of mesenchymal stem cells. 2009 , 433, 1-7	319
1843	One flew over the progenitor's nest: migratory cells find a home in osteoarthritic cartilage. 2009 , 4, 282-4	25
1842	Control of stem cell fate by physical interactions with the extracellular matrix. 2009 , 5, 17-26	1459
1841	The physical state of fibronectin matrix differentially regulates morphogenetic movements in vivo. 2009 , 327, 386-98	75
1840	Identification of a mechanochemical checkpoint and negative feedback loop regulating branching morphogenesis. 2009 , 336, 169-82	74
1839	Controlling cellular biomechanics of human mesenchymal stem cells. 2009 , 2009, 2090-3	14
1838	Engineered microenvironments for controlled stem cell differentiation. 2009 , 15, 205-19	370

1837	Growth factors, matrices, and forces combine and control stem cells. 2009 , 324, 1673-7	2065
1836	Microenvironmental Determinants of Stem Cell Fate. 2009 , 647-663	
1835	Multi-scale mechanics from molecules to morphogenesis. 2009 , 41, 2147-62	60
1834	Cellular and molecular basis of pulmonary arterial hypertension. 2009 , 54, S20-S31	609
1833	From spindle to spherical: Is spherical shape a potential predictor of human mesenchymal stem cells with increased differentiation capability?. 2009 , 2, 407-409	1
1832	Post-traumatic pseudolipomas--a review and postulated mechanisms of their development. 2009 , 62, 737-41	12
1831	Dissecting the impact of matrix anchorage and elasticity in cell adhesion. 2009 , 97, 2154-63	29
1830	Contribution of the cytoskeleton to the compressive properties and recovery behavior of single cells. 2009 , 97, 1873-82	75
1829	Characterization of Matrigel interfaces during defined human embryonic stem cell culture. 2009 , 4, 69-79	57
1828	Critical involvement of Rho GTPase activity in the efficient transplantation of neural stem cells into the injured spinal cord. 2009 , 2, 37	14
1827	Cell mechanics: dissecting the physical responses of cells to force. 2009 , 11, 259-88	240
1826	Proteomic analysis of monkey embryonic stem cell during differentiation. 2009 , 8, 1527-39	18
1825	Photopatterned thiol surfaces for biomolecule immobilization. 2009 , 25, 12275-82	29
1824	Stem cell differentiation by functionalized micro- and nanostructured surfaces. 2009 , 4, 65-82	77
1823	Living-cell microarrays. 2009 , 11, 235-57	117
1822	Substrate topography shapes cell function. 2009 , 5, 4072	114
1821	Crosslinking of cell-derived 3D scaffolds up-regulates the stretching and unfolding of new extracellular matrix assembled by reseeded cells. 2009 , 1, 635-48	53
1820	Altered calcium dynamics mediates P19-derived neuron-like cell responses to millimeter-wave radiation. 2009 , 172, 725-36	17

1819	NASA-approved rotary bioreactor enhances proliferation and osteogenesis of human periodontal ligament stem cells. 2009 , 18, 1273-82	41
1818	Micropatterning of bioactive self-assembling gels. 2009 , 5, 1228-1236	124
1817	Polymeric Materials for Ex vivo Expansion of Hematopoietic Progenitor and Stem Cells. 2009 , 49, 181-200	23
1816	Adipose-derived stem cells for soft tissue reconstruction. 2009 , 4, 109-17	67
1815	Developing an in-vitro mechanical stretching system for molecular cell biology studies (in English). 2009 ,	
1814	Emerging concepts in the pathogenesis of lung fibrosis. 2009 , 175, 3-16	177
1813	In silico biology of bone modelling and remodelling: regeneration. 2009 , 367, 2031-53	48
1812	Bone marrow-derived human mesenchymal stem cells become quiescent on soft substrates but remain responsive to chemical or mechanical stimuli. 2009 , 15, 147-54	282
1811	Extracellular matrix and tissue engineering applications. 2009 , 19, 5474	54
1810	Multiscale modeling of form and function. 2009 , 324, 208-12	149
1809	Designing materials to direct stem-cell fate. 2009 , 462, 433-41	1162
1808	Reply. 2009 , 124, 2200	
1807	Contribution to histologic analysis of mastectomy scars following breast reconstruction. 2009 , 124, 2197-2198	
1806	Re: Immediate reconstruction of a nonreplantable thumb amputation by great toe transfer. 2009 , 124, 2198-2199	2
1805	Human and mouse osteoprogenitor cells exhibit distinct patterns of osteogenesis in three-dimensional tissue engineering scaffolds. 2009 , 124, 1869-1879	9
1804	Re: Rehabilitation of irradiated head and neck tissues by autologous fat transplantation. 2009 , 124, 2190-2191	3
1803	Reply. 2009 , 124, 2193	
1802	Reply. 2009 , 124, 2191	

1801 Reply. **2009**, 124, 2197

1800 Reply. **2009**, 124, 2194-2195

1799 Re: Technique of internal mammary dissection using pectoralis major flap to prevent contour deformities. **2009**, 124, 2191-2192 1

1798 High-content profiling of cell responsiveness to graded substrates based on combinatorially variant polymers. **2009**, 12, 646-55 12

1797 Reply. **2009**, 124, 2192

1796 Adipose tissue regeneration. **2010**, 5, 116-21 24

1795 HA1077 enhances the cytokeratin expression of mesenchymal stem cells. **2010**, 31, 297-303

1794 Hyaluronan: is it a biomarker for adipose development within bovine muscle?. **2010**, 50, 88 1

1793 Mechanics in Cell Adhesion and Motility on the Elastic Substrates. **2010**, 5, 218-228 3

1792 Mixed Monolayer System of Mercaptobenzoic Acid and Polyethylene Glycol for pH Sensing: Surface-Enhanced Raman Scattering Studies. **2010**, 99-108

1791 MICROPATTERNED POLYMER STRUCTURES FOR CELL AND TISSUE ENGINEERING. **2010**, 101-120

1790 MT1-MMP controls human mesenchymal stem cell trafficking and differentiation. **2010**, 115, 221-9 80

1789 Biocompatibility of engineered soft tissue created by stem cells. **2010**, 19-50

1788 AFM studies of cellular mechanics during osteogenic differentiation of human amniotic fluid-derived stem cells. **2010**, 26, 1033-7 27

1787 Changes in topology and geometry of the embryonic epithelium of *Xenopus* during relaxation of mechanical tension. **2010**, 41, 156-163 4

1786 Differentiation-dependent association of phosphorylated extracellular signal-regulated kinase with the chromatin of osteoblast-related genes. **2010**, 25, 154-63 36

1785 Nanomaterials for in situ cell delivery and tissue regeneration. **2010**, 62, 731-40 88

1784 Dynamic control over cell adhesive properties using molecular-based surface engineering strategies. **2010**, 39, 354-78 191

1783	Polymer Scaffolds for Biomaterials Applications. 2010 , 43, 581-591	372
1782	Extracellular matrix produced by osteoblasts cultured under low-magnitude, high-frequency stimulation is favourable to osteogenic differentiation of mesenchymal stem cells. 2010 , 87, 351-64	41
1781	Fourth Meeting on Bone Quality, France, June 2009: mechanical constraints and bone quality--from organ to cell. 2010 , 21, 1067-75	3
1780	Intrinsic extracellular matrix properties regulate stem cell differentiation. 2010 , 43, 55-62	603
1779	Geometric microenvironment directs cell morphology on topographically patterned hydrogel substrates. 2010 , 6, 3514-23	39
1778	The effect of matrix stiffness on mesenchymal stem cell differentiation in a 3D thixotropic gel. 2010 , 31, 385-91	315
1777	The use of decellularized adipose tissue to provide an inductive microenvironment for the adipogenic differentiation of human adipose-derived stem cells. 2010 , 31, 4715-24	277
1776	The regulation of phenotype of cultured tenocytes by microgrooved surface structure. 2010 , 31, 6952-6958	83
1775	A synthetic elastomer based on acrylated polypropylene glycol triol with tunable modulus for tissue engineering applications. 2010 , 31, 7937-47	14
1774	Patterning network structure to spatially control cellular remodeling and stem cell fate within 3-dimensional hydrogels. 2010 , 31, 8228-34	231
1773	Surface strategies for control of neuronal cell adhesion: A review. 2010 , 65, 145-173	137
1772	Tissue stretch induces nuclear remodeling in connective tissue fibroblasts. 2010 , 133, 405-15	45
1771	Synthetic materials in the study of cell response to substrate rigidity. 2010 , 38, 2-20	234
1770	From cellular mechanotransduction to biologically inspired engineering: 2009 Pritzker Award Lecture, BMES Annual Meeting October 10, 2009. 2010 , 38, 1148-61	75
1769	Micro/nano-fabrication technologies for cell biology. 2010 , 48, 1023-32	42
1768	Cytoskeletal disassembly and cell rounding promotes adipogenesis from ES cells. 2010 , 6, 74-85	34
1767	Differentiation of mesodermal cells from pluripotent stem cells. 2010 , 91, 373-83	12
1766	The Role of Primary Cilia in Mesenchymal Stem Cell Differentiation: A Pivotal Switch in Guiding Lineage Commitment. 2010 , 3, 207-212	83

1765	TiO ₂ nanotube structures for enhanced cell and biological functionality. 2010 , 62, 50-55	14
1764	Mesenchymal stem cell mechanobiology. 2010 , 8, 98-104	66
1763	Adhesion, spreading and osteogenic differentiation of mesenchymal stem cells cultured on micropatterned amorphous diamond, titanium, tantalum and chromium coatings on silicon. 2010 , 21, 329-41	47
1762	Stem cell plasticity, osteogenic differentiation and the third dimension. 2010 , 21, 999-1004	13
1761	Lens epithelial cell response to atmospheric pressure plasma modified poly(methylmethacrylate) surfaces. 2010 , 21, 1703-12	15
1760	Biophysical mechanisms of single-cell interactions with microtopographical cues. 2010 , 12, 287-96	24
1759	Precise cell patterning using cytophobic self-assembled monolayer deposited on top of semi-transparent gold. 2010 , 12, 935-48	14
1758	Bone marrow-derived mesenchymal stem cells and the tumor microenvironment. 2010 , 29, 249-61	264
1757	RNA: state memory and mediator of cellular phenotype. 2010 , 20, 311-8	34
1756	Engineered materials and the cellular microenvironment: a strengthening interface between cell biology and bioengineering. 2010 , 20, 705-14	53
1755	Actin crosslinkers: repairing the sense of touch. 2010 , 20, R895-6	2
1754	Designing culture surfaces based on cell anchoring mechanisms to regulate cell morphologies and functions. 2010 , 28, 7-16	38
1753	The plasticity of cytoskeletal dynamics underlying neoplastic cell migration. 2010 , 22, 690-6	179
1752	Myogenic induction of human mesenchymal stem cells by culture on dendrimer-immobilized surface with d-glucose display. 2010 , 109, 55-61	8
1751	Morphological and proteomic analysis of early stage of osteoblast differentiation in osteoblastic progenitor cells. 2010 , 316, 2291-300	67
1750	Vascular endothelial growth factor and substrate mechanics regulate in vitro tubulogenesis of endothelial progenitor cells. 2010 , 14, 2436-47	103
1749	A comprehensive review of surface modification for neural cell adhesion and patterning. 2010 , 93, 1209-24	50
1748	Mono-dispersed bioactive glass nanospheres: preparation and effects on biomechanics of mammalian cells. 2010 , 95, 747-54	54

1747	Optimizing stem cell culture. 2010 , 111, 801-7	51
1746	Regulation of stemness and stem cell niche of mesenchymal stem cells: implications in tumorigenesis and metastasis. 2010 , 222, 268-77	207
1745	Neuro-mesodermal patterns in artificially deformed embryonic explants: a role for mechano-geometry in tissue differentiation. 2010 , 239, 885-96	24
1744	Polymeric nanopillar arrays for cell traction force measurements. 2010 , 31, 3152-8	25
1743	Controlling stem cell fate with material design. 2010 , 22, 175-89	201
1742	Biomimetic nanopatterns as enabling tools for analysis and control of live cells. 2010 , 22, 4551-66	135
1741	Reprogramming directional cell motility by tuning micropattern features and cellular signals. 2010 , 22, 4516-9	36
1740	Engineering the extracellular environment: Strategies for building 2D and 3D cellular structures. 2010 , 22, 5443-62	133
1739	Nanoscale biomolecular structures on self-assembled monolayers generated from modular pegylated disulfides. 2010 , 16, 12234-43	11
1738	The role of mechanical signals in regulating chondrogenesis and osteogenesis of mesenchymal stem cells. 2010 , 90, 75-85	168
1737	The mechanics of development: Models and methods for tissue morphogenesis. 2010 , 90, 193-202	42
1736	Cellular shellization: surface engineering gives cells an exterior. 2010 , 32, 698-708	28
1735	A low shear stress modular bioreactor for connected cell culture under high flow rates. 2010 , 106, 127-37	68
1734	Contractility modulates cell adhesion strengthening through focal adhesion kinase and assembly of vinculin-containing focal adhesions. 2010 , 223, 746-56	72
1733	Cell shape and TGF-beta signaling define the choice of lineage during in vitro differentiation of mouse primary hepatic precursors. 2010 , 225, 186-95	12
1732	Synergistic effect of polyelectrolyte multilayers and osteogenic growth medium on differentiation of human mesenchymal stem cells. 2010 , 10, 1043-54	30
1731	Polymer nanofibrous structures: Fabrication, biofunctionalization, and cell interactions. 2010 , 35, 868-892	365
1730	The epigenetic mechanism of mechanically induced osteogenic differentiation. 2010 , 43, 2881-6	110

1729	Phosphoproteomic characterization of PYK2 signaling pathways involved in osteogenesis. 2010 , 73, 1306-20	38
1728	Direct differentiation of human embryonic stem cells into selective neurons on nanoscale ridge/groove pattern arrays. 2010 , 31, 4360-6	284
1727	Exploiting the superior protein resistance of polymer brushes to control single cell adhesion and polarisation at the micron scale. 2010 , 31, 5030-41	85
1726	Cardiomyogenic induction of human mesenchymal stem cells by altered Rho family GTPase expression on dendrimer-immobilized surface with D-glucose display. 2010 , 31, 7666-77	28
1725	Biochemical and biomechanical gradients for directed bone marrow stromal cell differentiation toward tendon and bone. 2010 , 31, 7695-704	111
1724	Human mesenchymal stem cell differentiation on self-assembled monolayers presenting different surface chemistries. 2010 , 6, 12-20	158
1723	Fabrication of patterned cell co-cultures on albumin-based substrate: applications for microfluidic devices. 2010 , 6, 526-33	18
1722	A matrix micropatterning platform for cell localization and stem cell fate determination. 2010 , 6, 4614-21	43
1721	Integration of statistical modeling and high-content microscopy to systematically investigate cell-substrate interactions. 2010 , 31, 2489-97	51
1720	The regulation of stem cell differentiation by cell-cell contact on micropatterned material surfaces. 2010 , 31, 2470-6	261
1719	Cell-laden microengineered gelatin methacrylate hydrogels. 2010 , 31, 5536-44	1458
1718	The influence of an aligned nanofibrous topography on human mesenchymal stem cell fibrochondrogenesis. 2010 , 31, 6190-200	83
1717	The control of stem cell morphology and differentiation by hydrogel surface wrinkles. 2010 , 31, 6511-8	176
1716	Directed 3D cell alignment and elongation in microengineered hydrogels. 2010 , 31, 6941-6951	410
1715	A new approach to biofunctionalisation and micropatterning of multi-well plates. 2010 , 31, 8802-9	10
1714	The effect of nanofiber-guided cell alignment on the preferential differentiation of neural stem cells. 2010 , 31, 9031-9	204
1713	Graphene substrates promote adherence of human osteoblasts and mesenchymal stromal cells. 2010 , 48, 4323-4329	359
1712	The extracellular matrix microtopography drives critical changes in cellular motility and Rho A activity in colon cancer cells. 2010 , 10, 24	6

1711	Stem cell shape regulates a chondrogenic versus myogenic fate through Rac1 and N-cadherin. 2010 , 28, 564-72	300
1710	Engineering musculoskeletal tissues with human embryonic germ cell derivatives. 2010 , 28, 765-74	37
1709	Biophysics and dynamics of natural and engineered stem cell microenvironments. 2010 , 2, 49-64	46
1708	Three-dimensional culture with stiff microstructures increases proliferation and slows osteogenic differentiation of human mesenchymal stem cells. 2010 , 6, 355-60	25
1707	Sensitivity of stromal precursor cells of different commitment to simulated microgravity. 2010 , 432, 237-40	3
1706	Actin and serum response factor transduce physical cues from the microenvironment to regulate epidermal stem cell fate decisions. 2010 , 12, 711-8	351
1705	Material properties of the cell dictate stress-induced spreading and differentiation in embryonic stem cells. 2010 , 9, 82-8	441
1704	Cell rheology: Stressed-out stem cells. 2010 , 9, 4-6	22
1703	Material witness: Why is boron so hard?. 2010 , 9, 6	24
1702	Harnessing traction-mediated manipulation of the cell/matrix interface to control stem-cell fate. 2010 , 9, 518-26	1126
1701	Mechanical regulation of cell function with geometrically modulated elastomeric substrates. 2010 , 7, 733-6	804
1700	Measurement of mechanical tractions exerted by cells in three-dimensional matrices. 2010 , 7, 969-71	444
1699	Optimal matrix rigidity for stress fiber polarization in stem cells. 2010 , 6, 468-473	283
1698	Environment dictates behaviour. 2010 , 11, 679	2
1697	Bone and muscle loss after spinal cord injury: organ interactions. 2010 , 1211, 66-84	122
1696	Integrative physiology of the aging bone: insights from animal and cellular models. 2010 , 1211, 95-106	21
1695	Mechanobiology of bone cells. 2010 , 19, 245-249	
1694	A new perspective for stem-cell mechanobiology: biomechanical control of stem-cell behavior and fate. 2010 , 38, 393-433	20

1693	Hematopoietic stem cells: ex-vivo expansion and therapeutic potential for myocardial ischemia. 2010 , 3, 57-68	9
1692	High-throughput methods to define complex stem cell niches. 2010 , 48, ix-xxii	63
1691	Osteoblasts and bone marrow mesenchymal stromal cells control hematopoietic stem cell migration and proliferation in 3D in vitro model. 2010 , 5, e9093	76
1690	Rho kinases regulate the renewal and neural differentiation of embryonic stem cells in a cell plating density-dependent manner. 2010 , 5, e9187	26
1689	Microenvironment modulates osteogenic cell lineage commitment in differentiated embryonic stem cells. 2010 , 5, e9663	14
1688	Connective tissue growth factor in regulation of RhoA mediated cytoskeletal tension associated osteogenesis of mouse adipose-derived stromal cells. 2010 , 5, e11279	19
1687	Sarcomeric model of stretch-induced stress fiber reorganization. 2010 , 13	11
1686	Changes in fibroblast mechanostat set point and mechanosensitivity: an adaptive response to mechanical stress in floppy eyelid syndrome. 2010 , 51, 3853-63	31
1685	Enabling stem cell therapies through synthetic stem cell-niche engineering. 2010 , 120, 60-70	132
1684	Artificial cell microencapsulated stem cells in regenerative medicine, tissue engineering and cell therapy. 2010 , 670, 68-79	17
1683	The myofibroblast in connective tissue repair and regeneration. 2010 , 39-80	6
1682	Cell shape and contractility regulate ciliogenesis in cell cycle-arrested cells. 2010 , 191, 303-12	146
1681	Integrated biochemical and mechanical signals regulate multifaceted human embryonic stem cell functions. 2010 , 191, 631-44	112
1680	Micropatterning as a tool to decipher cell morphogenesis and functions. 2010 , 123, 4201-13	500
1679	Engineering extracellular matrix through nanotechnology. 2010 , 7 Suppl 6, S717-29	60
1678	Decoupling diffusional from dimensional control of signaling in 3D culture reveals a role for myosin in tubulogenesis. 2010 , 123, 2877-83	41
1677	A novel 3-dimensional cell culture system for embryoid bodies' formation. 2010 ,	
1676	Osteoinductive ceramics as a synthetic alternative to autologous bone grafting. 2010 , 107, 13614-9	519

1675	Cytoskeleton reorganization of spreading cells on micro-patterned islands: a functional model. 2010 , 368, 2629-52	24
1674	Mechanical control of tissue and organ development. 2010 , 137, 1407-20	604
1673	Precise patterning of photoactivatable glass coverslip for fluorescence observation of shape-controlled cells. 2010 , 22, 396-405	7
1672	Single-cell attachment and culture method using a photochemical reaction in a closed microfluidic system. 2010 , 4, 32208	32
1671	Integrins stimulate E-cadherin-mediated intercellular adhesion by regulating Src-kinase activation and actomyosin contractility. 2010 , 123, 712-22	118
1670	Cyclic tensile culture promotes fibroblastic differentiation of marrow stromal cells encapsulated in poly(ethylene glycol)-based hydrogels. 2010 , 16, 3457-66	66
1669	Directed stem cell differentiation: the role of physical forces. 2010 , 17, 48-54	62
1668	Rapid isolation of human stem cells (connective tissue progenitor cells) from the proximal humerus during arthroscopic rotator cuff surgery. 2010 , 38, 1438-47	121
1667	Therapeutic Applications of Cell Microencapsulation. 2010 ,	2
1666	Stereolithographic bone scaffold design parameters: osteogenic differentiation and signal expression. 2010 , 16, 523-39	182
1665	Chondrogenesis of adult stem cells from adipose tissue and bone marrow: induction by growth factors and cartilage-derived matrix. 2010 , 16, 523-33	196
1664	Integrins and extracellular matrix in mechanotransduction. 2010 , 2, a005066	413
1663	Isolation, characterization, differentiation, and application of adipose-derived stem cells. 2010 , 123, 55-105	46
1662	Cytohesin-2/ARNO, through its interaction with focal adhesion adaptor protein paxillin, regulates preadipocyte migration via the downstream activation of Arf6. 2010 , 285, 24270-81	50
1661	Dielectrophoresis: a review of applications for stem cell research. 2010 , 2010, 182581	93
1660	Modulation of Cell Structure and Function in Response to Substrate Stiffness and External Forces. 2010 , 24, 963-973	7
1659	Physicochemical control of adult stem cell differentiation: shedding light on potential molecular mechanisms. 2010 , 2010, 743476	34
1658	Parsing the early cytoskeletal and nuclear organizational cues that demarcate stem cell lineages. 2010 , 9, 2108-17	24

1657	Clinical, cellular and molecular phenotypes of aging bone. 2010 , 37, 175-92	5
1656	Photobleaching-activated micropatterning on self-assembled monolayers. 2010 , 22, 194103	4
1655	Embryonic progenitor cells in adipose tissue engineering. 2010 , 26, 405-12	4
1654	WNT5A induces osteogenic differentiation of human adipose stem cells via rho-associated kinase ROCK. 2010 , 12, 924-32	57
1653	The Integrated Role of Biomaterials and Stem Cells in Vascular Regeneration. 2010 , 195-223	3
1652	Integration of Biomaterials into 3D Stem Cell Microenvironments. 2010 , 45-59	1
1651	Synthetic Niches for Stem Cell Differentiation into T cells. 2010 , 225-245	1
1650	Micropatterned Hydrogels for Stem Cell Culture. 2010 , 119-152	3
1649	Stem Cell Interaction with Topography. 2010 , 61-87	1
1648	Functional Biomaterials for Controlling Stem Cell Differentiation. 2010 , 19-44	12
1647	The Nanofiber Matrix as an Artificial Stem Cell Niche. 2010 , 89-118	2
1646	Forces During Cell Adhesion and Spreading: Implications for Cellular Homeostasis. 2010 , 29-69	12
1645	Nanotechnology Usages for Cellular Adhesion and Traction Forces. 2010 , 177-200	1
1644	Synergistically enhanced osteogenic differentiation of human mesenchymal stem cells by culture on nanostructured surfaces with induction media. 2010 , 11, 1856-62	99
1643	Cell interaction with nanopatterned surface of implants. 2010 , 5, 937-47	73
1642	Nanotopographical control of stem cell differentiation. 2010 , 2010, 120623	247
1641	Cell shape, spreading symmetry and the polarization of stress-fibers in cells. 2010 , 22, 194110	64
1640	Cell-Based Nanocomposites and Biomolecules for Bone Tissue Engineering. 2010 , 551-588	

1639	A predictive model of cell traction forces based on cell geometry. 2010 , 99, L78-80	51
1638	Management of osteoporosis after spinal cord injury: what can be done? Point/counterpoint. 2010 , 2, 566-72	9
1637	Microfabricated Devices for Studying Cellular Biomechanics and Mechanobiology. 2010 , 145-175	2
1636	Nanotopography/mechanical induction of stem-cell differentiation. 2010 , 98, 241-94	58
1635	Plasma-micropatterning of albumin nanoparticles: Substrates for enhanced cell-interactive display of ligands. 2010 , 5, 105-13	3
1634	Influence of acellular natural lung matrix on murine embryonic stem cell differentiation and tissue formation. 2010 , 16, 2565-80	298
1633	Characterization of hydrogel microstructure using laser tweezers particle tracking and confocal reflection imaging. 2010 , 22, 194121	27
1632	Thrombospondin-2 is an endogenous adipocyte inhibitor. 2010 , 29, 549-56	25
1631	Pathway-based genome-wide association analysis identified the importance of EphrinA-EphR pathway for femoral neck bone geometry. 2010 , 46, 129-36	19
1630	A zyxin-mediated mechanism for actin stress fiber maintenance and repair. <i>Developmental Cell</i> , 2010 , 19, 365-76	10.2 153
1629	Bioactive nanofibers for fibroblastic differentiation of mesenchymal precursor cells for ligament/tendon tissue engineering applications. 2010 , 79, 102-10	99
1628	Mechanical behavior of human mesenchymal stem cells during adipogenic and osteogenic differentiation. 2010 , 393, 150-5	87
1627	Bone morphogenetic protein 6 drives both osteogenesis and chondrogenesis in murine adipose-derived mesenchymal cells depending on culture conditions. 2010 , 401, 20-5	29
1626	The extracellular matrix in development and morphogenesis: a dynamic view. 2010 , 341, 126-40	856
1625	Geometric control of human stem cell morphology and differentiation. 2010 , 2, 346-53	62
1624	Regulating microenvironmental stimuli for stem cells and cancer cells using microsystems. 2010 , 2, 229-40	55
1623	Cellular compatibility of RGD-modified chitosan nanofibers with aligned or random orientation. 2010 , 5, 054112	28
1622	Presentation counts: microenvironmental regulation of stem cells by biophysical and material cues. 2010 , 26, 533-56	131

1621	Geometric cues for directing the differentiation of mesenchymal stem cells. 2010 , 107, 4872-7	1366
1620	Dynamic three-dimensional culture methods enhance mesenchymal stem cell properties and increase therapeutic potential. 2010 , 16, 735-49	343
1619	Stem cells for tendon tissue engineering and regeneration. 2010 , 10, 689-700	53
1618	Theoretical concepts and models of cellular mechanosensing. 2010 , 98, 143-75	29
1617	Synthetic hydrogels for controlled stem cell differentiation. 2010 , 6, 67-81	108
1616	Pulsed direct current electric fields enhance osteogenesis in adipose-derived stromal cells. 2010 , 16, 917-31	58
1615	Advances in Porous Biomaterials for Dental and Orthopaedic Applications. 2010 , 3, 2947-2974	132
1614	Mechanosensitivity of the Heart. 2010 ,	3
1613	Cell and Organ Printing. 2010 ,	8
1612	Osteoimmunology. 2010 ,	1
1611	Biomaterials as Stem Cell Niche. 2010 ,	1
1610	Microfabricated arrays for high-throughput screening of cellular response to cyclic substrate deformation. 2010 , 10, 227-34	116
1609	Quantification of the adhesion strength of fibroblast cells on ethylene glycol terminated self-assembled monolayers by a microfluidic shear force assay. 2010 , 12, 4498-504	58
1608	Applications of Micro- and Nano-technology to Study Cell Adhesion to Material Surfaces. 2010 , 24, 2127-2140	5
1607	Advancing stem cell research with microtechnologies: opportunities and challenges. 2010 , 2, 305-25	33
1606	Endogenous patterns of mechanical stress are required for branching morphogenesis. 2010 , 2, 424-34	114
1605	Collagen type II enhances chondrogenesis in adipose tissue-derived stem cells by affecting cell shape. 2010 , 16, 81-90	81
1604	Cytoskeleton-based forecasting of stem cell lineage fates. 2010 , 107, 610-5	236

1603	Spatially controlled hydrogel mechanics to modulate stem cell interactions. 2010 , 6, 136-143	231
1602	Patterning the differentiation of C2C12 skeletal myoblasts. 2011 , 3, 897-909	125
1601	Measurement and analysis of traction force dynamics in response to vasoactive agonists. 2011 , 3, 663-74	31
1600	In vitro assessment of the differentiation potential of bone marrow-derived mesenchymal stem cells on genipin-chitosan conjugation scaffold with surface hydroxyapatite nanostructure for bone tissue engineering. 2011 , 17, 1341-9	63
1599	Dynamic tensile loading improves the functional properties of mesenchymal stem cell-laden nanofiber-based fibrocartilage. 2011 , 17, 1445-55	87
1598	Subcellular spatial segregation of integrin subtypes by patterned multicomponent surfaces. 2011 , 3, 560-7	50
1597	Microtopographical assembly of cardiomyocytes. 2011 , 3, 1011-9	10
1596	Engineering of a microfluidic cell culture platform embedded with nanoscale features. 2011 , 11, 1638-46	49
1595	Protein Expression of STRO-1 Cells in Response to Different Topographic Features. 2011 , 2011, 534603	3
1594	Engineering a stem cell house into a home. 2011 , 2, 3	35
1593	(Micro)managing the mechanical microenvironment. 2011 , 3, 959-71	62
1592	Attachment and morphology of adipose-derived stromal cells and exposure of cell-binding domains of adsorbed proteins on various self-assembled monolayers. 2011 , 7, 3808	9
1591	Single cell 3-D platform to study ligand mobility in cell-cell contact. 2011 , 11, 2876-83	43
1590	How to embed three-dimensional flexible electrodes in microfluidic devices for cell culture applications. 2011 , 11, 1593-5	43
1589	Plasmonics: Hydrogen caught red-faced. 2011 , 10, 560-1	1
1588	Mechanosensing Biology. 2011 ,	2
1587	Construction of a fluorescent nanostructured chitosan-hydroxyapatite scaffold by nanocrystallon induced biomimetic mineralization and its cell biocompatibility. 2011 , 3, 1692-701	40
1586	Design, fabrication and characterization of PCL electrospun scaffolds—review. 2011 , 21, 9419	424

1585	Biomaterials to enhance stem cell function in the heart. 2011 , 109, 910-22	148
1584	Control of surface chemistry, substrate stiffness, and cell function in a novel terpolymer methacrylate library. 2011 , 27, 1891-9	44
1583	Strontium- and zinc-alginate hydrogels for bone tissue engineering. 2011 , 17, 2713-22	60
1582	Bridging the gap between physicochemistry and interpretation prevalent in cell-surface interactions. 2011 , 111, 2900-36	67
1581	Integrins and cadherins join forces to form adhesive networks. 2011 , 124, 1183-93	239
1580	Nanoscale surface modifications of medically relevant metals: state-of-the art and perspectives. 2011 , 3, 335-53	193
1579	Cell shape and substrate rigidity both regulate cell stiffness. 2011 , 100, L25-7	298
1578	Shear stress regulates adhesion and rolling of CD44+ leukemic and hematopoietic progenitor cells on hyaluronan. 2011 , 101, 585-93	42
1577	Using Lab-on-a-Chip Technologies for Stem Cell Biology. 2011 , 483-498	2
1576	Effect of uniaxial stretch on morphology and cytoskeleton of human mesenchymal stem cells: static vs. dynamic loading. 2011 , 56, 259-65	24
1575	Organ Printing. 2011 , 587-606	5
1574	Controlling the growth and differentiation of human mesenchymal stem cells by the arrangement of individual carbon nanotubes. 2011 , 5, 7383-90	132
1573	Targeting osteoclast-osteoblast communication. 2011 , 17, 1344-6	78
1572	Surfaces and Cell Behavior. 2011 , 115-126	
1571	Efficient creation of cellular micropatterns with long-term stability and their geometric effects on cell behavior. 2011 , 6, 143-52	4
1570	Progenitor Cell Therapy for Neurological Injury. 2011 ,	
1569	Tissue Engineering in Regenerative Medicine. 2011 ,	5
1568	Highly Aligned Polymer Nanofiber Structures: Fabrication and Applications in Tissue Engineering. 2011 , 171-212	26

1567	Mechanobiology of Cell-Cell and Cell-Matrix Interactions. 2011 ,	15
1566	Stem Cells & Regenerative Medicine. 2011 ,	5
1565	Role of mechanical factors in fate decisions of stem cells. 2011 , 6, 229-40	137
1564	Biophysical Regulation of Vascular Differentiation and Assembly. 2011 ,	
1563	Advances in Cell Mechanics. 2011 ,	3
1562	Osteoblast Biology and Mechanosensing. 2011 , 105-126	2
1561	Chemically well-defined self-assembled monolayers for cell culture: toward mimicking the natural ECM. 2011 , 7, 9561-9571	62
1560	A systems biology approach to cancer: fractals, attractors, and nonlinear dynamics. 2011 , 15, 93-104	43
1559	Self-Assembled Multifunctional Polymers for Biointerfaces. 2011 , 855-905	4
1558	Stereomask lithography (SML): a universal multi-object micro-patterning technique for biological applications. 2011 , 11, 224-30	23
1557	Cellular and Biomolecular Mechanics and Mechanobiology. 2011 ,	5
1556	Design of Biointerfaces for Regenerative Medicine. 2011 , 167-200	4
1555	Materials as Artificial Stem Cell Microenvironments. 2011 , 155-167	
1554	Progress and prospects for stem cell engineering. 2011 , 2, 479-502	29
1553	Biological Microelectromechanical Systems (BioMEMS) Devices. 2011 , 257-276	3
1552	Substrate induced differentiation of human mesenchymal stem cells on hydrogels with modified surface chemistry and controlled modulus. 2011 , 7, 6501	67
1551	The Cdc42 guanine nucleotide exchange factor FGD1 regulates osteogenesis in human mesenchymal stem cells. 2011 , 178, 969-74	15
1550	A hitchhiker's guide to mechanobiology. <i>Developmental Cell</i> , 2011 , 21, 35-47	10.2 343

1549	Mechanochemical control of mesenchymal condensation and embryonic tooth organ formation. <i>Developmental Cell</i> , 2011 , 21, 758-69	10.2	137
1548	Prospective identification and isolation of murine bone marrow derived multipotent mesenchymal progenitor cells. 2011 , 24, 13-24		16
1547	Physical properties of mesenchymal stem cells are coordinated by the perinuclear actin cap. 2011 , 409, 1-6		20
1546	Force via integrins but not E-cadherin decreases Oct3/4 expression in embryonic stem cells. 2011 , 415, 396-400		29
1545	Towards a quantitative understanding of stem cell-niche interaction: experiments, models, and technologies. 2011 , 46, 308-17		31
1544	Artificial scaffolds and mesenchymal stem cells for hard tissues. 2012 , 126, 153-94		9
1543	Altered osteogenic commitment of human mesenchymal stem cells by ERM protein-dependent modulation of cellular biomechanics. 2011 , 44, 2692-8		24
1542	The simulated microgravity enhances the differentiation of mesenchymal stem cells into neurons. 2011 , 505, 171-5		42
1541	Fibroblasts and myofibroblasts in wound healing: force generation and measurement. 2011 , 20, 108-20		269
1540	Spatially organized in vitro models instruct asymmetric stem cell differentiation. 2011 , 3, 1179-87		9
1539	Modulation of N-cadherin junctions and their role as epicenters of differentiation-specific actin regulation in the developing lens. 2011 , 349, 363-77		31
1538	Mechanical phenotype is important for stromal aromatase expression. 2011 , 76, 797-801		9
1537	Construction of tissue engineered nerve grafts and their application in peripheral nerve regeneration. 2011 , 93, 204-30		421
1536	Silk peptides inhibit adipocyte differentiation through modulation of the Notch pathway in C3H10T1/2 cells. 2011 , 31, 723-30		17
1535	Adipogenic differentiation of individual mesenchymal stem cell on different geometric micropatterns. 2011 , 27, 6155-62		92
1534	Stem cell differentiation depending on different surfaces. 2012 , 126, 263-83		15
1533	Role of YAP/TAZ in mechanotransduction. 2011 , 474, 179-83		3115
1532	Gradient patterning and differentiation of mesenchymal stem cells on micropatterned polymer surface. 2011 , 26, 242-256		31

1531	mTOR and the differentiation of mesenchymal stem cells. 2011 , 43, 501-10	66
1530	Precisely delivered nanomechanical forces induce blebbing in undifferentiated mouse embryonic stem cells. 2011 , 23	4
1529	. 2011 ,	22
1528	Cell-Biomaterial Interaction: Strategies To Mimic The Extracellular Matrix. 2011 ,	4
1527	Bone and Cartilage from Stem Cells: Growth Optimalization and Stabilization of Cell Phenotypes. 2011 ,	
1526	Biomaterials and Biotechnology Schemes Utilizing TiO2 Nanotube Arrays. 2011 ,	4
1525	Mechanobiology of Bone. 2011 , 217-236	1
1524	Micro- and nanoengineering approaches to control stem cell-biomaterial interactions. 2011 , 2, 88-106	39
1523	A positive role of cadherin in Wnt/ β -catenin signalling during epithelial-mesenchymal transition. 2011 , 6, e23899	133
1522	Differential proteome analysis of bone marrow mesenchymal stem cells from adolescent idiopathic scoliosis patients. 2011 , 6, e18834	16
1521	β -Adrenergic inhibition of contractility in L6 skeletal muscle cells. 2011 , 6, e22304	5
1520	Age-dependent decline in mouse lung regeneration with loss of lung fibroblast clonogenicity and increased myofibroblastic differentiation. 2011 , 6, e23232	48
1519	Nano-stenciled RGD-gold patterns that inhibit focal contact maturation induce lamellipodia formation in fibroblasts. 2011 , 6, e25459	26
1518	Substrate adhesion regulates sealing zone architecture and dynamics in cultured osteoclasts. 2011 , 6, e28583	39
1517	Micro and nanotechnologies for bioengineering regenerative medicine scaffolds. 2011 , 5, 266	5
1516	In vitro mineralization of human mesenchymal stem cells on three-dimensional type I collagen versus PLGA scaffolds: a comparative analysis. 2011 , 127, 2301-2311	22
1515	Applications of Micro- and Nano-technology to Study Cell Adhesion to Material Surfaces. 2011 , 141-154	
1514	Is the Mechanics of Cell-Matrix Adhesion Amenable to Physical Modeling?. 2011 , 31-42	

1513	Grooved surface topography alters matrix-metalloproteinase production by human fibroblasts. 2011 , 6, 035005	11
1512	Mesenchymal Stem Cells for Tissue Regeneration. 2011 , 49-70	
1511	Representing Cancer Cell Trajectories in a Phase-Space Diagram: Switching Cellular States by Biological Phase Transitions. 2011 , 377-403	3
1510	Mechanical Determinants of Tissue Development. 2011 , 463-477	
1509	Integrated morphodynamic signalling of the mammary gland. 2011 , 12, 581-93	147
1508	Forming functional fat: a growing understanding of adipocyte differentiation. 2011 , 12, 722-34	891
1507	Density of human bone marrow stromal cells regulates commitment to vascular lineages. 2011 , 6, 238-50	20
1506	More than a feeling: discovering, understanding, and influencing mechanosensing pathways. 2011 , 22, 648-54	103
1505	Hydrogel-based biomimetic environment for in vitro modulation of branching morphogenesis. 2011 , 32, 6754-63	47
1504	The promotion of stemness and pluripotency following feeder-free culture of embryonic stem cells on collagen-grafted 3-dimensional nanofibrous scaffold. 2011 , 32, 7363-74	63
1503	Skeletal stem cell physiology on functionally distinct titania nanotopographies. 2011 , 32, 7403-10	101
1502	Effect of cell anisotropy on differentiation of stem cells on micropatterned surfaces through the controlled single cell adhesion. 2011 , 32, 8048-57	234
1501	The effects of the physical properties of culture substrates on the growth and differentiation of human embryonic stem cells. 2011 , 32, 8816-29	24
1500	The determination of stem cell fate by 3D scaffold structures through the control of cell shape. 2011 , 32, 9188-96	230
1499	MicroRNAs in the regulation of interfacial behaviors of MSCs cultured on microgrooved surface pattern. 2011 , 32, 9207-17	50
1498	Synergistic regulation of cell function by matrix rigidity and adhesive pattern. 2011 , 32, 9584-93	63
1497	Dynamics and regulation of contractile actin-myosin networks in morphogenesis. 2011 , 23, 30-8	94
1496	Graphene for controlled and accelerated osteogenic differentiation of human mesenchymal stem cells. 2011 , 5, 4670-8	724

1495	Monitoring human mesenchymal stromal cell differentiation by electrochemical impedance sensing. 2011 , 13, 1074-89	32
1494	Pericyte-derived sphingosine 1-phosphate induces the expression of adhesion proteins and modulates the retinal endothelial cell barrier. 2011 , 31, e107-15	38
1493	Fibronectins, their fibrillogenesis, and in vivo functions. 2011 , 3,	256
1492	Nanoscale surfaces for the long-term maintenance of mesenchymal stem cell phenotype and multipotency. 2011 , 10, 637-44	644
1491	Artificial niche microarrays for probing single stem cell fate in high throughput. 2011 , 8, 949-55	343
1490	The effects of intermittent dynamic loading on chondrogenic and osteogenic differentiation of human marrow stromal cells encapsulated in RGD-modified poly(ethylene glycol) hydrogels. 2011 , 7, 3829-40	55
1489	Synthetic osteogenic growth peptide promotes differentiation of human bone marrow mesenchymal stem cells to osteoblasts via RhoA/ROCK pathway. 2011 , 358, 221-7	43
1488	Intercellular and extracellular mechanotransduction in cardiac myocytes. 2011 , 462, 75-87	50
1487	Regulation of osteogenic and chondrogenic differentiation of mesenchymal stem cells in PEG-ECM hydrogels. 2011 , 344, 499-509	98
1486	Mechanical stimuli differentially control stem cell behavior: morphology, proliferation, and differentiation. 2011 , 10, 939-53	160
1485	Net change in periosteal strain during stance shift loading after surgery correlates to rapid de novo bone generation in critically sized defects. 2011 , 39, 1570-81	29
1484	Regulation of the matrix microenvironment for stem cell engineering and regenerative medicine. 2011 , 39, 1201-14	45
1483	How matrix properties control the self-assembly and maintenance of tissues. 2011 , 39, 1849-56	35
1482	Fiber stretch and reorientation modulates mesenchymal stem cell morphology and fibrous gene expression on oriented nanofibrous microenvironments. 2011 , 39, 2780-90	40
1481	Death and inflammation following somatic cell transplantation. 2011 , 33, 535-50	41
1480	cAMP initiates early phase neuron-like morphology changes and late phase neural differentiation in mesenchymal stem cells. 2011 , 68, 863-76	32
1479	The regulation of traction force in relation to cell shape and focal adhesions. 2011 , 32, 2043-51	220
1478	Modulus-driven differentiation of marrow stromal cells in 3D scaffolds that is independent of myosin-based cytoskeletal tension. 2011 , 32, 2256-64	100

1477	Controlling the adhesion and differentiation of mesenchymal stem cells using hyaluronic acid-based, doubly crosslinked networks. 2011 , 32, 2466-78	88
1476	Engineering the cell-material interface for controlling stem cell adhesion, migration, and differentiation. 2011 , 32, 3700-11	251
1475	The effect of matrix stiffness on the differentiation of mesenchymal stem cells in response to TGF- β 2011 , 32, 3921-30	536
1474	Cell shape and spreading of stromal (mesenchymal) stem cells cultured on fibronectin coated gold and hydroxyapatite surfaces. 2011 , 84, 18-25	40
1473	The biomechanical properties of 3d extracellular matrices and embedded cells regulate the invasiveness of cancer cells. 2011 , 61, 217-36	25
1472	Advances in Experiments and Modeling in Micro- and Nano-Biomechanics: A Mini Review. 2011 , 4, 327-339	13
1471	Cellular anchorage sensing and anoikis. 2011 , 8, 16-20	
1470	Different populations and sources of human mesenchymal stem cells (MSC): A comparison of adult and neonatal tissue-derived MSC. 2011 , 9, 12	1015
1469	Techniques for analysing pattern formation in populations of stem cells and their progeny. 2011 , 12, 396	6
1468	Microfluidic devices for bioapplications. 2011 , 7, 12-48	362
1467	Carbon nanotube monolayer cues for osteogenesis of mesenchymal stem cells. 2011 , 7, 741-5	52
1466	Bio-inspired micropatterned platform to steer stem cell differentiation. 2011 , 7, 1416-21	51
1465	Micro-/nano-engineered cellular responses for soft tissue engineering and biomedical applications. 2011 , 7, 1361-78	107
1464	Mechanically induced focal adhesion assembly amplifies anti-adipogenic pathways in mesenchymal stem cells. 2011 , 29, 1829-36	63
1463	Rho GTPases mediate the mechanosensitive lineage commitment of neural stem cells. 2011 , 29, 1886-97	150
1462	Tenogenic differentiation of stem cells for tendon repair-what is the current evidence?. 2011 , 5, e144-63	65
1461	Reconstructing the differentiation niche of embryonic stem cells using biomaterials. 2011 , 11, 36-49	58
1460	Extracellular matrix functionalized microcavities to control hematopoietic stem and progenitor cell fate. 2011 , 11, 739-47	38

1459	A topographically optimized substrate with well-ordered lattice micropatterns for enhancing the osteogenic differentiation of murine mesenchymal stem cells. 2011 , 11, 938-45	14
1458	Effect of replicated polymeric substrate with lotus surface structure on adipose-derived stem cell behaviors. 2011 , 11, 1357-63	30
1457	(1) adrenergic receptor agonist, phenylephrine, actively contracts early rat rib fracture callus ex vivo. 2011 , 29, 740-5	9
1456	Exercise and Duchenne muscular dystrophy: toward evidence-based exercise prescription. 2011 , 43, 464-78	50
1455	Continuous cyclic mechanical tension inhibited Runx2 expression in mesenchymal stem cells through RhoA-ERK1/2 pathway. 2011 , 226, 2159-69	50
1454	Role of epimorphin in bile duct formation of rat liver epithelial stem-like cells: involvement of small G protein RhoA and C/EBP β . 2011 , 226, 2807-16	15
1453	Fabrication of Multifaceted Micropatterned Surfaces with Laser Scanning Lithography. 2011 , 21, 2876-2888	33
1452	Dynamic topographical control of mesenchymal stem cells by culture on responsive poly(ϵ -caprolactone) surfaces. 2011 , 23, 3278-83	122
1451	Surface chemical patterning for long-term single-cell culture. 2011 , 96, 507-12	12
1450	Scaffold-based approach to direct stem cell neural and cardiovascular differentiation: an analysis of physical and biochemical effects. 2011 , 97, 355-74	27
1449	Stiffness of photocrosslinked RGD-alginate gels regulates adipose progenitor cell behavior. 2011 , 108, 1683-92	83
1448	Nanoscale topography reduces fibroblast growth, focal adhesion size and migration-related gene expression on platinum surfaces. 2011 , 85, 189-97	55
1447	Mechano-topographic modulation of stem cell nuclear shape on nanofibrous scaffolds. 2011 , 7, 57-66	76
1446	Differentiation of monocytes on a degradable, polar, hydrophobic, ionic polyurethane: Two-dimensional films vs. three-dimensional scaffolds. 2011 , 7, 115-22	20
1445	Assessment of using laponite cross-linked poly(ethylene oxide) for controlled cell adhesion and mineralization. 2011 , 7, 568-77	124
1444	Hydrophobic nanopillars initiate mesenchymal stem cell aggregation and osteo-differentiation. 2011 , 7, 683-90	100
1443	Cell patterning using molecular vapor deposition of self-assembled monolayers and lift-off technique. 2011 , 7, 1094-103	23
1442	Self-assembled composite matrix in a hierarchical 3-D scaffold for bone tissue engineering. 2011 , 7, 2244-55	73

1441	Biomimetic microtopography to enhance osteogenesis in vitro. 2011 , 7, 2919-25	78
1440	Initial attachment and spreading of MG63 cells on nanopatterned titanium surfaces via through-mask anodization. 2011 , 257, 4552-4558	29
1439	Hierarchical scaffold design for mesenchymal stem cell-based gene therapy of hemophilia B. 2011 , 32, 295-305	33
1438	The performance of human mesenchymal stem cells encapsulated in cell-degradable polymer-peptide hydrogels. 2011 , 32, 3564-74	290
1437	Critical areas of cell adhesion on micropatterned surfaces. 2011 , 32, 3931-8	90
1436	Suppression of Runx2 protein degradation by fibrous engineered matrix. 2011 , 32, 5826-36	7
1435	The influence of substrate creep on mesenchymal stem cell behaviour and phenotype. 2011 , 32, 5979-93	271
1434	MicroRNA regulation associated chondrogenesis of mouse MSCs grown on polyhydroxyalkanoates. 2011 , 32, 6435-44	57
1433	Design of artificial extracellular matrices for tissue engineering. 2011 , 36, 238-268	214
1432	Effect of nanogroove geometry on adipogenic differentiation. 2011 , 22, 494017	18
1431	Applications and challenges of plasma processes in nanobiotechnology. 2011 , 44, 174017	6
1430	Adipogenic histone mark regulation by matrix metalloproteinase 14 in collagen-rich microenvironments. 2011 , 25, 745-53	17
1429	Spherical Harmonics based extraction and annotation of cell shape in 3D time-lapse microscopy sequences. 2011 , 2011, 6619-22	6
1428	Molecular design of bioactive materials with controlled bioactivity. 2011 , 17-49	
1427	Microtubule depolymerization induces traction force increase through two distinct pathways. 2011 , 124, 4233-40	53
1426	Involvement of cytoskeleton-associated proteins in the commitment of C3H10T1/2 pluripotent stem cells to adipocyte lineage induced by BMP2/4. 2011 , 10, M110.002691	34
1425	Biomaterial surface topography to control cellular response: technologies, cell behaviour and biomedical applications. 2011 , 169-201	5
1424	The E3 ubiquitin ligase specificity subunit ASB2 targets filamins for proteasomal degradation by interacting with the filamin actin-binding domain. 2011 , 124, 2631-41	21

1423	Semi-confined compression of microfabricated polymerized biomaterial constructs. 2011 , 21, 054014	12
1422	Mechanical signaling through the cytoskeleton regulates cell proliferation by coordinated focal adhesion and Rho GTPase signaling. 2011 , 124, 1195-205	354
1421	Osteoblast mineralization requires beta1 integrin/ICAP-1-dependent fibronectin deposition. 2011 , 194, 307-22	89
1420	Mammary gland ECM remodeling, stiffness, and mechanosignaling in normal development and tumor progression. 2011 , 3, a003228	300
1419	The spatiotemporal development of adipose tissue. 2011 , 138, 5027-37	121
1418	Effect of age and diabetes on the response of mesenchymal progenitor cells to fibrin matrices. 2011 , 2011, 378034	16
1417	Fabrication of nanostructured polymeric films and their geometric effects on cell growth. 2011 ,	1
1416	Emerging roles for the transforming growth factor- β superfamily in regulating adiposity and energy expenditure. 2011 , 32, 387-403	144
1415	Repressor transcription factor 7-like 1 promotes adipogenic competency in precursor cells. 2011 , 108, 16271-6	33
1414	Biomimetic three-dimensional microenvironment for controlling stem cell fate. 2011 , 1, 792-803	52
1413	Erythropoiesis lagging? plgA1 steps in to assist Epo. 2011 , 17, 1346-8	2
1412	Stem cell differentiation: Multipotency retained. 2011 , 10, 559-60	3
1411	An algorithm-based topographical biomaterials library to instruct cell fate. 2011 , 108, 16565-70	310
1410	Embryonic Stem Cells Maintain an Undifferentiated State on Dendrimer-Immobilized Surface with d-Glucose Display. 2011 , 3, 2078-2087	1
1409	Cardiac myocyte remodeling mediated by N-cadherin-dependent mechanosensing. 2011 , 300, H1252-66	91
1408	Effect of focal adhesion kinase on the regulation of realignment and tenogenic differentiation of human mesenchymal stem cells by mechanical stretch. 2011 , 52, 373-9	29
1407	Microenvironment design for stem cell fate determination. 2012 , 126, 227-62	5
1406	Dependence of Spreading and Differentiation of Mesenchymal Stem Cells on Micropatterned Surface Area. 2011 , 2011, 1-9	39

1405	Role of the Rho pathway in regulating valvular interstitial cell phenotype and nodule formation. 2011 , 300, H448-58	45
1404	Peri-adipocyte ECM remodeling in obesity and adipose tissue fibrosis. 2012 , 1, 89-95	62
1403	A VASP-Rac-soluble guanylyl cyclase pathway controls cGMP production in adipocytes. 2012 , 5, ra62	28
1402	Overview of micro- and nano-technology tools for stem cell applications: micropatterned and microelectronic devices. 2012 , 12, 15947-82	19
1401	Transient expression of myofibroblast-like cells in rat rib fracture callus. 2012 , 83, 93-8	5
1400	Stem Cells and Extracellular Matrices. 2012 , 1, 1-84	1
1399	Determinants of cell-material crosstalk at the interface: towards engineering of cell instructive materials. 2012 , 9, 2017-32	124
1398	Metabolomics: a valuable tool for stem cell monitoring in regenerative medicine. 2012 , 9, 1713-24	25
1397	Lateral spacing of adhesion peptides influences human mesenchymal stem cell behaviour. 2012 , 125, 317-27	128
1396	Matrix stiffness reverses the effect of actomyosin tension on cell proliferation. 2012 , 125, 5974-83	139
1395	Matrix rigidity controls endothelial differentiation and morphogenesis of cardiac precursors. 2012 , 5, ra41	51
1394	Concise review: stem cell therapy for muscular dystrophies. 2012 , 1, 833-42	24
1393	Hematopoietic stem cells: transcriptional regulation, ex vivo expansion and clinical application. 2012 , 12, 34-49	49
1392	Characterization of cell shape and deformation in 3D using Spherical Harmonics. 2012 ,	19
1391	Diverse effects of cyclic AMP variants on osteogenic and adipogenic differentiation of human mesenchymal stromal cells. 2012 , 18, 1431-42	12
1390	The transcription factor DLX3 regulates the osteogenic differentiation of human dental follicle precursor cells. 2012 , 21, 1936-47	45
1389	Chapter 9.2:Drug Delivery Strategies for Bone Regeneration. 2012 , 526-547	
1388	Substrate stiffness modulates gene expression and phenotype in neonatal cardiomyocytes in vitro. 2012 , 18, 1837-48	78

1387	Cell fluidics: producing cellular streams on micropatterned synthetic surfaces. 2012 , 28, 714-21	15
1386	Nanotechnology and tissue-engineered organ regeneration. 2012 , 403-427	
1385	Scanning probe-enabled nanocombinatorics define the relationship between fibronectin feature size and stem cell fate. 2012 , 109, 4377-82	82
1384	Neural progenitor cells regulate capillary blood flow in the postnatal subventricular zone. 2012 , 32, 16435-48	55
1383	The attachment of intrinsic and extrinsic, mobilized and immobilized adhesion cells to collagen and fibronectin. 2012 , 37, 564-72	2
1382	Altered nanofeature size dictates stem cell differentiation. 2012 , 125, 1217-24	65
1381	Reprogramming cell shape with laser nano-patterning. 2012 , 125, 2134-40	60
1380	Directed Fusion of Mesenchymal Stem Cells with Cardiomyocytes via VSV-G Facilitates Stem Cell Programming. 2012 , 2012, 414038	19
1379	Treatment with Y-27632, a ROCK Inhibitor, Increases the Proinvasive Nature of SW620 Cells on 3D Collagen Type 1 Matrix. 2012 , 2012, 259142	19
1378	Tissue deformation spatially modulates VEGF signaling and angiogenesis. 2012 , 109, 6886-91	107
1377	Direct conversion of porcine embryonic fibroblasts into adipocytes by chemical molecules. 2012 , 14, 99-105	9
1376	Adhesive and mechanical regulation of mesenchymal stem cell differentiation in human bone marrow and periosteum-derived progenitor cells. 2012 , 1, 1058-68	47
1375	A Correction to the Research Article Titled: "Matrix Rigidity Controls Endothelial Differentiation and Morphogenesis of Cardiac Precursors" by Kshitiz, M. E. Hubbi, E. H. Ahn, J. Downey, J. Afzal, D.-H. Kim, S. Rey, C. Chang, A. Kundu, G. L. Semenza, R. M. Abraham, A. Levchenko. 2012 , 5, er6-er6	
1374	Environmental biomechanics substantiated by defined pillar micropatterns govern behavior of human mesenchymal stem cells. 2012 , 21, 2455-69	6
1373	Actin cap associated focal adhesions and their distinct role in cellular mechanosensing. 2012 , 2, 555	132
1372	RhoA/Rho kinase signaling regulates transforming growth factor- β -induced chondrogenesis and actin organization of synovium-derived mesenchymal stem cells through interaction with the Smad pathway. 2012 , 30, 1119-25	37
1371	ROCK suppression promotes differentiation and expansion of endothelial cells from embryonic stem cell-derived Flk1(+) mesodermal precursor cells. 2012 , 120, 2733-44	32
1370	Bone morphogenetic protein-2-induced signaling and osteogenesis is regulated by cell shape, RhoA/ROCK, and cytoskeletal tension. 2012 , 21, 1176-86	177

1369	Force-dependent cell signaling in stem cell differentiation. 2012 , 3, 41	107
1368	Designing regenerative biomaterial therapies for the clinic. 2012 , 4, 160sr4	180
1367	Cellular plasticity: the good, the bad, and the ugly? Microenvironmental influences on progenitor cell therapy. 2012 , 90, 275-85	6
1366	Characterization and significance of adhesion and junction-related proteins in mouse ovarian follicles. 2012 , 86, 153, 1-14	66
1365	Control of stem cell fate and function by engineering physical microenvironments. 2012 , 4, 1008-18	193
1364	Controlling self-renewal and differentiation of stem cells via mechanical cues. 2012 , 2012, 797410	132
1363	Cell instructive microporous scaffolds through interface engineering. 2012 , 134, 20103-9	58
1362	Controlling mesenchymal stem cell gene expression using polymer-mediated delivery of siRNA. 2012 , 13, 3841-9	33
1361	Peptide-based delivery to bone. 2012 , 64, 1220-38	41
1360	Mechanical regulation of cellular phenotype: implications for vascular tissue regeneration. 2012 , 95, 215-22	22
1359	Porous membrane substrates offer better niches to enhance the Wnt signaling and promote human embryonic stem cell growth and differentiation. 2012 , 18, 1419-30	20
1358	Functional biomaterials for cartilage regeneration. 2012 , 100, 2526-36	48
1357	Matrix compliance and RhoA direct the differentiation of mammary progenitor cells. 2012 , 11, 1241-9	29
1356	Transduction of mechanical and cytoskeletal cues by YAP and TAZ. 2012 , 13, 591-600	647
1355	Progenitor Cells. 2012 ,	2
1354	High-content imaging-based screening of microenvironment-induced changes to stem cells. 2012 , 17, 1151-62	16
1353	A chemically-defined screening platform reveals behavioral similarities between primary human mesenchymal stem cells and endothelial cells. 2012 , 4, 1508-21	15
1352	Wave of migration. 2012 , 8, 583-584	4

1351	Responsive culture platform to examine the influence of microenvironmental geometry on cell function in 3D. 2012 , 4, 1540-9	42
1350	Exploring adipogenic differentiation of a single stem cell on poly(acrylic acid) and polystyrene micropatterns. 2012 , 8, 8429	19
1349	Screening the attachment and spreading of bone marrow-derived and adipose-derived mesenchymal stem cells on porous silicon gradients. 2012 , 2, 12857	29
1348	Surface mobility regulates skeletal stem cell differentiation. 2012 , 4, 531-9	32
1347	Soft microenvironments promote the early neurogenic differentiation but not self-renewal of human pluripotent stem cells. 2012 , 4, 1049-58	111
1346	Combinatorial screening of chemically defined human mesenchymal stem cell culture substrates. 2012 , 22, 19474-19481	21
1345	Control of Cellular Organization Around Collagen Beads using Dielectrophoresis. 2012 , 18, 177-186	3
1344	Micropatterning of bioactive glass nanoparticles on chitosan membranes for spatial controlled biomineralization. 2012 , 28, 6970-7	39
1343	Matrix nanotopography as a regulator of cell function. 2012 , 197, 351-60	463
1342	Mechanical control of stem cell differentiation. 2012 , 7, 101-16	56
1341	Deconstructing the third dimension: how 3D culture microenvironments alter cellular cues. 2012 , 125, 3015-24	1055
1340	Modulation of mesenchymal stem cell shape in enzyme-sensitive hydrogels is decoupled from upregulation of fibroblast markers under cyclic tension. 2012 , 18, 2365-75	19
1339	The extracellular matrix: a dynamic niche in cancer progression. 2012 , 196, 395-406	1999
1338	Live-cell subcellular measurement of cell stiffness using a microengineered stretchable micropost array membrane. 2012 , 4, 1289-98	46
1337	Combination of integrin-binding peptide and growth factor promotes cell adhesion on electron-beam-fabricated patterns. 2012 , 134, 247-55	74
1336	Nanotopography influences adhesion, spreading, and self-renewal of human embryonic stem cells. 2012 , 6, 4094-103	287
1335	Phosphoproteomic analysis of human mesenchymal stromal cells during osteogenic differentiation. 2012 , 11, 586-98	12
1334	Supersymmetry wimps out?. 2012 , 8, 584-586	1

1333	The effects of PHBV electrospun fibers with different diameters and orientations on growth behavior of bone-marrow-derived mesenchymal stem cells. 2012 , 7, 015002	36
1332	Fibronectin and stem cell differentiation - lessons from chondrogenesis. 2012 , 125, 3703-12	131
1331	Enhanced chondrogenic differentiation potential of human gingival fibroblasts by spheroid formation on chitosan membranes. 2012 , 18, 67-79	33
1330	Adipocyte differentiation of human bone marrow-derived stromal cells is modulated by microRNA-155, microRNA-221, and microRNA-222. 2012 , 21, 873-83	77
1329	From mechanical force to RhoA activation. 2012 , 51, 7420-32	136
1328	Rho GTPases link cellular contractile force to the density and distribution of nanoscale adhesions. 2012 , 26, 2374-82	17
1327	Fabrication and use of microenvironment microarrays (MEArrays). 2012 ,	16
1326	Rapid isolation of human stem cells (connective progenitor cells) from the distal femur during arthroscopic knee surgery. 2012 , 28, 74-84	33
1325	Probing the mechanobiological properties of human embryonic stem cells in cardiac differentiation by optical tweezers. 2012 , 45, 123-8	52
1324	Mechanical characterization of adult stem cells from bone marrow and perivascular niches. 2012 , 45, 1280-7	14
1323	European Society of Biomechanics S.M. Perren Award 2012: the external mechanical environment can override the influence of local substrate in determining stem cell fate. 2012 , 45, 2483-92	41
1322	Mechanical stimulation of cyclic tensile strain induces reduction of pluripotent related gene expressions via activation of Rho/ROCK and subsequent decreasing of AKT phosphorylation in human induced pluripotent stem cells. 2012 , 417, 836-41	34
1321	3D mesenchymal stem/stromal cell osteogenesis and autocrine signalling. 2012 , 419, 142-7	56
1320	The cytoskeletal regulatory scaffold protein GIT2 modulates mesenchymal stem cell differentiation and osteoblastogenesis. 2012 , 425, 407-12	17
1319	Exchange protein activated by cyclic adenosine monophosphate regulates the switch between adipogenesis and osteogenesis of human mesenchymal stem cells through increasing the activation of phosphatidylinositol 3-kinase. 2012 , 44, 1106-20	9
1318	Silk ionomers for encapsulation and differentiation of human MSCs. 2012 , 33, 7375-85	19
1317	The alignment and fusion assembly of adipose-derived stem cells on mechanically patterned matrices. 2012 , 33, 6943-51	119
1316	Mechanical regulation of signaling pathways in bone. 2012 , 503, 179-93	271

1315	Bioengineering methods for analysis of cells in vitro. 2012 , 28, 385-410	31
1314	Nanopatterned cardiac cell patches promote stem cell niche formation and myocardial regeneration. 2012 , 4, 1019-33	106
1313	Uniaxial mechanical tension promoted osteogenic differentiation of rat tendon-derived stem cells (rTDSCs) via the Wnt5a-RhoA pathway. 2012 , 113, 3133-42	52
1312	Polymeric biomaterials for stem cell bioengineering. 2012 , 33, 1420-31	37
1311	3D nanofabrication of fluidic components by corner lithography. 2012 , 8, 3823-31	26
1310	Stem cell bioengineering at the interface of systems-based models and high-throughput platforms. 2012 , 4, 525-45	2
1309	Regulation of ROCK1 via Notch1 during breast cancer cell migration into dense matrices. 2012 , 13, 12	23
1308	Independent specialisation of myosin II paralogues in muscle vs. non-muscle functions during early animal evolution: a ctenophore perspective. 2012 , 12, 107	36
1307	Micropatterning topology on soft substrates affects myoblast proliferation and differentiation. 2012 , 28, 2718-26	50
1306	Smart polymers and interfaces for dynamic cell-biomaterials interactions. 2012 , 37, 836-846	10
1305	Stem-cell differentiation: Anchoring cell-fate cues. 2012 , 11, 568-9	51
1304	Patterning of Polymeric Materials for Biological Applications. 2012 , 439-456	2
1303	Biology Lessons for Engineering Surfaces for Controlling CellMaterial Adhesion. 2012 , 157-187	
1302	Stiffening hydrogels to probe short- and long-term cellular responses to dynamic mechanics. 2012 , 3, 792	476
1301	Forcing stem cells to behave: a biophysical perspective of the cellular microenvironment. 2012 , 41, 519-42	319
1300	Chemical and physical properties of regenerative medicine materials controlling stem cell fate. 2012 , 44, 635-50	54
1299	Cytoskeletal and focal adhesion influences on mesenchymal stem cell shape, mechanical properties, and differentiation down osteogenic, adipogenic, and chondrogenic pathways. 2012 , 18, 436-44	259
1298	Extracellular-matrix tethering regulates stem-cell fate. 2012 , 11, 642-9	1156

1297	Estrogen and its receptor enhance mechanobiological effects in compressed bone mesenchymal stem cells. 2012 , 195, 400-13	24
1296	Computational Modeling of Tissue Engineering Scaffolds as Delivery Devices for Mechanical and Mechanically Modulated Signals. 2012 , 127-143	1
1295	7.10 Cell-Extracellular Matrix Mechanobiology in Cancer. 2012 , 142-167	
1294	CHARACTERIZATION AND EVALUATION OF TITANIUM SUBSTRATES COATED WITH GELATIN/HYDROXYAPATITE COMPOSITE FOR CULTURING RAT BONE MARROW DERIVED MESENCHYMAL STROMAL CELLS. 2012 , 24, 197-206	4
1293	Carbon nanotubes for stem cell control. 2012 , 15, 312-318	32
1292	Biophysical signals controlling cell fate decisions: how do stem cells really feel?. 2012 , 44, 2233-7	28
1291	Morphogenesis as a macroscopic self-organizing process. 2012 , 109, 262-79	36
1290	Mapping of mechanical strains and stresses around quiescent engineered three-dimensional epithelial tissues. 2012 , 103, 152-62	102
1289	Decoupling substrate stiffness, spread area, and micropost density: a close spatial relationship between traction forces and focal adhesions. 2012 , 103, 640-8	137
1288	Adhesion regulates MAP kinase/ternary complex factor exchange to control a proliferative transcriptional switch. 2012 , 22, 2017-26	28
1287	Rigid matrix supports osteogenic differentiation of stem cells from human exfoliated deciduous teeth (SHED). 2012 , 84, 366-70	17
1286	The physics of tissue formation with mesenchymal stem cells. 2012 , 30, 583-90	6
1285	Regulation of the Hippo pathway by cell architecture and mechanical signals. 2012 , 23, 803-11	100
1284	Fractal properties of macrophage membrane studied by AFM. 2012 , 43, 1239-45	17
1283	Effects of topographical and mechanical property alterations induced by oxygen plasma modification on stem cell behavior. 2012 , 6, 8591-8	71
1282	Terminal differentiation of human epidermal stem cells on micro-patterned substrates. 2012 , 916, 15-22	2
1281	Exploring the link between human embryonic stem cell organization and fate using tension-calibrated extracellular matrix functionalized polyacrylamide gels. 2012 , 916, 317-50	35
1280	Impact of Growth Factors on the Proliferation of Ear Mesenchymal Stem Cells on Porous Microcarriers. 2012 , 161-176	

1279	Cell differentiation and osseointegration influenced by nanoscale anodized titanium surfaces. 2012 , 7, 967-80	47
1278	Biomimetic cell culture proteins as extracellular matrices for stem cell differentiation. 2012 , 112, 4507-40	104
1277	Design and characterization of tissue-specific extracellular matrix-derived microcarriers. 2012 , 18, 186-97	59
1276	Advances in Stem Cell Research. 2012 ,	1
1275	Stem Cells and Cancer Stem Cells, Volume 6. 2012 ,	2
1274	Human Embryonic and Induced Pluripotent Stem Cells. 2012 ,	5
1273	An orthogonal comparison of the proteome of human embryonic stem cells with that of human induced pluripotent stem cells of different genetic background. 2012 , 8, 1833-40	7
1272	Tissue Engineering III: Cell - Surface Interactions for Tissue Culture. 2012 ,	6
1271	Biomedical Applications of Polymeric Nanofibers. 2012 ,	16
1270	Using nanotopography and metabolomics to identify biochemical effectors of multipotency. 2012 , 6, 10239-49	99
1269	Micro- and nanostructured polymer substrates for biomedical applications. 2012 ,	10
1268	Stem Cells and Cancer Stem Cells, Volume 3. 2012 ,	1
1267	A three dimensional soft matter cell model for mechanotransduction. 2012 , 8, 5765	15
1266	Low-density expansion protects human synovium-derived stem cells from replicative senescence: a preliminary study. 2012 , 2, 363-74	11
1265	Targeting lysophosphatidic acid signaling retards culture-associated senescence of human marrow stromal cells. 2012 , 7, e32185	19
1264	Activation of protein kinase A and exchange protein directly activated by cAMP promotes adipocyte differentiation of human mesenchymal stem cells. 2012 , 7, e34114	36
1263	Keratin 8/18 regulation of cell stiffness-extracellular matrix interplay through modulation of Rho-mediated actin cytoskeleton dynamics. 2012 , 7, e38780	47
1262	Mapping the mechanome of live stem cells using a novel method to measure local strain fields in situ at the fluid-cell interface. 2012 , 7, e43601	32

1261	Rap1 can bypass the FAK-Src-Paxillin cascade to induce cell spreading and focal adhesion formation. 2012 , 7, e50072	12
1260	Control of Differentiation of Human Mesenchymal Stem Cells by Altering the Geometry of Nanofibers. 2012 , 2012, 1-9	11
1259	Mechanisms underlying the osteo- and adipo-differentiation of human mesenchymal stem cells. 2012 , 2012, 793823	85
1258	Adhesive-tape soft lithography for patterning mammalian cells: application to wound-healing assays. 2012 , 53, 315-18	17
1257	Mineralization content alters osteogenic responses of bone marrow stromal cells on hydroxyapatite/polycaprolactone composite nanofiber scaffolds. 2012 , 3, 776-98	13
1256	The Role of Physical Factors in Cell Differentiation, Tissue Repair and Regeneration. 2012 ,	4
1255	Genetic Engineering and Moral Responsibility. 2012 ,	
1254	2D-DIGE proteomic analysis of mesenchymal stem cell cultured on the elasticity-tunable hydrogels. 2012 , 37, 127-39	15
1253	The effect of nicotine on the mechanical properties of mesenchymal stem cells. 2012 , 4, 29-35	16
1252	Carbon nanotubes impregnated with subventricular zone neural progenitor cells promotes recovery from stroke. 2012 , 7, 2751-65	32
1251	Inhibition of platelet-derived growth factor receptor signaling regulates Oct4 and Nanog expression, cell shape, and mesenchymal stem cell potency. 2012 , 30, 548-60	58
1250	Cyclic tensile loading regulates human mesenchymal stem cell differentiation into neuron-like phenotype. 2012 , 6 Suppl 3, s68-79	27
1249	Microengineered synthetic cellular microenvironment for stem cells. 2012 , 4, 414-27	10
1248	miR-125b Is an adhesion-regulated microRNA that protects mesenchymal stem cells from anoikis. 2012 , 30, 956-64	36
1247	Differentiation of Mesenchymal Stem Cells into Adipocyte Lineage: Role of Cytoskeleton-Associated Proteins. 2012 , 205-211	2
1246	Ribosomal protein l13a as a reference gene for human bone marrow-derived mesenchymal stromal cells during expansion, adipo-, chondro-, and osteogenesis. 2012 , 18, 761-71	36
1245	Engineering Quasi-Vivo in vitro organ models. 2012 , 745, 138-53	26
1244	Mechanosensitive mechanisms in transcriptional regulation. 2012 , 125, 3061-73	285

1243	Environmental parameters influence non-viral transfection of human mesenchymal stem cells for tissue engineering applications. 2012 , 347, 689-99	22
1242	Identity and ranking of colonic mesenchymal stromal cells. 2012 , 227, 3291-300	17
1241	Functional interaction between mesenchymal stem cells and spiral ligament fibrocytes. 2012 , 90, 1713-22	12
1240	Optimizing the osteogenicity of nanotopography using block co-polymer phase separation fabrication techniques. 2012 , 30, 1190-7	16
1239	Amine-surface-modified superparamagnetic iron oxide nanoparticles interfere with differentiation of human mesenchymal stem cells. 2012 , 30, 1499-506	60
1238	Physically crosslinked nanocomposites from silicate-crosslinked PEO: mechanical properties and osteogenic differentiation of human mesenchymal stem cells. 2012 , 12, 779-93	96
1237	Stromal interactions as regulators of tumor growth and therapeutic response: A potential target for photodynamic therapy?. 2012 , 52, 757-766	15
1236	Endothelial cell responses to micropillar substrates of varying dimensions and stiffness. 2012 , 100, 1457-66	62
1235	A novel method to fabricate thermoresponsive microstructures with improved cell attachment/detachment properties. 2012 , 100, 1946-53	6
1234	Multiscale grooved titanium processed with femtosecond laser influences mesenchymal stem cell morphology, adhesion, and matrix organization. 2012 , 100, 3108-16	46
1233	Three-dimensional in vitro tri-culture platform to investigate effects of crosstalk between mesenchymal stem cells, osteoblasts, and adipocytes. 2012 , 18, 1686-97	15
1232	PCL Nanopillars Versus Nanofibers: A Contrast in Progenitor Cell Morphology, Proliferation, and Fate Determination. 2012 , 14, B351-B356	7
1231	Using Mean Field Theory to Guide Biofunctional Materials Design. 2012 , 22, 1391-1398	57
1230	Directing Stem Cell Fate by Controlling the Affinity and Density of Ligand-Receptor Interactions at the Biomaterials Interface. 2012 , 124, 4975-4979	32
1229	Directing stem cell fate by controlling the affinity and density of ligand-receptor interactions at the biomaterials interface. 2012 , 51, 4891-5	135
1228	Effects of 3D microwell culture on growth kinetics and metabolism of human embryonic stem cells. 2012 , 59, 88-96	14
1227	Implanted adipose progenitor cells as physicochemical regulators of breast cancer. 2012 , 109, 9786-91	116
1226	Sculpting organs: mechanical regulation of tissue development. 2012 , 14, 129-54	89

1225	Advances in bioactive hydrogels to probe and direct cell fate. 2012 , 3, 421-44	257
1224	Directing cell function and fate via micropatterning: Role of cell patterning size, shape, and interconnectivity. 2012 , 2, 38-45	12
1223	Regulation of Epithelial-Mesenchymal Transition by Transmission of Mechanical Stress through Epithelial Tissues. 2012 , 5, 29-38	61
1222	Gezielte dreidimensionale Zellausrichtung und -elongation in artifiziellen Geweben. 2012 , 26, 188-195	
1221	Engineering approaches toward deconstructing and controlling the stem cell environment. 2012 , 40, 1301-15	48
1220	Long-term culture of HL-1 cardiomyocytes in modular poly(ethylene glycol) microsphere-based scaffolds crosslinked in the phase-separated state. 2012 , 8, 31-40	35
1219	A novel and simple microcontact printing technique for tacky, soft substrates and/or complex surfaces in soft tissue engineering. 2012 , 8, 1267-72	34
1218	Screening of rat mesenchymal stem cell behaviour on polydimethylsiloxane stiffness gradients. 2012 , 8, 519-30	110
1217	Adhesion and differentiation of adipose-derived stem cells on a substrate with immobilized fibroblast growth factor. 2012 , 8, 1759-67	26
1216	Cell adhesion in embryo morphogenesis. 2012 , 24, 148-53	28
1215	Atmospheric pressure plasma induced grafting of poly(ethylene glycol) onto silicone elastomers for controlling biological response. 2012 , 375, 193-202	19
1214	Modulation of osteogenic differentiation in hMSCs cells by submicron topographically-patterned ridges and grooves. 2012 , 33, 128-36	172
1213	The differential effects of aligned electrospun PHBHHx fibers on adipogenic and osteogenic potential of MSCs through the regulation of PPAR β signaling. 2012 , 33, 485-93	79
1212	Spontaneous osteogenesis of MSCs cultured on 3D microcarriers through alteration of cytoskeletal tension. 2012 , 33, 556-64	62
1211	The role of microtopography in cellular mechanotransduction. 2012 , 33, 2835-47	123
1210	Tenogenic differentiation of human MSCs induced by the topography of electrochemically aligned collagen threads. 2012 , 33, 2137-44	162
1209	Mechanical derivation of functional myotubes from adipose-derived stem cells. 2012 , 33, 2482-91	84
1208	Effects of micropitted/nanotubular titania topographies on bone mesenchymal stem cell osteogenic differentiation. 2012 , 33, 2629-41	245

1207	A calcium-induced signaling cascade leading to osteogenic differentiation of human bone marrow-derived mesenchymal stromal cells. 2012 , 33, 3205-15	304
1206	Freeform fabricated scaffolds with roughened struts that enhance both stem cell proliferation and differentiation by controlling cell shape. 2012 , 33, 4022-30	104
1205	The performance of decellularized adipose tissue microcarriers as an inductive substrate for human adipose-derived stem cells. 2012 , 33, 4490-9	83
1204	The use of carbon nanotubes to induce osteogenic differentiation of human adipose-derived MSCs in vitro and ectopic bone formation in vivo. 2012 , 33, 4818-27	222
1203	Nanotopography as modulator of human mesenchymal stem cell function. 2012 , 33, 4998-5003	124
1202	The effect of culture conditions on the adipogenic and osteogenic inductions of mesenchymal stem cells on micropatterned surfaces. 2012 , 33, 6008-19	104
1201	Guidance of stem cell fate on 2D patterned surfaces. 2012 , 33, 6626-33	136
1200	On the biomechanics of stem cell niche formation in the gut--modelling growing organoids. 2012 , 279, 3475-87	63
1199	Human bone marrow adiposity is linked with serum lipid levels not T1-diabetes. 2012 , 26, 1-9	59
1198	Endogenous production of fibronectin is required for self-renewal of cultured mouse embryonic stem cells. 2012 , 318, 1820-31	50
1197	Reality-Based Real-Time Cell Indentation Simulator. 2012 , 17, 239-250	15
1196	Mechano-geometric generative rules of morphogenesis. 2012 , 39, 119-126	4
1195	Effect of fiber alignment in electrospun scaffolds on keratocytes and corneal epithelial cells behavior. 2012 , 100, 527-35	68
1194	MR elastography monitoring of tissue-engineered constructs. 2012 , 25, 452-63	35
1193	RhoA/ROCK, cytoskeletal dynamics, and focal adhesion kinase are required for mechanical stretch-induced tenogenic differentiation of human mesenchymal stem cells. 2012 , 227, 2722-9	118
1192	Fabrication of substrates with defined mechanical properties and topographical features for the study of cell migration. 2012 , 12, 12-20	44
1191	Microfabricated biomaterials for engineering 3D tissues. 2012 , 24, 1782-804	310
1190	Tissue transglutaminase regulates chondrogenesis in mesenchymal stem cells on collagen type XI matrices. 2012 , 42, 1045-53	10

1189	Extracellular matrix enhances differentiation of adipose stem cells from infrapatellar fat pad toward chondrogenesis. 2013 , 7, 73-84	39
1188	Modulation of mesenchymal stem cell actin organization on conventional microcarriers for proliferation and differentiation in stirred bioreactors. 2013 , 7, 537-51	38
1187	Endothelial invasive response in a co-culture model with physically-induced osteodifferentiation. 2013 , 7, 621-30	12
1186	Effect of substrate stiffness on early human embryonic stem cell differentiation. 2013 , 7, 7	77
1185	Adipogenesis of adipose-derived stem cells may be regulated via the cytoskeleton at physiological oxygen levels in vitro. 2013 , 4, 79	36
1184	Mechano-sensing in Embryonic Biochemical and Morphologic Patterning: Evolutionary Perspectives in the Emergence of Primary Organisms. 2013 , 8, 232-244	1
1183	The role of RhoA kinase (ROCK) in cell alignment on nanofibers. 2013 , 9, 7737-45	22
1182	Nonmuscle myosin-2: mix and match. 2013 , 70, 1-21	158
1181	Seventh Meeting on Bone Quality 2012: Bone-Bat Interactions. 2013 , 24, 443-478	1
1180	Print-to-print: a facile multi-object micro-patterning technique. 2013 , 15, 233-40	2
1179	Immobilization Osteoporosis. 2013 , 1139-1171	5
1178	Model microgravity enhances endothelium differentiation of mesenchymal stem cells. 2013 , 100, 125-33	37
1177	Mechanically activated Fyn utilizes mTORC2 to regulate RhoA and adipogenesis in mesenchymal stem cells. 2013 , 31, 2528-37	49
1176	Exploring the mesenchymal stem cell niche using high throughput screening. 2013 , 34, 7601-15	47
1175	Impact of cell shape on cell migration behavior on elastic substrate. 2013 , 5, 015011	41
1174	The support of bone marrow stromal cell differentiation by airbrushed nanofiber scaffolds. 2013 , 34, 2389-98	120
1173	Extracellular Matrix in Development. 2013 ,	10
1172	Functional polyaniline nanofibre mats for human adipose-derived stem cell proliferation and adhesion. 2013 , 138, 333-341	29

1171	Bioactive chemical nanopatterns impact human mesenchymal stem cell fate. 2013 , 13, 3923-9	29
1170	Regeneration-on-a-chip? The perspectives on use of microfluidics in regenerative medicine. 2013 , 13, 3512-28	76
1169	In situ mechanotransduction via vinculin regulates stem cell differentiation. 2013 , 31, 2467-77	85
1168	Orchestrating osteogenic differentiation of mesenchymal stem cells--identification of placental growth factor as a mechanosensitive gene with a pro-osteogenic role. 2013 , 31, 2420-31	37
1167	To pull or be pulled: parsing the multiple modes of mechanotransduction. 2013 , 25, 558-64	28
1166	Role of the extracellular matrix in regulating stem cell fate. 2013 , 14, 467-73	590
1165	Osteoblast Biology. 2013 , 161-207	2
1164	Highly IR-transparent microfluidic chip with surface-modified BaF2 optical windows for Infrared Microspectroscopy of living cells. 2013 , 107, 6-9	12
1163	Nanoscale topography and chemistry affect embryonic stem cell self-renewal and early differentiation. 2013 , 2, 1644-50	30
1162	A genomics approach in determining nanotopographical effects on MSC phenotype. 2013 , 34, 2177-84	53
1161	Effects of hydroxyapatite-containing composite nanofibers on osteogenesis of mesenchymal stem cells in vitro and bone regeneration in vivo. 2013 , 5, 319-30	115
1160	Structural changes in PVDF fibers due to electrospinning and its effect on biological function. 2013 , 8, 045007	105
1159	Evaluation of early stage human bone marrow stromal proliferation, cell migration and osteogenic differentiation on EMIM structured stainless steel surfaces. 2013 , 24, 1285-92	2
1158	Simplified microenvironments and reduced cell culture size influence the cell differentiation outcome in cellular microarrays. 2013 , 24, 189-98	1
1157	Cell mediated contraction in 3D cell-matrix constructs leads to spatially regulated osteogenic differentiation. 2013 , 5, 1174-83	20
1156	Mechanobiology of bone marrow stem cells: from myosin-II forces to compliance of matrix and nucleus in cell forms and fates. 2013 , 86, 77-86	53
1155	Effects of matrix elasticity and cell density on human mesenchymal stem cells differentiation. 2013 , 31, 1360-5	62
1154	Nanotopographical cues augment mesenchymal differentiation of human embryonic stem cells. 2013 , 9, 2140-51	73

1153	Whole-Tooth Engineering and Cell Sources. 2013 , 431-446	4
1152	YAP-mediated regulation of the chondrogenic phenotype in response to matrix elasticity. 2013 , 44, 587-95	53
1151	Capillary-valve-based platform towards cell-on-chip mechanotransduction assays. 2013 , 188, 1019-1025	3
1150	Mesenchymal stem cells exploit extracellular matrix as mechanotransducer. 2013 , 3, 2425	71
1149	Review of biophysical factors affecting osteogenic differentiation of human adult adipose-derived stem cells. 2013 , 5, 11-28	9
1148	Characterizing and Patterning Polyacrylamide Substrates Functionalized with N-Hydroxysuccinimide. 2013 , 6, 299-309	15
1147	Leucine-rich repeat-containing G-protein coupled receptor 5/GPR49 activates G12/13-Rho GTPase pathway. 2013 , 36, 267-72	12
1146	Cell-material interactions revealed via material techniques of surface patterning. 2013 , 25, 5257-86	370
1145	Tenogenic differentiation of equine adipose-tissue-derived stem cells under the influence of tensile strain, growth differentiation factors and various oxygen tensions. 2013 , 352, 509-21	54
1144	Carbon nanotubes: their potential and pitfalls for bone tissue regeneration and engineering. 2013 , 9, 1139-58	87
1143	Micropatterning-retinoic acid co-control of neuronal cell morphology and neurite outgrowth. 2013 , 9, 4592-8	27
1142	Blueberry consumption prevents loss of collagen in bone matrix and inhibits senescence pathways in osteoblastic cells. 2013 , 35, 807-20	29
1141	Print-to-Print: A facile flexible multi-object patterning process using superhydrophobic films. 2013 ,	
1140	Severe Deformations of Malignant Bone and Skin Cells, as well as Aged Cells, on Micropatterned Surfaces. 2013 , 469-489	1
1139	microRNAs regulate adipocyte differentiation. 2013 , 37, 533-46	47
1138	Micromechanical Design Criteria for Tissue Engineering Biomaterials. 2013 , 1165-1178	1
1137	Cell-Cell Interactions. 2013 ,	4
1136	Guidance of cell migration by substrate dimension. 2013 , 104, 313-21	71

1135	The self-renewal of mouse embryonic stem cells is regulated by cell-substratum adhesion and cell spreading. 2013 , 45, 2698-705	27
1134	Regulation of postnatal bone homeostasis by TGF β 2013 , 2, 255	57
1133	Calcium-incorporated titanium surfaces influence the osteogenic differentiation of human mesenchymal stem cells. 2013 , 101, 2573-85	25
1132	Facile engineering of xeno-free microcarriers for the scalable cultivation of human pluripotent stem cells in stirred suspension. 2014 , 20, 588-99	27
1131	Chitosan/gelatin porous scaffolds containing hyaluronic acid and heparan sulfate for neural tissue engineering. 2013 , 24, 999-1014	49
1130	Mechanobiology and developmental control. 2013 , 29, 27-61	279
1129	Biophysical regulation of epigenetic state and cell reprogramming. 2013 , 12, 1154-62	330
1128	Heart extracellular matrix supports cardiomyocyte differentiation of mouse embryonic stem cells. 2013 , 115, 320-5	44
1127	Cell and Molecular Biology of Breast Cancer. 2013 ,	8
1126	Cell shape-dependent early responses of fibroblasts to cyclic strain. 2013 , 1833, 3415-3425	7
1125	Mechanotherapy: revisiting physical therapy and recruiting mechanobiology for a new era in medicine. 2013 , 19, 555-64	116
1124	Studying intracellular trafficking pathways with probabilistic density maps. 2013 , 118, 325-43	6
1123	ASB2 β an E3 ubiquitin ligase specificity subunit, regulates cell spreading and triggers proteasomal degradation of filamins by targeting the filamin calponin homology 1 domain. 2013 , 288, 32093-105	15
1122	Cells actively stiffen fibrin networks by generating contractile stress. 2013 , 105, 2240-51	108
1121	Morphogenesis can be driven by properly parametrised mechanical feedback. 2013 , 36, 132	6
1120	Animal Models of Bone Disease-B. 2013 , 391-417	3
1119	New tools and new biology: recent miniaturized systems for molecular and cellular biology. 2013 , 36, 485-506	26
1118	High-throughput fingerprinting of human pluripotent stem cell fate responses and lineage bias. 2013 , 10, 1225-31	51

1117	Fibrous hyaluronic acid hydrogels that direct MSC chondrogenesis through mechanical and adhesive cues. 2013 , 34, 5571-80	177
1116	Designing nanotopographical density of extracellular matrix for controlled morphology and function of human mesenchymal stem cells. 2013 , 3, 3552	104
1115	Stimuli-Responsive Surfaces in Biomedical Applications. 2013 , 377-422	5
1114	Inhibition of actin polymerization decreases osteogenic differentiation of mesenchymal stem cells through p38 MAPK pathway. 2013 , 20, 71	61
1113	Response of bone marrow derived connective tissue progenitor cell morphology and proliferation on geometrically modulated microtextured substrates. 2013 , 15, 385-96	10
1112	New insights in osteogenic differentiation revealed by mass spectrometric assessment of phosphorylated substrates in murine skin mesenchymal cells. 2013 , 14, 47	10
1111	Shaping development through mechanical strain: the transcriptional basis of diet-induced phenotypic plasticity in a cichlid fish. 2013 , 22, 4516-31	70
1110	The interplay between cell signalling and mechanics in developmental processes. 2013 , 14, 733-44	127
1109	Substrate-dependent Wnt signaling in MSC differentiation within biomaterial-derived 3D spheroids. 2013 , 34, 4725-38	69
1108	Role of the P2Y13 receptor in the differentiation of bone marrow stromal cells into osteoblasts and adipocytes. 2013 , 31, 2747-58	49
1107	ECM-modulated cellular dynamics as a driving force for tissue morphogenesis. 2013 , 23, 408-14	133
1106	Articular cartilage-derived cells hold a strong osteogenic differentiation potential in comparison to mesenchymal stem cells in vitro. 2013 , 319, 2856-65	20
1105	Probing the mechanosensitivity in cell adhesion and migration: Experiments and modeling. 2013 , 29, 469-484	4
1104	Substrate curvature sensing through Myosin IIa upregulates early osteogenesis. 2013 , 5, 1407-16	43
1103	Three-dimensional graphene foams promote osteogenic differentiation of human mesenchymal stem cells. 2013 , 5, 4171-6	197
1102	Influence of cell protrusion and spreading on adipogenic differentiation of mesenchymal stem cells on micropatterned surfaces. 2013 , 9, 4160	28
1101	Extracellular Matrix Remodeling and Mechanical Stresses as Modulators of Adipose Tissue Metabolism and Inflammation. 2013 , 105-122	2
1100	Abi3bp is a multifunctional autocrine/paracrine factor that regulates mesenchymal stem cell biology. 2013 , 31, 1669-82	36

1099	Topological and electrical control of cardiac differentiation and assembly. 2013 , 4, 14	29
1098	FRET imaging of calcium signaling in live cells in the microenvironment. 2013 , 5, 431-8	2
1097	A Simple Nanoscale Interface Directs Alignment of a Confluent Cell Layer on Oxide and Polymer Surfaces. 2013 , 1, 3553-3561	12
1096	Understanding the role of nano-topography on the surface of a bone-implant. 2013 , 1, 135-151	50
1095	Engineering stem cell fate with biochemical and biomechanical properties of microcarriers. 2013 , 29, 1354-66	71
1094	Fabrication of multilayer structured tubular tissue using water transfer printing. 2013 ,	
1093	Cell adhesion and mechanical stimulation in the regulation of mesenchymal stem cell differentiation. 2013 , 17, 823-32	152
1092	Micropatterned TiO nanotubes: fabrication, characterization and in vitro protein/cell responses. 2013 , 1, 3506-3512	23
1091	Human mesenchymal stem-cell behaviour on direct laser micropatterned electrospun scaffolds with hierarchical structures. 2013 , 13, 299-310	40
1090	Nanotopography-guided tissue engineering and regenerative medicine. 2013 , 65, 536-58	301
1089	Effects of aspect ratios of stem cells on lineage commitments with and without induction media. 2013 , 34, 930-9	114
1088	Control of adipogenesis by ezrin, radixin and moesin-dependent biomechanics remodeling. 2013 , 46, 521-6	22
1087	Cryopreservation of alginate encapsulated mesenchymal stromal cells. 2013 , 66, 215-22	49
1086	Tissue scaffold surface patterning for clinical applications. 2013 , 8, 73-84	20
1085	Mimicking the nanostructure of bone matrix to regenerate bone. 2013 , 16, 418-423	79
1084	Effects of surface molecular chirality on adhesion and differentiation of stem cells. 2013 , 34, 9001-9	86
1083	Why cellular stress suppresses adipogenesis in skeletal tissue, but is ineffective in adipose tissue: control of mesenchymal cell differentiation via integrin binding sites in extracellular matrices. 2013 , 32, 365-71	18
1082	Cell migration: cooperation between myosin II isoforms in durotaxis. 2013 , 23, R28-9	4

1081	Synergistic effects of nanotopography and co-culture with endothelial cells on osteogenesis of mesenchymal stem cells. 2013 , 34, 7257-68	87
1080	Extracellular matrix protein adsorption to phosphate-functionalized gels from serum promotes osteogenic differentiation of human mesenchymal stem cells. 2013 , 9, 4525-34	55
1079	Directing stem cell fate on hydrogel substrates by controlling cell geometry, matrix mechanics and adhesion ligand composition. 2013 , 34, 8140-8	214
1078	Reproductive stem cell differentiation: extracellular matrix, tissue microenvironment, and growth factors direct the mesenchymal stem cell lineage commitment. 2013 , 20, 1137-43	24
1077	Porous decellularized adipose tissue foams for soft tissue regeneration. 2013 , 34, 3290-302	121
1076	The role of RhoA kinase inhibition in human placenta-derived multipotent cells on neural phenotype and cell survival. 2013 , 34, 3223-30	11
1075	Shape-dependent cell migration and focal adhesion organization on suspended and aligned nanofiber scaffolds. 2013 , 9, 7169-77	79
1074	Influence of polymer molecular weight in osteoinductive composites for bone tissue regeneration. 2013 , 9, 9401-13	28
1073	Mechanical factors in embryonic tendon development: potential cues for stem cell tenogenesis. 2013 , 24, 834-40	66
1072	Stimulation of adipogenesis of adult adipose-derived stem cells using substrates that mimic the stiffness of adipose tissue. 2013 , 34, 8581-8	155
1071	Cytoskeletal tension modulates MMP-1 gene expression from tenocytes on micropillar substrates. 2013 , 46, 991-7	25
1070	The Hippo pathway: regulators and regulations. 2013 , 27, 355-71	818
1069	Elastic three-dimensional poly (ε-caprolactone) nanofibre scaffold enhances migration, proliferation and osteogenic differentiation of mesenchymal stem cells. 2013 , 46, 23-37	62
1068	The effect of mesenchymal stem cell shape on the maintenance of multipotency. 2013 , 34, 3962-3969	94
1067	Mechanobiology of human pluripotent stem cells. 2013 , 19, 420-30	26
1066	Corrugated round fibers to improve cell adhesion and proliferation in tissue engineering scaffolds. 2013 , 9, 6928-35	22
1065	The effect of forced growth of cells into 3D spheres using low attachment surfaces on the acquisition of stemness properties. 2013 , 34, 3215-22	60
1064	Self-Supporting Graphene Hydrogel Film as an Experimental Platform to Evaluate the Potential of Graphene for Bone Regeneration. 2013 , 23, 3494-3502	100

1063	Spheroid culture as a tool for creating 3D complex tissues. 2013 , 31, 108-15	639
1062	Degradation-mediated cellular traction directs stem cell fate in covalently crosslinked three-dimensional hydrogels. 2013 , 12, 458-65	837
1061	Effect of RGD nanospacing on differentiation of stem cells. 2013 , 34, 2865-74	156
1060	Rigidity-patterned polyelectrolyte films to control myoblast cell adhesion and spatial organization. 2013 , 23, 3432-3442	29
1059	A screening approach reveals the influence of mineral coating morphology on human mesenchymal stem cell differentiation. 2013 , 8, 496-501	10
1058	Bacteria-surface interactions. 2013 , 9, 4368-4380	381
1057	Theoretical aspects of Systems Biology. 2013 , 112, 33-43	49
1056	Osteogenesis of mesenchymal stem cells by nanoscale mechanotransduction. 2013 , 7, 2758-67	85
1055	Activation of beta 1 but not beta 3 integrin increases cell traction forces. 2013 , 587, 763-9	58
1054	Mechanoregulation of stem cell fate via micro-/nano-scale manipulation for regenerative medicine. 2013 , 8, 623-38	40
1053	Graphene-incorporated chitosan substrata for adhesion and differentiation of human mesenchymal stem cells. 2013 , 1, 933-938	119
1052	Targeting integrins to promote bone formation and repair. 2013 , 9, 288-95	101
1051	Microcarrier culture for efficient expansion and osteogenic differentiation of human fetal mesenchymal stem cells. 2013 , 2, 84-97	108
1050	Bioreactor engineering of stem cell environments. 2013 , 31, 1020-31	43
1049	Core-shell nanoparticle controlled hATSCs neurogenesis for neuropathic pain therapy. 2013 , 34, 4956-70	19
1048	A generic micropatterning platform to direct human mesenchymal stem cells from different origins towards myogenic differentiation. 2013 , 13, 799-807	13
1047	An actin length threshold regulates adhesion maturation at the lamellipodium/lamellum interface. 2013 , 5, 865-76	4
1046	Biomechanical and rheological characterization of mild intervertebral disc degeneration in a large animal model. 2013 , 31, 703-9	29

1045 Craniofacial Intramembranous Bone Development and Regeneration. **2013**, 51-69

1044 Physical cues of biomaterials guide stem cell differentiation fate. **2013**, 113, 3297-328

329

1043 MT1-MMP-dependent control of skeletal stem cell commitment via a β -integrin/YAP/TAZ signaling axis. *Developmental Cell*, **2013**, 25, 402-16

10.2 185

1042 Delivery of mesenchymal stem cells in chitosan/collagen microbeads for orthopedic tissue repair. **2013**, 197, 333-43

67

1041 Epithelial mechanobiology, skin wound healing, and the stem cell niche. **2013**, 28, 397-409

155

1040 Titania Nanotube Coatings on Dental Implants with Enhanced Osteogenic Activity and Anti-Infection Properties. **2013**, 337-357

1

1039 Preparation of a soft and interconnected macroporous hydroxypropyl cellulose methacrylate scaffold for adipose tissue engineering. **2013**, 1, 3107-3117

55

1038 Probing the dynamic responses of individual actin filaments under fluidic mechanical stimulation via microfluidics. **2013**, 102, 193704

1

1037 Enhancing the osteogenic efficacy of human bone marrow aspirate: concentrating osteoprogenitors using wave-assisted filtration. **2013**, 15, 242-52

25

1036 Embryonic and induced pluripotent stem cells: understanding, creating, and exploiting the nano-niche for regenerative medicine. **2013**, 7, 1867-81

78

1035 Nanotopography modulates mechanotransduction of stem cells and induces differentiation through focal adhesion kinase. **2013**, 7, 4785-98

304

1034 When Stemness Meets Engineering: Towards β -Control of Stem Cell Functions for Enhanced Cardiovascular Regeneration. **2013**, 457-473

1033 Engineering of the embryonic and adult stem cell niches. **2013**, 15, 83-92

13

1032 Functional morphometric analysis in cellular behaviors: shape and size matter. **2013**, 2, 1188-97

31

1031 Microfluidic Cell Culture Platforms with Embedded Nanoscale Features. **2013**, 3-26

2

1030 Cells and Surfaces in vitro. **2013**, 408-427

6

1029 Tissue induction, the relationship between biomaterial β microenvironment and mesenchymal stem cell differentiation. **2013**, 06, 85-91

2

1028 Nanomaterial scaffolds for stem cell proliferation and differentiation in tissue engineering. **2013**, 31, 654-68

175

1027	A bio-inspired platform to modulate myogenic differentiation of human mesenchymal stem cells through focal adhesion regulation. 2013 , 2, 442-9	38
1026	Engineered ECM Microenvironments and Their Regulation of Stem Cells. 2013 , 133-160	1
1025	Mesenchymal stem cell and chondrocyte fates in a multishear microdevice are regulated by Yes-associated protein. 2013 , 22, 2083-93	74
1024	Migration patterns and cell functions of adipose-derived stromal cells on self-assembled monolayers with different functional groups. 2013 , 24, 94-117	12
1023	Near-infrared optical imaging for monitoring the regeneration of osteogenic tissue-engineered constructs. 2013 , 2, 186-91	15
1022	Stem cell regulation by the Hippo pathway. 2013 , 1830, 2323-34	61
1021	Geometry-Force Control of Stem Cell Fate. 2013 , 3, 43-51	18
1020	Novel nanostructured biodegradable polymer matrices fabricated by phase separation techniques for tissue regeneration. 2013 , 9, 6915-27	24
1019	The osteogenic activity of strontium loaded titania nanotube arrays on titanium substrates. 2013 , 34, 19-29	194
1018	The influence of hyaluronic acid hydrogel crosslinking density and macromolecular diffusivity on human MSC chondrogenesis and hypertrophy. 2013 , 34, 413-21	210
1017	LIM kinase 1 deficient mice have reduced bone mass. 2013 , 52, 70-82	23
1016	Fabrication of biomolecule-PEG micropattern on titanium surface and its effects on platelet adhesion. 2013 , 102, 457-65	23
1015	Effects of barium titanate nanoparticles on proliferation and differentiation of rat mesenchymal stem cells. 2013 , 102, 312-20	75
1014	Chondrogenesis on sulfonate-coated hydrogels is regulated by their mechanical properties. 2013 , 17, 337-46	32
1013	Thin polymer brush decouples biomaterial's micro-/nanotopology and stem cell adhesion. 2013 , 29, 13843-52	25
1012	Dynamic substrate based on photocleavable poly(ethylene glycol): zeta potential determines the capability of geometrical cell confinement. 2013 , 29, 7300-8	22
1011	Reorganization of cytoskeleton and transient activation of Ca ²⁺ channels in mesenchymal stem cells cultured on silicon nanowire arrays. 2013 , 5, 13295-304	39
1010	Particle-collision and porogen-leaching technique to fabricate polymeric porous scaffolds with microscale roughness of interior surfaces. 2013 , 31, 737-747	15

1009	Medical applications of biopolyesters polyhydroxyalkanoates. 2013 , 31, 719-736	39
1008	Sequential nucleophilic substitutions permit orthogonal click functionalization of multicomponent PEG brushes. 2013 , 14, 3294-303	30
1007	Control over the gradient differentiation of rat BMSCs on a PCL membrane with surface-immobilized alendronate gradient. 2013 , 14, 342-9	43
1006	Nanomechanics controls neuronal precursors adhesion and differentiation. 2013 , 110, 2301-10	21
1005	Neuronal differentiation of embryonic stem cell derived neuronal progenitors can be regulated by stretchable conducting polymers. 2013 , 19, 1984-93	20
1004	Relative impact of uniaxial alignment vs. form-induced stress on differentiation of human adipose derived stem cells. 2013 , 34, 9812-8	28
1003	On-chip parylene-C microstencil for simple-to-use patterning of proteins and cells on polydimethylsiloxane. 2013 , 5, 2658-68	12
1002	Role of Mechanical Stimulations in Directing Mesenchymal Stem Cell Adipogenesis. 2013 , 63-87	
1001	Cell adhesion and osteogenic differentiation on three-dimensional pillar surfaces. 2013 , 101, 842-52	22
1000	Modular multifunctional poly(ethylene glycol) hydrogels for stem cell differentiation. 2013 , 23, 575-582	47
999	Precise control of cell adhesion by combination of surface chemistry and soft lithography. 2013 , 2, 95-108	74
998	Stem cell response to spatially and temporally displayed and reversible surface topography. 2013 , 2, 155-64	69
997	Stem-cell niche based comparative analysis of chemical and nano-mechanical material properties impacting ex vivo expansion and differentiation of hematopoietic and mesenchymal stem cells. 2013 , 2, 25-42	53
996	Effects of Wavy Microgroove Structure on Ligament Fibroblast Cell and Nuclear Morphology. 2013 ,	
995	Composite electrospun nanofibers for influencing stem cell fate. 2013 , 1058, 25-40	5
994	Determining the role of matrix compliance in the differentiation of mammary stem cells. 2014 , 1202, 79-94	
993	Distinct signaling mechanisms regulate migration in unconfined versus confined spaces. 2013 , 202, 807-24	109
992	Parallel geometric classification of stem cells by their three-dimensional morphology. 2013 , 6, 015007	2

991	Shp2 plays a crucial role in cell structural orientation and force polarity in response to matrix rigidity. 2013 , 110, 2840-5	30
990	Biochanin a promotes osteogenic but inhibits adipogenic differentiation: evidence with primary adipose-derived stem cells. 2013 , 2013, 846039	18
989	Cell mechanosensitivity: mechanical properties and interaction with gravitational field. 2013 , 2013, 598461	26
988	Cultivation and spontaneous differentiation of rat bone marrow-derived mesenchymal stem cells on polymeric surfaces. 2013 , 55, 143-56	7
987	Foxc2 induces Wnt4 and Bmp4 expression during muscle regeneration and osteogenesis. 2013 , 20, 1031-42	23
986	Emerging Stem Cell Controls: Nanomaterials and Plasma Effects. 2013 , 2013, 1-15	13
985	Osteogenesis of human mesenchymal stem cells on micro-patterned surfaces. 2013 , 27, 862-71	21
984	Voltage-gated K ⁺ channels in adipogenic differentiation of bone marrow-derived human mesenchymal stem cells. 2013 , 34, 129-36	31
983	Cell orientation and regulation of cell-cell communication in human mesenchymal stem cells on different patterns of electrospun fibers. 2013 , 8, 055002	45
982	Mesenchymal stem cell mechanobiology and emerging experimental platforms. 2013 , 10, 20130179	103
981	Plectin-containing, centrally localized focal adhesions exert traction forces in primary lung epithelial cells. 2013 , 126, 3746-55	12
980	Sustainable three-dimensional tissue model of human adipose tissue. 2013 , 19, 745-54	51
979	Stem cell culture: mimicking the stem cell niche in vitro. 2013 , 33-68	
978	Laminin production and basement membrane deposition by mesenchymal stem cells upon adipogenic differentiation. 2013 , 61, 719-30	32
977	Engineered micromechanical cues affecting human pluripotent stem cell regulations and fate. 2013 , 18, 482-93	10
976	Mechanical Stretching and Signaling Pathways in Adipogenesis. 2013 , 35-62	1
975	Nanotechnology in the regulation of stem cell behavior. 2013 , 14, 054401	23
974	Surface Modification and Coating of the Carbon/Carbon Composite in the Medical Fields. 2013 , 320, 435-440	

973 Regulation of YAP and TAZ by Epithelial Plasticity. **2013**, 89-113

972 Response of sheep chondrocytes to changes in substrate stiffness from 2 to 20 Pa: effect of cell passaging. **2013**, 54, 159-66 26

971 RhoA mediates defective stem cell function and heterotopic ossification in dystrophic muscle of mice. **2013**, 27, 3619-31 29

970 Actin in action: imaging approaches to study cytoskeleton structure and function. **2013**, 2, 715-31 24

969 Biomimetic injectable HUVEC-adipocytes/collagen/alginate microsphere co-cultures for adipose tissue engineering. **2013**, 110, 1430-43 35

968 A large mobility of hydrophilic molecules at the outmost layer controls the protein adsorption and adhering behavior with the actin fiber orientation of human umbilical vein endothelial cells (HUVEC). **2013**, 24, 1320-32 10

967 High-precision microscopic phase imaging without phase unwrapping. **2013**,

966 Protein kinase inhibitor $\bar{\eta}$ reciprocally regulates osteoblast and adipocyte differentiation by downregulating leukemia inhibitory factor. **2013**, 31, 2789-99 7

965 Culture on a 3,4-dihydroxy-L-phenylalanine-coated surface promotes the osteogenic differentiation of human mesenchymal stem cells. **2013**, 19, 1255-63 7

964 Surface bound amine functional group density influences embryonic stem cell maintenance. **2013**, 2, 585-90 20

963 Surface topography regulates wnt signaling through control of primary cilia structure in mesenchymal stem cells. **2013**, 3, 3545 72

962 Patterned three-dimensional encapsulation of embryonic stem cells using dielectrophoresis and stereolithography. **2013**, 2, 450-8 43

961 Modulation of BMP-2-induced chondrogenic versus osteogenic differentiation of human mesenchymal stem cells by cell-specific extracellular matrices. **2013**, 19, 49-58 39

960 Automatic detection of 3D cell protrusions using spherical wavelets. **2013**, 2

959 Short (15 minutes) bone morphogenetic protein-2 treatment stimulates osteogenic differentiation of human adipose stem cells seeded on calcium phosphate scaffolds in vitro. **2013**, 19, 571-81 32

958 Spatial organization of cell-adhesive ligands for advanced cell culture. **2013**, 8, 1411-23 34

957 mTOR regulates fatty infiltration through SREBP-1 and PPAR α after a combined massive rotator cuff tear and suprascapular nerve injury in rats. **2013**, 31, 724-30 47

956 Mechanotransduction at focal adhesions: from physiology to cancer development. **2013**, 17, 597-604 33

955	Enhanced osteogenic fate and function of MC3T3-E1 cells on nanoengineered polystyrene surfaces with nanopillar and nanopore arrays. 2013 , 5, 025007	27
954	Migration speed and directionality switch of normal epithelial cells after TGF- β -induced EMT (tEMT) on micro-structured polydimethylsiloxane (PDMS) substrates with variations in stiffness and topographic patterning. 2013 , 20, 115-26	12
953	A biomimetic physiological model for human adipose tissue by adipocytes and endothelial cell cocultures with spatially controlled distribution. 2013 , 8, 045005	21
952	Adhesion, proliferation, and differentiation of mesenchymal stem cells on RGD nanopatterns of varied nanospacings. 2013 , 9, 280-6	44
951	NANOTOPOGRAPHICAL MODULATION OF CELL PHENOTYPE AND FUNCTION. 2013 , 03, 1340003	1
950	Modulation of macrophage phenotype by cell shape. 2013 , 110, 17253-8	714
949	Insights into the role of focal adhesion modulation in myogenic differentiation of human mesenchymal stem cells. 2013 , 22, 136-47	39
948	p190-B RhoGAP regulates the functional composition of the mesenchymal microenvironment. 2013 , 27, 2209-19	5
947	Dose-dependent enhancement of bone marrow stromal cells adhesion, spreading and osteogenic differentiation on atmospheric plasma-treated poly(l-lactic acid) nanofibers. 2013 , 28, 453-467	9
946	An affine micro-sphere-based constitutive model, accounting for junctional sliding, can capture F-actin network mechanics. 2013 , 16, 1002-12	3
945	Spreading area and shape regulate apoptosis and differentiation of osteoblasts. 2013 , 8, 055005	23
944	Adipose-derived stem cell fate is predicted by cellular mechanical properties. 2013 , 2, 87-91	23
943	Shape in migration: quantitative image analysis of migrating chemoresistant HCT-8 colon cancer cells. 2013 , 7, 450-9	24
942	Protein kinase A activates the Hippo pathway to modulate cell proliferation and differentiation. 2013 , 27, 1223-32	219
941	A simplified micropatterning method for straight-line neurite extension of cultured hippocampal neurons. 2013 , 29, 263-6	
940	Transcription factors for dental stem cell differentiation. 2013 , 28, e478-86	4
939	Blood-derived Biomaterials: What Role Can They Play in Regenerative Medicine and Stem Cell Therapy?. 2013 , 77-98	
938	Human mesenchymal stem cells differentiate to epithelial cells when cultured on thick collagen gel. 2013 , 23, 143-53	4

937	Control of olfactory ensheathing cell behaviors by electrospun silk fibroin fibers. 2013 , 22 Suppl 1, S39-50	16
936	Mechanically induced osteogenic lineage commitment of stem cells. 2013 , 4, 107	92
935	Bone marrow mesenchymal stem cells combined with calcium alginate gel modified by hTGF- β 1 for the construction of tissue-engineered cartilage in three-dimensional conditions. 2013 , 5, 95-101	9
934	Assessment of cellular viability on calcium sulphate/hydroxyapatite injectable scaffolds. 2013 , 4, 2041731413509645	9
933	In situ control of cell substrate microtopographies using photolabile hydrogels. 2013 , 9, 578-84	42
932	Applications of Microfabrication and Microfluidic Techniques in Mesenchymal Stem Cell Research. 2013 , 69-95	
931	Embryonic stem cells incorporate into newly formed bone and do not form tumors in an immunocompetent mouse fracture model. 2013 , 22, 1453-62	10
930	Matrix identity and tractional forces influence indirect cardiac reprogramming. 2013 , 3, 3474	30
929	In vitro proliferation and osteogenic differentiation of mesenchymal stem cells on nanoporous alumina. 2013 , 8, 2745-56	28
928	Going 3D Cell Culture Approaches for Stem Cell Research and Therapy. 2013 , 2, 8-19	6
927	Ultrafast laser texturing of Ti-6Al-4V surfaces for biomedical applications. 2013 ,	3
926	A multi-paradigm modeling framework to simulate dynamic reciprocity in a bioreactor. 2013 , 8, e59671	21
925	The immunoglobulin superfamily protein differentiation of embryonic stem cells 1 (dies1) has a regulatory role in preadipocyte to adipocyte conversion. 2013 , 8, e65531	9
924	Modulating the actin cytoskeleton affects mechanically induced signal transduction and differentiation in mesenchymal stem cells. 2013 , 8, e71283	79
923	Deciphering the combinatorial roles of geometric, mechanical, and adhesion cues in regulation of cell spreading. 2013 , 8, e81113	10
922	Microbioreactor array screening of Wnt modulators and microenvironmental factors in osteogenic differentiation of mesenchymal progenitor cells. 2013 , 8, e82931	12
921	C-Jun N-terminal kinase (JNK) mediates Wnt5a-induced cell motility dependent or independent of RhoA pathway in human dental papilla cells. 2013 , 8, e69440	18
920	Distinct effects of RGD-glycoproteins on Integrin-mediated adhesion and osteogenic differentiation of human mesenchymal stem cells. 2013 , 10, 1846-59	30

919	Inhibition of Rac and ROCK signalling influence osteoblast adhesion, differentiation and mineralization on titanium topographies. 2013 , 8, e58898	31
918	Chondrocyte Behavior on Micropatterns Fabricated Using Layer-by-Layer Lift-Off: Morphological Analysis. 2013 , 2013, 560328	4
917	Biotensegrity: a unifying theory of biological architecture with applications to osteopathic practice, education, and research--a review and analysis. 2013 , 113, 34-52	44
916	A ROCK Inhibitor Blocks the Inhibitory Effect of Chondroitin Sulfate Proteoglycan on Morphological Changes of Mesenchymal Stromal/Stem Cells into Neuron-Like Cells. 2013 , 21, 447-53	8
915	Control of cell differentiation by mechanical stress. 2013 , 2, 49-62	5
914	. 2013 ,	112
913	CD146/MCAM Surface Marker for Identifying Human Periodontal Ligament-derived Mesenchymal Stem Cells. 2013 , 22, 115-128	3
912	3D non-woven polyvinylidene fluoride scaffolds: fibre cross section and texturizing patterns have impact on growth of mesenchymal stromal cells. 2014 , 9, e94353	15
911	Application of Carbon Nanomaterials to Biointerface. 2014 , 65, 262-267	
910	Resveratrol protects chondrocytes from apoptosis via altering the ultrastructural and biomechanical properties: an AFM study. 2014 , 9, e91611	18
909	Label-free morphology-based prediction of multiple differentiation potentials of human mesenchymal stem cells for early evaluation of intact cells. 2014 , 9, e93952	35
908	Controlling osteogenic stem cell differentiation via soft bioinspired hydrogels. 2014 , 9, e98640	29
907	HDAC6 deacetylase activity is critical for lipopolysaccharide-induced activation of macrophages. 2014 , 9, e110718	42
906	Modulating human mesenchymal stem cell plasticity using micropatterning technique. 2014 , 9, e113043	5
905	Nanotopography alters nuclear protein expression, proliferation and differentiation of human mesenchymal stem/stromal cells. 2014 , 9, e114698	22
904	Rho-associated protein kinases play an important role in the differentiation of rat adipose-derived stromal cells into cardiomyocytes in vitro. 2014 , 9, e115191	7
903	Cell microenvironment engineering and monitoring for tissue engineering and regenerative medicine: the recent advances. 2014 , 2014, 921905	129
902	Silver nanoparticles promote osteogenic differentiation of human urine-derived stem cells at noncytotoxic concentrations. 2014 , 9, 2469-78	80

901	Human pluripotent stem cells on artificial microenvironments: a high content perspective. 2014 , 5, 150	10
900	Design Criteria for Generating Physiologically Relevant In Vitro Models in Bioreactors. 2014 , 2, 548-569	47
899	Nanoengineered Platforms to Guide Pluripotent Stem Cell Fate. 2014 , 5,	3
898	. 2014 ,	6
897	Alignment of Carbon Nanotubes: An Approach to Modulate Cell Orientation and Asymmetry. 2014 , 4,	3
896	Osteogenic commitment of mesenchymal stem cells in apatite nanorod-aligned ceramics. 2014 , 6, 21886-93	24
895	Nanotopographical Surfaces for Stem Cell Fate Control: Engineering Mechanobiology from the Bottom. 2014 , 9, 759-784	136
894	Restraint of the Differentiation of Mesenchymal Stem Cells by a Nonfouling Zwitterionic Hydrogel. 2014 , 126, 12943-12948	9
893	A novel mechanotactic 3D modeling of cell morphology. 2014 , 11, 046005	11
892	Quantification and modeling of stem cell-niche interaction. 2014 , 844, 11-36	7
891	Efficient myogenic commitment of human mesenchymal stem cells on biomimetic materials replicating myoblast topography. 2014 , 9, 1604-12	12
890	Enhanced collagen type I synthesis by human tenocytes subjected to periodic in vitro mechanical stimulation. 2014 , 15, 386	28
889	Rac1 GTPase silencing counteracts microgravity-induced effects on osteoblastic cells. 2014 , 28, 4077-87	22
888	Spatially coordinated changes in intracellular rheology and extracellular force exertion during mesenchymal stem cell differentiation. 2014 , 11, 056004	12
887	Focal adhesions function as a mechanosensor. 2014 , 126, 55-73	18
886	Cell-Material Interactions. 2014 , 217-251	7
885	Expression of versican V3 by arterial smooth muscle cells alters tumor growth factor [TGF], epidermal growth factor (EGF)-, and nuclear factor B (NFB)-dependent signaling pathways, creating a microenvironment that resists monocyte adhesion. 2014 , 289, 15393-404	21
884	Transforming growth factor B-induced superficial zone protein accumulation in the surface zone of articular cartilage is dependent on the cytoskeleton. 2014 , 20, 921-9	25

883	MWCNTs enhance hBMSCs spreading but delay their proliferation in the direction of differentiation acceleration. 2014 , 8, 487-92	5
882	Multiwalled carbon nanotubes enhance human bone marrow mesenchymal stem cells' spreading but delay their proliferation in the direction of differentiation acceleration. 2014 , 8, 558-62	16
881	Restraint of the differentiation of mesenchymal stem cells by a nonfouling zwitterionic hydrogel. 2014 , 53, 12729-34	50
880	Engaging novel cell types, protein targets and efficacy biomarkers in the treatment of diabetic nephropathy. 2014 , 5, 185	1
879	Preparation of a micropatterned rigid-soft composite substrate for probing cellular rigidity sensing. 2014 , 121, 3-15	7
878	The Effect of Exogenous Zinc Concentration on the Responsiveness of MC3T3-E1 Pre-Osteoblasts to Surface Microtopography: Part II (Differentiation). 2014 , 7, 1097-1112	7
877	Tissue extracellular matrix nanoparticle presentation in electrospun nanofibers. 2014 , 2014, 469120	23
876	Recent Advances in 3D Tissue Models. 2014 , 3-41	
875	GEF-H1 controls focal adhesion signaling that regulates mesenchymal stem cell lineage commitment. 2014 , 127, 4186-200	24
874	Enhanced Non-Viral Gene Delivery to Human Embryonic Stem Cells via Small Molecule-Mediated Transient Alteration of Cell Structure. 2014 , 2, 8098-8105	10
873	Molecular mechanisms underlying skeletal growth arrest by cutaneous scarring. 2014 , 66, 223-31	5
872	Osteogenic differentiation on DLC-PDMS-h surface. 2014 , 102, 1462-72	4
871	Three-Dimensional Scaffolds of Carbonized Polyacrylonitrile for Bone Tissue Regeneration. 2014 , 126, 9367-9371	12
870	Cell morphology and focal adhesion location alters internal cell stress. 2014 , 11, 20140885	26
869	Mechanobiology, Tissue Development and Organ Engineering. 2014 , 309-322	2
868	Micro-Scale Patterning of Cells and their Environment. 2014 , 359-384	
867	Substrates with patterned extracellular matrix and subcellular stiffness gradients reveal local biomechanical responses. 2014 , 26, 1242-7	39
866	Precise manipulation of cell behaviors on surfaces for construction of tissue/organs. 2014 , 124, 97-110	12

865	Engineered Cell Manipulation for Biomedical Application. 2014 ,	2
864	Actin stress in cell reprogramming. 2014 , 111, E5252-61	66
863	Topography design concept of a tissue engineering scaffold for controlling cell function and fate through actin cytoskeletal modulation. 2014 , 20, 609-27	43
862	Regulation of plasticity and fibrogenic activity of trabecular meshwork cells by Rho GTPase signaling. 2014 , 229, 927-42	73
861	Deconstructing the Effects of Matrix Elasticity and Geometry in Mesenchymal Stem Cell Lineage Commitment. 2014 , 24, 2396-2403	30
860	Osteogenic differentiation regulated by Rho-kinase in periodontal ligament cells. 2014 , 88, 33-41	13
859	Synergistic effects of matrix nanotopography and stiffness on vascular smooth muscle cell function. 2014 , 20, 2115-26	42
858	Matrix composition and mechanics direct proangiogenic signaling from mesenchymal stem cells. 2014 , 20, 2737-45	81
857	Forms, forces, and stem cell fate. 2014 , 31, 92-7	61
856	Mesenchymal stem cell response to conformal sputter deposited calcium phosphate thin films on nanostructured titanium surfaces. 2014 , 102, 3585-97	17
855	Cell dipole behaviour revealed by ECM sub-cellular geometry. 2014 , 5, 5749	57
854	Stem Cells as Building Blocks. 2014 , 41-55	5
853	Controlling major cellular processes of human mesenchymal stem cells using microwell structures. 2014 , 3, 1991-2003	35
852	Morphological effects on expression of growth differentiation factor 15 (GDF15), a marker of metastasis. 2014 , 229, 362-73	26
851	Switchable substrates for analyzing and engineering cellular functions. 2014 , 9, 406-17	19
850	A dynamic CTCF chromatin binding landscape promotes DNA hydroxymethylation and transcriptional induction of adipocyte differentiation. 2014 , 42, 10943-59	52
849	Chapter 11: Surface Structure of Nanocomposites and Its Properties: A Practical Example. 2014 , 473-515	2
848	Biophysical regulation of hematopoietic stem cells. 2014 , 2, 1548-1561	29

847	Collective cell traction force analysis on aligned smooth muscle cell sheet between three-dimensional microwalls. 2014 , 4, 20130056	9
846	Mechanosensation: a basic cellular process. 2014 , 126, 75-102	20
845	Control of adult stem cell behavior with biomaterials. 2014 , 11, 423-430	14
844	Mechanical cues direct focal adhesion dynamics. 2014 , 126, 103-34	13
843	Microfabrication of a platform to measure and manipulate the mechanics of engineered microtissues. 2014 , 121, 191-211	23
842	Morphology and electrostatics play active role in neuronal differentiation processes on flexible conducting substrates. 2014 , 10, 1-5	12
841	Effects of BMP-2 patterns on bovine chondrocytes adhesion and alignment. 2014 , 29, 1057-1062	0
840	Biomaterials approaches in stem cell mechanobiology. 2014 , 126, 257-78	1
839	Behavior of Bone Marrow Mesenchymal Stem Cells on Collagen Scaffolds in a Dynamic Culture System. 2014 , 997, 20-24	
838	miR-137 controls proliferation and differentiation of human adipose tissue stromal cells. 2014 , 33, 758-68	26
837	Role of actin filaments in correlating nuclear shape and cell spreading. 2014 , 9, e107895	54
836	Biomechanics of TGF β -induced epithelial-mesenchymal transition: implications for fibrosis and cancer. 2014 , 3, 23	93
835	Nanostructured substrate conformation can decrease osteoblast-like cell dysfunction in simulated microgravity conditions. 2014 , 8, 978-88	5
834	Exploring the roles of integrin binding and cytoskeletal reorganization during mesenchymal stem cell mechanotransduction in soft and stiff hydrogels subjected to dynamic compression. 2014 , 38, 174-82	20
833	Measuring stem cell dimensionality in tissue scaffolds. 2014 , 35, 2558-67	44
832	Substrate topography determines the fate of chondrogenesis from human mesenchymal stem cells resulting in specific cartilage phenotype formation. 2014 , 10, 1507-16	85
831	A bioactive elastin-like recombinamer reduces unspecific protein adsorption and enhances cell response on titanium surfaces. 2014 , 114, 225-33	31
830	Role of p38, ERK1/2, focal adhesion kinase, RhoA/ROCK and cytoskeleton in the adipogenesis of human mesenchymal stem cells. 2014 , 117, 624-31	30

829	The effects of titania nanotubes with embedded silver oxide nanoparticles on bacteria and osteoblasts. 2014 , 35, 4223-35	271
828	mTORC2 regulates mechanically induced cytoskeletal reorganization and lineage selection in marrow-derived mesenchymal stem cells. 2014 , 29, 78-89	102
827	Multiscale relationships between fibronectin structure and functional properties. 2014 , 10, 1524-31	30
826	Comparison of cell-loading methods in hydrogel systems. 2014 , 102, 935-46	5
825	Evaluation of mechanical properties of human mesenchymal stem cells during differentiation to smooth muscle cells. 2014 , 42, 1373-80	19
824	Osteoblast-adipocyte lineage plasticity in tissue development, maintenance and pathology. 2014 , 71, 493-7	52
823	The simulated microgravity enhances multipotential differentiation capacity of bone marrow mesenchymal stem cells. 2014 , 66, 119-31	17
822	A microfabricated, optically accessible device to study the effects of mechanical cues on collagen fiber organization. 2014 , 16, 255-67	4
821	Integrin signaling in skeletal development and function. 2014 , 102, 13-36	32
820	Cartilage tissue engineering: molecular control of chondrocyte differentiation for proper cartilage matrix reconstruction. 2014 , 1840, 2414-40	155
819	Is graphene a promising nano-material for promoting surface modification of implants or scaffold materials in bone tissue engineering?. 2014 , 20, 477-91	81
818	Role of extracellular matrix signaling cues in modulating cell fate commitment for cardiovascular tissue engineering. 2014 , 3, 628-41	51
817	Mechanical memory and dosing influence stem cell fate. 2014 , 13, 645-52	727
816	Polyelectrolyte hydrogels for replacement and regeneration of biological tissues. 2014 , 22, 227-235	29
815	Stem cells in a three-dimensional scaffold environment. 2014 , 3, 80	66
814	Differentiation of human mesenchymal stem cells on plasma-treated polyetheretherketone. 2014 , 25, 515-25	55
813	Stem cell bioprocess engineering towards cGMP production and clinical applications. 2014 , 66, 709-22	26
812	Biophysically defined and cytocompatible covalently adaptable networks as viscoelastic 3D cell culture systems. 2014 , 26, 865-72	265

811	A review of microfabrication and hydrogel engineering for micro-organs on chips. 2014 , 35, 1816-32	166
810	Integrated micro/nanoengineered functional biomaterials for cell mechanics and mechanobiology: a materials perspective. 2014 , 26, 1494-533	109
809	The size of surface microstructures as an osteogenic factor in calcium phosphate ceramics. 2014 , 10, 3254-63	103
808	Production of a composite hyaluronic acid/gelatin blood plasma gel for hydrogel-based adipose tissue engineering applications. 2014 , 102, 2220-9	19
807	HYDROGEL-BASED NANOCOMPOSITES OF THERAPEUTIC PROTEINS FOR TISSUE REPAIR. 2014 , 4, 128-136	3
806	Bioengineering approaches to guide stem cell-based organogenesis. 2014 , 141, 1794-804	100
805	Composite hydrogel scaffolds incorporating decellularized adipose tissue for soft tissue engineering with adipose-derived stem cells. 2014 , 35, 1914-23	134
804	Spatial control of adult stem cell fate using nanotopographic cues. 2014 , 35, 2401-2410	100
803	Harnessing nanotopography and integrin-matrix interactions to influence stem cell fate. 2014 , 13, 558-69	736
802	Stem cell differentiation: sticky mechanical memory. 2014 , 13, 542-3	13
801	Topographical control of multiple cell adhesion molecules for traction force microscopy. 2014 , 6, 357-65	19
800	Materials as stem cell regulators. 2014 , 13, 547-57	677
799	A global assessment of stem cell engineering. 2014 , 20, 2575-89	5
798	Dynamic Materials Mimic Developmental and Disease Changes in Tissues. 2014 , 25-43	
797	Cellular Responses to Bio-Inspired Engineered Topography. 2014 , 77-97	2
796	The synergetic effect of hydrogel stiffness and growth factor on osteogenic differentiation. 2014 , 35, 5294-5306	83
795	Hydrogels with differential and patterned mechanics to study stiffness-mediated myofibroblastic differentiation of hepatic stellate cells. 2014 , 38, 198-208	70
794	Controlling cell geometry on substrates of variable stiffness can tune the degree of osteogenesis in human mesenchymal stem cells. 2014 , 38, 209-18	59

793	Culturing of mouse and human cells on soft substrates promote the expression of stem cell markers. 2014 , 117, 749-55	28
792	Electrospun microcrimped fibers with nonlinear mechanical properties enhance ligament fibroblast phenotype. 2014 , 6, 035008	26
791	Hypoxia enhances chondrogenic differentiation of human adipose tissue-derived stromal cells in scaffold-free and scaffold systems. 2014 , 355, 89-102	18
790	Integral role of platelet-derived growth factor in mediating transforming growth factor- β -dependent mesenchymal stem cell stiffening. 2014 , 23, 245-61	18
789	Chemically regulated bioactive ion delivery platform on a titanium surface for sustained controlled release. 2014 , 2, 283-294	31
788	Poly(vinyl alcohol)-micropatterned surfaces for manipulation of mesenchymal stem cell functions. 2014 , 119, 17-33	5
787	Stereomask lithography for multi-protein patterning. 2014 , 119, 175-92	2
786	Micromechanical Design Criteria for Tissue-Engineering Biomaterials. 2020 , 1335-1350	
785	Exosomes Enhance Adhesion and Osteogenic Differentiation of Initial Bone Marrow Stem Cells on Titanium Surfaces. 2020 , 8, 583234	5
784	Mechanotransduction and Adrenergic Stimulation in Arrhythmogenic Cardiomyopathy: An Overview of and Models. 2020 , 11, 568535	1
783	The Research Advance of Cell Bridges. 2020 , 8, 609317	
782	Aqueous extract of <i>Arctium lappa</i> L. root (burdock) enhances chondrogenesis in human bone marrow-derived mesenchymal stem cells. 2020 , 20, 364	1
781	The Fabrication and Function of Strontium-modified Hierarchical Micro/Nano Titanium Implant. 2020 , 15, 8983-8998	8
780	On the correlation between material-induced cell shape and phenotypical response of human mesenchymal stem cells. 2020 , 10, 18988	9
779	Effects of nanofibers on mesenchymal stem cells: environmental factors affecting cell adhesion and osteogenic differentiation and their mechanisms. 2020 , 21, 871-884	7
778	Fabrication of tough, anisotropic, chemical-crosslinker-free poly(vinyl alcohol) nanofibrous cryogels electrospinning.. 2020 , 10, 38045-38054	6
777	G Protein-Coupled Estrogen Receptor Regulates Actin Cytoskeleton Dynamics to Impair Cell Polarization. 2020 , 8, 592628	3
776	Hydrogel Properties May Influence Mesenchymal Stem Cell Lineage Progression Through Modulating GAPDH Activity. 2020 , 1	1

775	Mechanotransduction and Stiffness-Sensing: Mechanisms and Opportunities to Control Multiple Molecular Aspects of Cell Phenotype as a Design Cornerstone of Cell-Instructive Biomaterials for Articular Cartilage Repair. 2020 , 21,	19
774	Cell shape: effects on gene expression and signaling. 2020 , 12, 895-901	10
773	Effect of microenvironment on adhesion and differentiation of murine C3H10T1/2 cells cultured on multilayers containing collagen I and glycosaminoglycans. 2020 , 11, 2041731420940560	9
772	Controlling osteoblast morphology and proliferation via surface micro-topographies of implant biomaterials. 2020 , 10, 12810	30
771	Review: Dielectrophoresis in cell characterization. 2020 , 41, 1915-1930	11
770	Osteogenic and Adipogenic Differentiation of Mesenchymal Stem Cells in Gelatin Solutions of Different Viscosities. 2020 , 9, e2000617	6
769	The Janus Role of Adhesion in Chondrogenesis. 2020 , 21,	1
768	Mechanical interplay between cell shape and actin cytoskeleton organization. 2020 , 16, 6328-6343	13
767	Cytoskeleton stiffness regulates cellular senescence and innate immune response in Hutchinson-Gilford Progeria Syndrome. 2020 , 19, e13152	16
766	Deciphering, Designing, and Realizing Self-Folding Biomimetic Microstructures Using a Mass-Spring Model and Inkjet-Printed, Self-Folding Hydrogels. 2020 , 30, 2003959	4
765	Mechanically induced formation and maturation of 3D-matrix adhesions (3DMAs) in human mesenchymal stem cells. 2020 , 258, 120292	8
764	Mechanotransduction is a context-dependent activator of TGF- β signaling in mesenchymal stem cells. 2020 , 259, 120331	8
763	Gene Expression Regulation and Secretory Activity of Mesenchymal Stem Cells upon In Vitro Contact with Microarc Calcium Phosphate Coating. 2020 , 21,	3
762	Microtubules control nuclear shape and gene expression during early stages of hematopoietic differentiation. 2020 , 39, e103957	18
761	Developmentally-Inspired Biomimetic Culture Models to Produce Functional Islet-Like Cells From Pluripotent Precursors. 2020 , 8, 583970	4
760	Hydrogels: The Next Generation Body Materials for Microfluidic Chips?. 2020 , 16, e2003797	22
759	RASSF1A inhibits PDGFB-driven malignant phenotypes of nasopharyngeal carcinoma cells in a YAP1-dependent manner. 2020 , 11, 855	8
758	Cell shape regulates subcellular organelle location to control early Ca signal dynamics in vascular smooth muscle cells. 2020 , 10, 17866	5

757	Topography: A Biophysical Approach to Direct the Fate of Mesenchymal Stem Cells in Tissue Engineering Applications. 2020 , 10,	27
756	Elliptical supra-cellular topographies regulate stem cells migratory pattern and osteogenic differentiation. 2020 , 14, 100870	3
755	Actin contributes to open chromatin for activation of the adipogenic pioneer factor CEBPA during transcriptional reprogramming. 2020 , 31, 2511-2521	9
754	ZnO/Nanocarbons-Modified Fibrous Scaffolds for Stem Cell-Based Osteogenic Differentiation. 2020 , 16, e2003010	28
753	The Intersection of Mechanotransduction and Regenerative Osteogenic Materials. 2020 , 9, e2000709	5
752	Fattening chips: hypertrophy, feeding, and fasting of human white adipocytes. 2020 , 20, 4152-4165	4
751	Doxorubicin hydrochloride loaded nanotextured films as a novel drug delivery platform for ovarian cancer treatment. 2020 , 25, 1289-1301	1
750	Mechanical force modulates periodontal ligament stem cell characteristics during bone remodelling via TRPV4. 2020 , 53, e12912	9
749	Nanomaterial-based scaffolds for bone tissue engineering and regeneration. 2020 , 15, 1995-2017	15
748	Bone-Marrow-Derived Mesenchymal Stromal Cells: From Basic Biology to Applications in Bone Tissue Engineering and Bone Regeneration. 2020 , 139-192	2
747	Sperm under Simulated Microgravity and a Hypomagnetic Field: Motility and Cell Respiration. 2020 , 21,	3
746	Molecular Mechanism of Stem Cell Differentiation into Adipocytes and Adipocyte Differentiation of Malignant Tumor. 2020 , 2020, 8892300	8
745	Mesenchymal Stem Cells Adaptively Respond to Environmental Cues Thereby Improving Granulation Tissue Formation and Wound Healing. 2020 , 8, 697	19
744	Early Committed Clockwise Cell Chirality Upregulates Adipogenic Differentiation of Mesenchymal Stem Cells. 2020 , 4, e2000161	1
743	NuSeT: A deep learning tool for reliably separating and analyzing crowded cells. 2020 , 16, e1008193	29
742	Strain-induced Differentiation of Mesenchymal Stem Cells. 2020 , 2020, 2239-2244	
741	Morphology and differentiation of human mesenchymal stem cells cultured on a nanoscale structured substrate. 2020 , 103, 23-28	0
740	Verteporfin treatment controls morphology, phenotype, and global gene expression for cells of the human nucleus pulposus. 2020 , 3, e1111	2

739	Low-Intensity Pulsed Ultrasound Modulates RhoA/ROCK Signaling of Rat Mandibular Bone Marrow Mesenchymal Stem Cells to Rescue Their Damaged Cytoskeletal Organization and Cell Biological Function Induced by Radiation. 2020 , 2020, 8863577	4
738	Effect of the 3D Artificial Nichoid on the Morphology and Mechanobiological Response of Mesenchymal Stem Cells Cultured In Vitro. 2020 , 9,	11
737	Reengineering Bone-Implant Interfaces for Improved Mechanotransduction and Clinical Outcomes. 2020 , 16, 1121-1138	5
736	Stem Cell Mechanobiology and the Role of Biomaterials in Governing Mechanotransduction and Matrix Production for Tissue Regeneration. 2020 , 8, 597661	16
735	Borax induces osteogenesis by stimulating NaBC1 transporter via activation of BMP pathway. 2020 , 3, 717	3
734	Mechanical Stimulation: A Crucial Element of Organ-on-Chip Models. 2020 , 8, 602646	28
733	Molecular Regulators of Cellular Mechanoadaptation at Cell-Material Interfaces. 2020 , 8, 608569	5
732	Non-Canonical Functions of the Gamma-Tubulin Meshwork in the Regulation of the Nuclear Architecture. 2020 , 12,	3
731	Endomembranes: Unsung Heroes of Mechanobiology?. 2020 , 8, 597721	2
730	Cells Involved in Mechanotransduction Including Mesenchymal Stem Cells. 2020 , 311-332	1
729	Ultrafast Laser Processing of Nanostructured Patterns for the Control of Cell Adhesion and Migration on Titanium Alloy. 2020 , 10,	15
728	Directional Osteo-Differentiation Effect of hADSCs on Nanotopographical Self-Assembled Polystyrene Nanopit Surfaces. 2020 , 15, 3281-3290	4
727	Photoactive Interfaces for Spatio-Temporal Guidance of Mesenchymal Stem Cell Fate. 2020 , 9, e2000470	10
726	Main-Chain Liquid Crystalline Hydrogels that Support 3D Stem Cell Culture. 2020 , 21, 2365-2375	1
725	Nanoparticles as Versatile Tools for Mechanotransduction in Tissues and Organoids. 2020 , 8, 240	10
724	In-Vitro-Generated Hypertrophic-Like Adipocytes Displaying Isoforms Unbalance Recapitulate Adipocyte Dysfunctions In Vivo. 2020 , 9,	4
723	Crucial Role of Lamin A/C in the Migration and Differentiation of MSCs in Bone. 2020 , 9,	11
722	Angiomotin links ROCK and YAP signaling in mechanosensitive differentiation of neural stem cells. 2020 , 31, 386-396	15

721	The mevalonate pathway is a crucial regulator of tendon cell specification. 2020 , 147,	4
720	Assembly of lung progenitors into developmentally-inspired geometry drives differentiation via cellular tension. 2020 , 254, 120128	7
719	Mechanosensing of Mechanical Confinement by Mesenchymal-Like Cells. 2020 , 11, 365	6
718	Unraveling Myelin Plasticity. 2020 , 14, 156	13
717	Ligand Diffusion Enables Force-Independent Cell Adhesion via Activating β_1 Integrin and Initiating Rac and RhoA Signaling. 2020 , 32, e2002566	26
716	Yes-associated protein and transcriptional coactivator with PDZ-binding motif as new targets in cardiovascular diseases. 2020 , 159, 105009	7
715	Preparation of Tunable Extracellular Matrix Microenvironments to Evaluate Schwann Cell Phenotype Specification. 2020 ,	2
714	Syndecan-1 Facilitates the Human Mesenchymal Stem Cell Osteo-Adipogenic Balance. 2020 , 21,	3
713	Effect of substrate topography on the regulation of human corneal stromal cells. 2020 , 190, 110971	13
712	The Mechanical Properties, Secondary Structure, and Osteogenic Activity of Photopolymerized Fibroin. 2020 , 12,	2
711	Compaction Dynamics during Progenitor Cell Self-Assembly Reveal Granular Mechanics. 2020 , 2, 1283-1295	4
710	Optimization of 3D hydrogel microenvironment for enhanced hepatic functionality of primary human hepatocytes. 2020 , 117, 1864-1876	4
709	Scalable Generation of Mesenchymal Stem Cells and Adipocytes from Human Pluripotent Stem Cells. 2020 , 9,	9
708	Effects of macropore size in carbonate apatite honeycomb scaffolds on bone regeneration. 2020 , 111, 110848	28
707	Biomimetic mineralizable collagen hydrogels for dynamic bone matrix formation to promote osteogenesis. 2020 , 8, 3064-3075	12
706	Platform Effects on Regeneration by Pulmonary Basal Cells as Evaluated by Single-Cell RNA Sequencing. 2020 , 30, 4250-4265.e6	17
705	Matrix stiffness-regulated cellular functions under different dimensionalities. 2020 , 8, 2734-2755	16
704	Isolation and Culture of Human Mature Adipocytes Using Membrane Mature Adipocyte Aggregate Cultures (MAAC). 2020 ,	2

703	The impact of altered mechanobiology on aortic valve pathophysiology. 2020 , 691, 108463	3
702	SRF-MRTF signaling suppresses brown adipocyte development by modulating TGF- β /BMP pathway. 2020 , 515, 110920	5
701	Influence of Microenvironment on Mesenchymal Stem Cell Therapeutic Potency: From Planar Culture to Microcarriers. 2020 , 8, 640	31
700	Ca substitution of Sr in Sr-doped TiO ₂ nanotube film on Ti surface for enhanced osteogenic activity. 2020 , 528, 147055	11
699	Osteogenic activity of Na ₂ Ti ₃ O ₇ /SrTiO ₃ hybrid coatings on titanium. 2020 , 398, 126090	0
698	Control of Fibroblast shape in sequentially formed 3D hybrid hydrogels regulates cellular responses to microenvironmental cues. 2020 , 12,	11
697	YAP Non-cell-autonomously Promotes Pluripotency Induction in Mouse Cells. 2020 , 14, 730-743	6
696	Cells and Surfaces in Vitro. 2020 , 661-681	2
695	Surface modification of polymeric electrospun scaffolds via a potent and high-affinity integrin $\alpha 1$ ligand improved the adhesion, spreading and survival of human chorionic villus-derived mesenchymal stem cells: a new insight for fetal tissue engineering. 2020 , 8, 1649-1659	10
694	Feeling Things Out: Bidirectional Signaling of the Cell-ECM Interface, Implications in the Mechanobiology of Cell Spreading, Migration, Proliferation, and Differentiation. 2020 , 9, e1901445	35
693	Microfluidics for the study of mechanotransduction. 2020 , 53,	11
692	Scaffold-Free tissue engineering with aligned bone marrow stromal cell sheets to recapitulate the microstructural and biochemical composition of annulus fibrosus. 2020 , 107, 129-137	8
691	Effect of scaffold properties on adhesion and maintenance of boundary cap neural crest stem cells in vitro. 2020 , 108, 1274-1280	7
690	Mobility Tuning of Polyrotaxane Surfaces to Stimulate Myocyte Differentiation. 2020 , 20, e1900424	10
689	Mechanical Strain Promotes Proliferation of Adipose-Derived Stem Cells Through the Integrin $\beta 1$ -Mediated RhoA/Myosin Light Chain Pathway. 2020 , 26, 939-952	4
688	Dimensionality changes actin network through lamin A/C and zyxin. 2020 , 240, 119854	7
687	Label-free separation of mesenchymal stem cell subpopulations with distinct differentiation potencies and paracrine effects. 2020 , 240, 119881	9
686	Targeting the cytoskeleton to direct pancreatic differentiation of human pluripotent stem cells. 2020 , 38, 460-470	97

685	Tissue mechanics drives regeneration of a mucociliated epidermis on the surface of <i>Xenopus</i> embryonic aggregates. 2020 , 11, 665	8
684	Quantitative Bioimage Analysis of Passaging Effect on the Migratory Behavior of Human Mesenchymal Stem Cells During Spheroid Formation. 2020 , 97, 394-406	2
683	Cell seeding simulation on micropatterned islands shows cell density depends on area to perimeter ratio, not on island size or shape. 2020 , 107, 152-163	4
682	Three-Dimensional Spheroid Culture on Polymer-Coated Surface Potentiate Stem Cell Functions via Enhanced Cell-Extracellular Matrix Interactions. 2020 , 6, 2240-2250	5
681	Effects of scaffold geometry on chondrogenic differentiation of adipose-derived stem cells. 2020 , 110, 110733	11
680	ROCK-TAZ signaling axis regulates mechanical tension-induced osteogenic differentiation of rat cranial sagittal suture mesenchymal stem cells. 2020 , 235, 5972-5984	8
679	Enhanced osteogenic differentiation of human mesenchymal stromal cells as response to periodical microstructured Ti6Al4V surfaces. 2020 , 108, 2218-2226	4
678	Dysfunctional Mechanotransduction through the YAP/TAZ/Hippo Pathway as a Feature of Chronic Disease. 2020 , 9,	13
677	Stochastic fluctuation-induced cell polarization on elastic substrates: A cytoskeleton-based mechanical model. 2020 , 137, 103872	11
676	Piezoelectric Scaffolds as Smart Materials for Neural Tissue Engineering. 2020 , 12,	39
675	Enhanced osteogenic differentiation of osteoblasts on CaTiO nanotube film. 2020 , 187, 110773	8
674	Characterization of cell signaling, morphology, and differentiation potential of human mesenchymal stem cells based on cell adhesion mechanism. 2020 , 235, 6915-6928	7
673	Stiffness and topography of biomaterials dictate cell-matrix interaction in musculoskeletal cells at the bio-interface: A concise progress review. 2020 , 108, 2426-2440	5
672	ECatenin Preserves the Stem State of Murine Bone Marrow Stromal Cells Through Activation of EZH2. 2020 , 35, 1149-1162	22
671	Spreading area and shape regulate the apoptosis and osteogenesis of mesenchymal stem cells on circular and branched micropatterned islands. 2020 , 108, 2080-2089	5
670	Decoupling the effects of nanopore size and surface roughness on the attachment, spreading and differentiation of bone marrow-derived stem cells. 2020 , 248, 120014	27
669	Embryonic stem cells as a cell source for tissue engineering. 2020 , 467-490	5
668	Body-on-a-chip: three-dimensional engineered tissue models. 2020 , 1443-1458	1

667	Conformable hyaluronic acid hydrogel delivers adipose-derived stem cells and promotes regeneration of burn injury. 2020 , 108, 56-66	33
666	Influence of the mechanical properties of biomaterials on degradability, cell behaviors and signaling pathways: current progress and challenges. 2020 , 8, 2714-2733	59
665	Composition and Mechanism of Three-Dimensional Hydrogel System in Regulating Stem Cell Fate. 2020 , 26, 498-518	9
664	Molecular Events Controlling Cessation of Trunk Neural Crest Migration and Onset of Differentiation. 2020 , 8, 199	3
663	Biological Effects of Polyrotaxane Surfaces on Cellular Responses of Fibroblast, Preosteoblast and Preadipocyte Cell Lines. 2020 , 12,	5
662	Cell-Cell Adhesion-Driven Contact Guidance and Its Effect on Human Mesenchymal Stem Cell Differentiation. 2020 , 12, 22399-22409	5
661	Butein Promotes Lineage Commitment of Bone Marrow-Derived Stem Cells into Osteoblasts via Modulating ERK1/2 Signaling Pathways. 2020 , 25,	7
660	Gelatin-Based Microribbon Hydrogels Support Robust MSC Osteogenesis across a Broad Range of Stiffness. 2020 , 6, 3454-3463	3
659	When Stiffness Matters: Mechanosensing in Heart Development and Disease. 2020 , 8, 334	28
658	Collagen Stiffness and Architecture Regulate Fibrotic Gene Expression in Engineered Adipose Tissue. 2020 , 4, e1900286	11
657	Bioanalysis in single cells: current advances and challenges. 2020 , 63, 564-588	5
656	Utilizing Osteocyte Derived Factors to Enhance Cell Viability and Osteogenic Matrix Deposition within IPN Hydrogels. 2020 , 13,	5
655	In Vitro Bioactivity and Biocompatibility of Bio-Inspired Ti-6Al-4V Alloy Surfaces Modified by Combined Laser Micro/Nano Structuring. 2020 , 25,	9
654	Screening as a strategy to drive regenerative medicine research. 2021 , 190, 80-95	4
653	Fluorescence-based actin turnover dynamics of stem cells as a profiling method for stem cell functional evolution, heterogeneity and phenotypic lineage parsing. 2021 , 190, 44-54	0
652	Remote Tuning of Built-In Magnetoelectric Microenvironment to Promote Bone Regeneration by Modulating Cellular Exposure to Arginylglycylaspartic Acid Peptide. 2021 , 31, 2006226	10
651	Understanding the cellular responses based on low-density electrospun fiber networks. 2021 , 119, 111470	7
650	Microfabricated Gaps Reveal the Effect of Geometrical Control in Wound Healing. 2021 , 10, e2000630	7

649	Materials control of the epigenetics underlying cell plasticity. 2021 , 6, 69-83	21
648	Spatiotemporal histological changes observed in mouse subcutaneous tissues during the foreign body reaction to silicone. 2021 , 109, 1220-1231	5
647	Spatial organization and crosstalk of vimentin and actin stress fibers regulate the osteogenic differentiation of human adipose-derived stem cells. 2021 , 35, e21175	4
646	Crosstalk between mechanotransduction and metabolism. 2021 , 22, 22-38	69
645	Transduction of cell and matrix geometric cues by the actin cytoskeleton. 2021 , 68, 64-71	5
644	Membrane Tension Gates ERK-Mediated Regulation of Pluripotent Cell Fate. 2021 , 28, 273-284.e6	29
643	The role of microRNAs in bone development. 2021 , 143, 115760	12
642	Alginate-Based Bioinks for 3D Bioprinting and Fabrication of Anatomically Accurate Bone Grafts. 2021 , 27, 1168-1181	3
641	A bilayered scaffold with segregated hydrophilicity-hydrophobicity enables reconstruction of goat hierarchical temporomandibular joint condyle cartilage. 2021 , 121, 288-302	4
640	Steering cell behavior through mechanobiology in 3D: A regenerative medicine perspective. 2021 , 268, 120572	17
639	Stem-cell-based embryo models for fundamental research and translation. 2021 , 20, 132-144	34
638	Sensory nerves in the spotlight of the stem cell niche. 2021 , 10, 346-356	5
637	3-D macro/microporous-nanofibrous bacterial cellulose scaffolds seeded with BMP-2 preconditioned mesenchymal stem cells exhibit remarkable potential for bone tissue engineering. 2021 , 167, 934-946	10
636	A 3D human adipose tissue model within a microfluidic device. 2021 , 21, 435-446	10
635	Role of RhoA-ROCK signaling in Parkinson's disease. 2021 , 894, 173815	7
634	Transfer of printed electronic structures using graphene oxide and gelatin enables reversible and biocompatible interface with living cells. 2021 , 120, 111685	1
633	The Effect of Physical Cues of Biomaterial Scaffolds on Stem Cell Behavior. 2021 , 10, e2001244	12
632	Targeting transforming growth factor- β signaling for enhanced cancer chemotherapy. 2021 , 11, 1345-1363	16

631	Biomimetic mineralized microenvironment stiffness regulated BMSCs osteogenic differentiation through cytoskeleton mediated mechanical signaling transduction. 2021 , 119, 111613	5
630	YAP-TEAD1 control of cytoskeleton dynamics and intracellular tension guides human pluripotent stem cell mesoderm specification. 2021 , 28, 1193-1207	8
629	Molecular Control of Interfacial Fibronectin Structure on Graphene Oxide Steers Cell Fate. 2021 , 13, 2346-2359	6
628	E7-Modified Substrates to Promote Adhesion and Maintain Stemness of Mesenchymal Stem Cells. 2021 , 21, e2000384	0
627	Introduction to 3D Cell Culture. 2021 , 1-26	1
626	Synergy of molecularly mobile polyrotaxane surfaces with endothelial cell co-culture for mesenchymal stem cell mineralization.. 2021 , 11, 18685-18692	
625	Scalable expansion of human pluripotent stem cells for biomanufacturing cellular therapeutics. 2021 , 289-308	1
624	Biomechanical Regulation of Stem Cell Fate. 2021 , 7, 30-38	
623	Effect of Mechanical Strain on Cells Involved in Fracture Healing. 2021 , 13, 369-375	0
622	3D printed microfluidic devices: a review focused on four fundamental manufacturing approaches and implications on the field of healthcare. 2021 , 4, 311-343	23
621	Effect of metal ions on the physical properties of multilayers from hyaluronan and chitosan, and the adhesion, growth and adipogenic differentiation of multipotent mouse fibroblasts. 2021 , 17, 8394-8410	1
620	Inactivation Alters Subcutaneous Tissues in Progression to Heterotopic Ossification. 2021 , 12, 633206	1
619	Immobilization osteoporosis. 2021 , 991-1032	0
618	Bibliography. 2021 , 133-137	
617	Chapter 12:Bioinspired and Bioinstructive Surfaces to Control Mesenchymal Stem Cells. 2021 , 301-325	
616	Transcriptional activators YAP/TAZ and AXL orchestrate dedifferentiation, cell fate, and metastasis in human osteosarcoma. 2021 , 28, 1325-1338	5
615	Shc and the Control of Small GTPase Dynamics in Cellular Anchorage. 2021 , 69-94	
614	Material cytoskeleton crosstalk. 2021 , 65-112	

613	Biomaterials for Recruiting and Activating Endogenous Stem Cells in Tissue Regeneration.	
612	Global transcriptomic analysis reveals Lnc-ADAMTS9 exerting an essential role in myogenesis through modulating the ERK signaling pathway. 2021 , 12, 4	0
611	Biomimetic Culture Strategies for the Clinical Expansion of Mesenchymal Stromal Cells. 2021 ,	1
610	Equine Tenocyte Seeding on Gelatin Hydrogels Improves Elongated Morphology. 2021 , 13,	1
609	Hyaluronic Acid Hydrogel with Adjustable Stiffness for Mesenchymal Stem Cell 3D Culture via Related Molecular Mechanisms to Maintain Stemness and Induce Cartilage Differentiation.. 2021 , 4, 2601-2613	7
608	A Biomimetic Biphasic Scaffold Consisting of Decellularized Cartilage and Decalcified Bone Matrixes for Osteochondral Defect Repair. 2021 , 9, 639006	6
607	Fluid shear stress generates a unique signaling response by activating multiple TGF β family type I receptors in osteocytes. 2021 , 35, e21263	8
606	The combined influence of viscoelasticity and adhesive cues on fibroblast spreading and focal adhesion formation.	0
605	The Diameter Factor of Aligned Membranes Facilitates Cutaneous Wound Healing by Promoting Epithelialization in an Immune Way.	
604	The Role and Activation Mechanism of TAZ in Hierarchical Microgroove/Nanopore Topography-Mediated Regulation of Stem Cell Differentiation. 2021 , 16, 1021-1036	5
603	Magnetic Nanocomposite Hydrogels for Directing Myofibroblast Activity in Adipose-Derived Stem Cells. 2021 , 1, 2000072	2
602	Multiple Myeloma Bone Disease: Implication of MicroRNAs in Its Molecular Background. 2021 , 22,	12
601	The use of nanovibration to discover specific and potent bioactive metabolites that stimulate osteogenic differentiation in mesenchymal stem cells. 2021 , 7,	10
600	Engineered Peptide-Functionalized Hydrogels Modulate the RNA Transcriptome of Human Nucleus Pulposus Cells In Vitro.	0
599	Bioactive potential of natural biomaterials: identification, retention and assessment of biological properties. 2021 , 6, 122	30
598	Trends in Articular Cartilage Tissue Engineering: 3D Mesenchymal Stem Cell Sheets as Candidates for Engineered Hyaline-Like Cartilage. 2021 , 10,	11
597	Differentiation of mesenchymal stem cells using metal oxide thin films. 2021 , 54, 235402	
596	Self-Assembling Hydrogel Structures for Neural Tissue Repair. 2021 , 7, 4136-4163	8

595	Cell morphology and mechanosensing can be decoupled in fibrous microenvironments and identified using artificial neural networks. 2021 , 11, 5950	4
594	Mechanically Activated Extracellular Vesicle Functionalised Melt Electrowritten Materials for Bone Regeneration: A Mechano-Biomimetic Scaffold.	
593	Force sensors for measuring microenvironmental forces during mesenchymal condensation. 2021 , 270, 120684	2
592	High-Throughput Methods in the Discovery and Study of Biomaterials and Materiobiology. 2021 , 121, 4561-4677	45
591	Surface-directed engineering of tissue anisotropy in microphysiological models of musculoskeletal tissue. 2021 , 7,	12
590	Construction and characterization of degradable fish scales for enhancing cellular adhesion and potential using as tissue engineering scaffolds. 2021 , 122, 111919	1
589	Restoring Tissue Homeostasis at Metastatic Sites: A Focus on Extracellular Vesicles in Bone Metastasis. 2021 , 11, 644109	2
588	Osteoclast-derived small extracellular vesicles induce osteogenic differentiation via inhibiting ARHGAP1. 2021 , 23, 1191-1203	7
587	0.5-Gy X-ray irradiation induces reorganization of cytoskeleton and differentiation of osteoblasts. 2021 , 23,	0
586	Biophysical and Biochemical Cues of Biomaterials Guide Mesenchymal Stem Cell Behaviors. 2021 , 9, 640388	14
585	3D-printed gelatin methacrylate (GelMA)/silanated silica scaffold assisted by two-stage cooling system for hard tissue regeneration. 2021 , 8, rbab001	5
584	Mechanistic Insight into Orthodontic Tooth Movement Based on Animal Studies: A Critical Review. 2021 , 10,	7
583	Electrochemical imaging of contact boundary by using electron-beam addressing of a virtual cathode display. 2021 , 333, 129558	0
582	Scaffolds from Self-Assembling Tetrapeptides Support 3D Spreading, Osteogenic Differentiation, and Angiogenesis of Mesenchymal Stem Cells. 2021 , 22, 2094-2106	8
581	Neural priming of adipose-derived stem cells by cell-imprinted substrates. 2021 , 13,	2
580	Rejuvenation of extensively passaged human chondrocytes to engineer functional articular cartilage. 2021 ,	5
579	A Roadmap of In Vitro Models in Osteoarthritis: A Focus on Their Biological Relevance in Regenerative Medicine. 2021 , 10,	5
578	Effect of Dual Pore Size Architecture on In Vitro Osteogenic Differentiation in Additively Manufactured Hierarchical Scaffolds. 2021 , 7, 2615-2626	1

577	Nidogen: A matrix protein with potential roles in musculoskeletal tissue regeneration. 2021 ,	0
576	Actin polymerization state regulates osteogenic differentiation in human adipose-derived stem cells. 2021 , 26, 15	4
575	Geometrically defined environments direct cell division rate and subcellular YAP localization in single mouse embryonic stem cells. 2021 , 11, 9269	3
574	Dynamic Tuning of Viscoelastic Hydrogels with Carbonyl Iron Microparticles Reveals the Rapid Response of Cells to Three-Dimensional Substrate Mechanics. 2021 , 13, 20947-20959	7
573	Bioactive micropatterned platform to engineer myotube-like cells from stem cells. 2020 ,	
572	LINC complex regulation of genome organization and function. 2021 , 67, 130-141	10
571	Surface characterization and biocompatibility of isotropic microstructure prepared by UV laser. 2021 , 94, 136-136	3
570	Cytoskeletal prestress: The cellular hallmark in mechanobiology and mechanomedicine. 2021 , 78, 249-276	10
569	3D confinement regulates stem cell fate.	
568	The effects of locomotion on bone marrow mesenchymal stem cell fate: insight into mechanical regulation and bone formation. 2021 , 11, 88	1
567	Exploration of possible cell chirality using material techniques of surface patterning. 2021 , 126, 92-108	12
566	Polydioxanone-Based Membranes for Bone Regeneration. 2021 , 13,	5
565	Mesenchymal stem cells: a brief review of classic concepts and new factors of osteogenic differentiation. 2021 , 23, 207-222	
564	Gentamicin-Releasing Titania Nanotube Surfaces Inhibit Bacteria and Support Adipose-Derived Stem Cell Growth in Cocultures.. 2021 , 4, 4936-4945	1
563	Multiwell Combinatorial Hydrogel Array for High-Throughput Analysis of Cell-ECM Interactions. 2021 , 7, 2453-2465	0
562	Regulation and mechanism of YAP/TAZ in the mechanical microenvironment of stem cells (Review). 2021 , 24,	4
561	Protein Kinase C Activation Drives a Differentiation Program in an Oligodendroglial Precursor Model through the Modulation of Specific Biological Networks. 2021 , 22,	2
560	Expanding Biomaterial Surface Topographical Design Space through Natural Surface Reproduction. 2021 , 33, e2102084	8

559	Engineering 3D Vascularized Adipose Tissue Construct using a Decellularized Lung Matrix.	
558	Peptidic biofunctionalization of laser patterned dental zirconia: A biochemical-topographical approach. 2021 , 125, 112096	4
557	Supramolecular Click Product Interactions Induce Dynamic Stiffening of Extracellular Matrix-Mimetic Hydrogels. 2021 , 22, 3040-3048	1
556	Synergistic Effect of Surface Chemistry and Surface Topography Gradient on Osteogenic/Adipogenic Differentiation of hMSCs. 2021 , 13, 30306-30316	1
555	Characterization of heterogeneous primary human cartilage-derived cell population using non-invasive live-cell phase-contrast time-lapse imaging. 2021 , 23, 488-499	2
554	Diamond in the Rough: Toward Improved Materials for the Bone-Implant Interface. 2021 , 10, e2100007	6
553	Silk Hydrogel Substrate Stress Relaxation Primes Mesenchymal Stem Cell Behavior in 2D. 2021 , 13, 30420-30433	1
552	Loss of KDM4B exacerbates bone-fat imbalance and mesenchymal stromal cell exhaustion in skeletal aging. 2021 , 28, 1057-1073.e7	16
551	FOXO3 Mediates Tooth Movement by Regulating Force-Induced Osteogenesis. 2021 , 220345211021534	1
550	Mechanical compartmentalization of the intestinal organoid enables crypt folding and collective cell migration. 2021 , 23, 745-757	26
549	The Combined Influence of Viscoelastic and Adhesive Cues on Fibroblast Spreading and Focal Adhesion Organization. 2021 , 14, 427-440	4
548	Extracellular Vesicle Functionalized Melt Electrowritten Scaffolds for Bone Tissue Engineering. 2021 , 1, 2100037	1
547	3D-Printed Gelatin Methacrylate Scaffolds with Controlled Architecture and Stiffness Modulate the Fibroblast Phenotype towards Dermal Regeneration. 2021 , 13,	8
546	CD271CD51PALLADIN Human Mesenchymal Stromal Cells Possess Enhanced Ossicle-Forming Potential. 2021 , 30, 725-735	
545	Stem Cell Niche Microenvironment: Review. 2021 , 8,	3
544	Mechanical compression enhances ciliary beating through cytoskeleton remodeling in human nasal epithelial cells. 2021 , 128, 346-356	0
543	Early time-point cell morphology classifiers successfully predict human bone marrow stromal cell differentiation modulated by fiber density in nanofiber scaffolds. 2021 , 274, 120812	2
542	Signaling network regulating osteogenesis in mesenchymal stem cells. 2021 , 1	9

541	Improved cell seeding efficiency and cell distribution in porous hydroxyapatite scaffolds by semi-dynamic method. 2021 , 1	
540	Avoiding tensional equilibrium in cells migrating on a matrix with cell-scale stiffness-heterogeneity. 2021 , 274, 120860	3
539	Long-Term Culture of Stem Cells on Phosphate-Based Glass Microspheres: Synergistic Role of Chemical Formulation and 3D Architecture.. 2021 , 4, 5987-6004	2
538	Tissue mechanics in stem cell fate, development, and cancer. <i>Developmental Cell</i> , 2021 , 56, 1833-1847	10.2 11
537	Adipose-PAS interactions in the context of its localised bio-engineering potential (Review). 2021 , 15, 70	
536	Morphological switch is associated with increase in cell-cell contacts, ALP, and confluence above a minimum island area to perimeter ratio. 2022 , 110, 164-180	0
535	Uniaxial Cyclic Stretching Promotes Chromatin Accessibility of Gene Loci Associated With Mesenchymal Stem Cells Morphogenesis and Osteogenesis. 2021 , 9, 664545	1
534	YAP1 nuclear efflux and transcriptional reprogramming follow membrane diminution upon VSV-G-induced cell fusion. 2021 , 12, 4502	0
533	The origin of universal cell shape variability in a confluent epithelial monolayer.	0
532	Matrix stiffness controls ciliogenesis and centriole position.	
531	ROCK2-Specific Inhibitor KD025 Suppresses Adipocyte Differentiation by Inhibiting Casein Kinase 2. 2021 , 26,	2
530	Interplay Between Notch and YAP/TAZ Pathways in the Regulation of Cell Fate During Embryo Development. 2021 , 9, 711531	0
529	The biochemical composition of the actomyosin network sets the magnitude of cellular traction forces. 2021 , 32, 1737-1748	2
528	Effect of Polymeric Matrix Stiffness on Osteogenic Differentiation of Mesenchymal Stem/Progenitor Cells: Concise Review. 2021 , 13,	5
527	Controlled domain gels with a biomimetic gradient environment for osteochondral tissue regeneration. 2021 , 135, 304-317	1
526	Dissecting Organismal Morphogenesis by Bridging Genetics and Biophysics. 2021 , 55, 209-233	1
525	Generation of insulin-producing pancreatic β-cells from multiple human stem cell lines. 2021 , 16, 4109-4143	10
524	Modeling of the Human Bone Environment: Mechanical Stimuli Guide Mesenchymal Stem Cell-Extracellular Matrix Interactions. 2021 , 14,	5

523	A Multidisciplinary Journey towards Bone Tissue Engineering. 2021 , 14,	5
522	Combinatorial effect of plasma treatment, fiber alignment and fiber scale of poly (ε-caprolactone)/collagen multiscale fibers in inducing tenogenesis in non-tenogenic media. 2021 , 127, 112206	8
521	Determination of the elastic modulus of adherent cells using spherical atomic force microscope probe. 2021 , 56, 18210-18218	0
520	Integrin signaling via actin cytoskeleton activates MRTF/SRF to entrain circadian clock.	1
519	Mesenchymal Stem Cells Resist Mechanical Confinement through the Activation of the Cortex during Cell Division. 2021 , 7, 4602-4613	1
518	2D biointerfaces to study stem cell-ligand interactions. 2021 , 131, 80-96	2
517	Self-Organization Provides Cell Fate Commitment in MSC Sheet Condensed Areas via ROCK-Dependent Mechanism. 2021 , 9,	0
516	Hippo/yes-associated protein signaling functions as a mechanotransducer in regulating vascular homeostasis. 2021 , 162, 158-165	0
515	Cell activity modulation and its specific function maintenance by bioinspired electromechanical nanogenerator. 2021 , 7, eabh2350	2
514	Engineering a 3D Vascularized Adipose Tissue Construct Using a Decellularized Lung Matrix. 2021 , 6,	0
513	3D Microenvironment-Specific Mechanosensing Regulates Neural Stem Cell Lineage Commitment.	
512	Fabrication approaches for high-throughput and biomimetic disease modeling. 2021 , 132, 52-82	1
511	3D Confinement Regulates Cell Life and Death. 2104098	1
510	Amine modification of calcium phosphate by low-pressure plasma for bone regeneration. 2021 , 11, 17870	1
509	Investigating the physical characteristics and cellular interplay on 3D-printed scaffolds depending on the incorporated silica size for hard tissue regeneration. 2021 , 207, 109866	1
508	Osteoinductive and antimicrobial mechanisms of graphene-based materials for enhancing bone tissue engineering. 2021 , 15, 915-935	5
507	Upregulation of mitochondrial dynamics is responsible for osteogenic differentiation of mesenchymal stem cells cultured on self-mineralized collagen membranes. 2021 , 136, 137-146	3
506	Study on the effect of surface characteristics of short-pulse laser patterned titanium alloy on cell proliferation and osteogenic differentiation. 2021 , 128, 112349	2

505	Mechanical loading activates the YAP/TAZ pathway and chemokine expression in the MLO-Y4 osteocyte-like cell line. 2021 , 101, 1597-1604	1
504	Biomimetic versus sintered macroporous calcium phosphate scaffolds enhanced bone regeneration and human mesenchymal stromal cell engraftment in calvarial defects. 2021 , 135, 689-704	1
503	The diameter factor of aligned membranes facilitates wound healing by promoting epithelialization in an immune way.. 2022 , 11, 206-217	5
502	At the nuclear envelope of bone mechanobiology. 2021 , 151, 116023	4
501	Mechanistic insights into the adsorption and bioactivity of fibronectin on surfaces with varying chemistries by a combination of experimental strategies and molecular simulations. 2021 , 6, 3125-3135	5
500	Bone physiological microenvironment and healing mechanism: Basis for future bone-tissue engineering scaffolds. 2021 , 6, 4110-4140	48
499	Light-induced osteogenic differentiation of BMSCs with graphene/TiO composite coating on Ti implant. 2021 , 207, 111996	1
498	Well ordered-microstructure bioceramics. 2021 , 25, 101194	1
497	Bio-printing of aligned GelMa-based cell-laden structure for muscle tissue regeneration. 2022 , 8, 57-70	12
496	Mathematical model of the germ cells mechanoreception. 2021 ,	0
495	Micropatterning of Substrates for the Culture of Cell Networks by Stencil-Assisted Additive Nanofabrication. 2021 , 12,	0
494	Graphene-Modified Titanium Surface Enhances Local Growth Factor Adsorption and Promotes Osteogenic Differentiation of Bone Marrow Stromal Cells. 2020 , 8, 621788	3
493	Autologous decellularized extracellular matrix promotes adipogenic differentiation of adipose derived stem cells in low serum culture system by regulating the ERK1/2-PPAR γ pathway. 2021 , 10, 174-188	4
492	Biophysical phenotyping of mesenchymal stem cells along the osteogenic differentiation pathway. 2021 , 37, 915-933	2
491	Osteoblast biology: developmental origin and interactive nature of osteoblasts. 2021 , 111-134	
490	Key determinants of cell-material interactions. 2021 , 5-41	
489	Chitosan Nanofibers in Regenerative Medicine. 2021 , 29-86	2
488	Mex-3 RNA binding MEX3A promotes the proliferation and migration of breast cancer cells via regulating RhoA/ROCK1/LIMK1 signaling pathway. 2021 , 12, 5850-5858	2

487	Topology-Dependent Cellular Interactions. 2008 , 215-248	3
486	Mechanical Forces Matter in Health and Disease: From Cancer to Tissue Engineering. 233	2
485	Engineering Biomaterial Interfaces Through Micro and Nano-Patterning. 2008 , 251-277	0
484	Ligand-functionalized Biomaterial Surfaces: Controlled Regulation of Signaling Pathways to Direct Cell Differentiation. 2009 , 157-171	2
483	Eph and ephrin interactions in bone. 2010 , 658, 95-103	3 ¹
482	Biophysical Properties of Scaffolds Modulate Human Blood Vessel Formation from Circulating Endothelial Colony-Forming Cells. 2011 , 89-109	1
481	Microbioreactors for Stem Cell Research. 2011 , 203-225	1
480	Responses of Cells to Adhesion-Mediated Signals: A Universal Mechanism. 2011 , 1-10	5
479	Cell-Generated Forces in Tissue Assembly, Function, and Disease. 2011 , 47-74	1
478	Engineering Graded Tissue Interfaces. 2013 , 299-322	2
477	Three-dimensional traction force microscopy of engineered epithelial tissues. 2015 , 1189, 191-206	9
476	Isolation and Manipulation of Adipogenic Cells to Assess TGF- β Superfamily Functions. 2016 , 1344, 205-17	1
475	Regulation of YAP/TAZ Activity by Mechanical Cues: An Experimental Overview. 2019 , 1893, 183-202	9
474	Patterning mouse and human embryonic stem cells using micro-contact printing. 2009 , 482, 21-33	3 ¹
473	Manipulation of cell-cell adhesion using bowtie-shaped microwells. 2007 , 370, 1-10	22
472	The Role of Mechanical Forces in Guiding Tissue Differentiation. 2011 , 77-97	3
471	Micropatterning cell adhesion on polyacrylamide hydrogels. 2013 , 1066, 147-56	11
470	Remodelling of the Extracellular Matrix: Implications for Cancer. 2013 , 65-90	1

469	Phenotypic Screening of iPSC-Derived Cardiomyocytes for Cardiotoxicity Testing and Therapeutic Target Discovery. 2019 , 19-34	1
468	Stiffness and Hepatocytes Function In Vitro. 2020 , 645-660	1
467	Biomimetic Surfaces for Cell Engineering. 2016 , 543-569	1
466	Adipose Tissue Function and Expandability as Determinants of Lipotoxicity and the Metabolic Syndrome. 2017 , 960, 161-196	93
465	Skeletal Stem Cells and Controlled Nanotopography. 2011 , 247-258	1
464	Multiscale Biomechanical Modeling of Stem Cell-Extracellular Matrix Interactions. 2011 , 27-53	3
463	Encyclopedia of Microfluidics and Nanofluidics. 2013 , 1-8	2
462	Microscale Biomaterials for Tissue Engineering. 2011 , 119-138	1
461	Preparation and Biomedical Application of Self-Organized Honeycomb-Patterned Polymer Films. 2012 , 22-26	3
460	Mechano-transduction in Cardiac and Stem-Cell Derived Cardiac Cells. 2010 , 99-139	1
459	Laser Guidance-Based Cell Micropatterning. 2010 , 137-159	1
458	Engineering Stem Cell Niche: Regulation of Cellular Morphology and Function. 2012 , 345-355	2
457	A Review of Bioreactors and Mechanical Stimuli. 2019 , 1-22	1
456	Patterned Biointerfaces. 2011 , 181-201	5
455	The Cells of Bone. 2006 , 221-258	2
454	Extracellular Matrix (ECM) and the Sculpting of Embryonic Tissues. 2018 , 130, 245-274	49
453	Effects of substrate stiffness on the tenoinduction of human mesenchymal stem cells. 2017 , 58, 244-253	38
452	Focal adhesion signaling affects regeneration by human nucleus pulposus cells in collagen- but not carbohydrate-based hydrogels. 2018 , 66, 238-247	15

451	Biomimetic micro/nano structures for biomedical applications. 2020 , 35, 100980	32
450	Hurdles to uptake of mesenchymal stem cells and their progenitors in therapeutic products. 2020 , 477, 3349-3366	4
449	Review on material parameters to enhance bone cell function in vitro and in vivo. 2020 , 48, 2039-2050	2
448	Spectrin couples cell shape, cortical tension, and Hippo signaling in retinal epithelial morphogenesis. 2020 , 219,	8
447	Important concepts of mechanical regulation of bone formation and growth. 2005 , 16, 338-345	7
446	A novel approach to derive human midbrain-specific organoids from neuroepithelial stem cells.	2
445	Geometrical confinement guides Brachyury self-patterning in embryonic stem cells.	2
444	Cell shape regulates subcellular organelle location to control early Ca ²⁺ signal dynamics in Vascular Smooth Muscle Cells.	6
443	Mechanics regulate human embryonic stem cell self-organization to specify mesoderm.	1
442	Stress fibers are embedded in a contractile cortical network.	1
441	Mechanical compartmentalization of the intestinal organoid enables crypt folding and collective cell migration.	1
440	Nanotopography reveals metabolites that maintain the immunosuppressive phenotype of mesenchymal stem cells.	1
439	Spatial control of viscoelasticity in phototunable hyaluronic acid hydrogels.	3
438	Microtubules deform the nucleus and force chromatin reorganization during early differentiation of human hematopoietic stem cells.	3
437	Biophysical properties of intermediate states of EMT outperform both epithelial and mesenchymal states.	3
436	Membrane tension mediated mechanotransduction drives fate choice in embryonic stem cells.	7
435	Hepatic C9 cells switch their behaviour in short or long exposure to soft substrates. 2020 , 112, 265-279	1
434	Targeting of cancer stem cells by differentiation therapy. 2020 , 111, 2689-2695	13

433	Recovery of Traction Exerted by Single Cells in Three-Dimensional Nonlinear Matrices. 2020 , 142,	5
432	As a matter of fat: New perspectives on the understanding of age-related bone loss. 2007 , 4, 129-140	14
431	Regulation and Directing Stem Cell Fate by Tissue Engineering Functional Microenvironments: Scaffold Physical and Chemical Cues. 2019 , 2019, 1-16	35
430	Immobilization after injury alters extracellular matrix and stem cell fate. 2020 , 130, 5444-5460	12
429	TGF- β /SMAD signaling regulation of mesenchymal stem cells in adipocyte commitment. 2020 , 11, 41	36
428	Microfabrication Techniques in Scaffold Development. 2008 , 87-119	2
427	Three-dimensional cell and tissue patterning in a strained fibrin gel system. 2007 , 2, e1211	78
426	Manipulation of signaling thresholds in "engineered stem cell niches" identifies design criteria for pluripotent stem cell screens. 2009 , 4, e6438	60
425	Dimensionality controls cytoskeleton assembly and metabolism of fibroblast cells in response to rigidity and shape. 2010 , 5, e9445	75
424	Stiffness gradients mimicking in vivo tissue variation regulate mesenchymal stem cell fate. 2011 , 6, e15978	355
423	Differential mechanical response of mesenchymal stem cells and fibroblasts to tumor-secreted soluble factors. 2012 , 7, e33248	40
422	Quantitative proteomic analysis of human embryonic stem cell differentiation by 8-plex iTRAQ labelling. 2012 , 7, e38532	20
421	Geometrical microfeature cues for directing tubulogenesis of endothelial cells. 2012 , 7, e41163	42
420	Matrix stiffness regulates endothelial cell proliferation through septin 9. 2012 , 7, e46889	89
419	Annexin A1 induces skeletal muscle cell migration acting through formyl peptide receptors. 2012 , 7, e48246	37
418	PTK7 marks the first human developmental EMT in vitro. 2012 , 7, e50432	11
417	Regulation of fibrochondrogenesis of mesenchymal stem cells in an integrated microfluidic platform embedded with biomimetic nanofibrous scaffolds. 2013 , 8, e61283	31
416	The role of paracrine and autocrine signaling in the early phase of adipogenic differentiation of adipose-derived stem cells. 2013 , 8, e63638	40

415	The mechanical environment modulates intracellular calcium oscillation activities of myofibroblasts. 2013 , 8, e64560	53
414	Porous tantalum coatings prepared by vacuum plasma spraying enhance bmscs osteogenic differentiation and bone regeneration in vitro and in vivo. 2013 , 8, e66263	49
413	Loss of let-7 microRNA upregulates IL-6 in bone marrow-derived mesenchymal stem cells triggering a reactive stromal response to prostate cancer. 2013 , 8, e71637	71
412	Cell adhesion and shape regulate TGF-beta1-induced epithelial-myofibroblast transition via MRTF-A signaling. 2013 , 8, e83188	67
411	Nanotopographic substrates of poly (methyl methacrylate) do not strongly influence the osteogenic phenotype of mesenchymal stem cells in vitro. 2014 , 9, e90719	17
410	Independent adipogenic and contractile properties of fibroblasts in Graves' orbitopathy: an in vitro model for the evaluation of treatments. 2014 , 9, e95586	15
409	Influence of ARHGEF3 and RHOA knockdown on ACTA2 and other genes in osteoblasts and osteoclasts. 2014 , 9, e98116	18
408	Microcontact peeling as a new method for cell micropatterning. 2014 , 9, e102735	10
407	Prolonged mechanical stretch initiates intracellular calcium oscillations in human mesenchymal stem cells. 2014 , 9, e109378	20
406	Guidance of mesenchymal stem cells on fibronectin structured hydrogel films. 2014 , 9, e109411	9
405	The effect of enterohemorrhagic E. coli infection on the cell mechanics of host cells. 2014 , 9, e112137	7
404	Collagen Promotes Higher Adhesion, Survival and Proliferation of Mesenchymal Stem Cells. 2015 , 10, e0145068	128
403	Regulation of white and brown adipocyte differentiation by RhoGAP DLC1. 2017 , 12, e0174761	18
402	Influence of surface geometry on the culture of human cell lines: A comparative study using flat, round-bottom and v-shaped 96 well plates. 2017 , 12, e0186799	7
401	Hyperbranched poly(?-lysine) substrate presenting the laminin sequence YIGSR induces the formation of spheroids in adult bone marrow stem cells. 2017 , 12, e0187182	5
400	Impact of Cell Density on Differentiation Efficiency of Rat Adipose-derived Stem Cells into Schwann-like Cells. 2016 , 9, 213-220	5
399	Roles of Nanofiber Scaffold Structure and Chemistry in Directing Human Bone Marrow Stromal Cell Response. 2016 , 1,	4
398	How is cell proprioception related to cell growth and differentiation? Strong scientific evidence for future clinical activities. 2018 , 64, 990-996	1

397	Aberrant RhoA activation in macrophages increases senescence-associated secretory phenotypes and ectopic calcification in muscular dystrophic mice. 2020 , 12, 24853-24871	2
396	Three-Dimensional Assembly of Multilayered Tissues Using Water Transfer Printing. 2013 , 25, 690-697	5
395	Drug Delivery Systems Based on Titania Nanotubes and Active Agents for Enhanced Osseointegration of Bone Implants. 2020 , 27, 854-902	12
394	Stem cell-based tissue engineering approaches for musculoskeletal regeneration. 2013 , 19, 3429-45	39
393	The Effect of Physical Cues on the Stem Cell Differentiation. 2019 , 14, 268-277	8
392	Bioreactors Design, Types, Influencing Factors and Potential Application in Dentistry. A Literature Review. 2019 , 14, 351-366	3
391	Mesenchymal Stem Cells Sense Three Dimensional Type I Collagen through Discoidin Domain Receptor 1. 2009 , 1, 40-53	29
390	Polystyrene Topography Sticker Array for Cell-Based Assays. 2020 , 2,	1
389	Expression pattern of neurotrophins and their receptors during neuronal differentiation of adipose-derived stem cells in simulated microgravity condition. 2017 , 20, 178-186	11
388	Fibronectin- and collagen-mimetic ligands regulate bone marrow stromal cell chondrogenesis in three-dimensional hydrogels. 2011 , 22, 168-76; discussion 176-7	44
387	Effect of scaffold microarchitecture on osteogenic differentiation of human mesenchymal stem cells. 2013 , 25, 114-129	67
386	Low-dose X-ray irradiation induces morphological changes and cytoskeleton reorganization in osteoblasts. 2020 , 20, 283	2
385	Nuclear Association of Nonmuscle Myosin-II within the Giant Cells of <i>Drosophila melanogaster</i> Salivary Gland Organ: Tail Domain Specifies Perinuclear Oligomerization. 2011 , 2, 30-39	2
384	Material and mechanical factors: new strategy in cellular neurogenesis. 2014 , 9, 1810-3	8
383	Elastic modulus affects the growth and differentiation of neural stem cells. 2015 , 10, 1523-7	7
382	Complement C3a signaling mediates production of angiogenic factors in mesenchymal stem cells. 2013 , 06, 1-13	6
381	Engineering stem cell niches in bioreactors. 2013 , 5, 124-35	26
380	"Ins" and "Outs" of mesenchymal stem cell osteogenesis in regenerative medicine. 2014 , 6, 94-110	20

379	Control of stem cell fate by engineering their micro and nanoenvironment. 2015 , 7, 37-50	72
378	Traction force microscopy for understanding cellular mechanotransduction. 2020 , 53, 74-81	17
377	The effect of nano-scale topography on osteogenic differentiation of mesenchymal stem cells. 2014 , 158, 5-16	20
376	Morphological characteristics of mesenchymal stem cells from Wharton jelly, cultivated under physiological oxygen tensions, in various gas mixtures. 2016 , 32, 262-270	5
375	The Rho-guanine nucleotide exchange factor PDZ-RhoGEF governs susceptibility to diet-induced obesity and type 2 diabetes. 2015 , 4,	14
374	Discrete spatial organization of TGF β receptors couples receptor multimerization and signaling to cellular tension. 2015 , 4, e09300	26
373	Differentiation alters stem cell nuclear architecture, mechanics, and mechano-sensitivity. 2016 , 5,	86
372	The major β -catenin/E-cadherin junctional binding site is a primary molecular mechano-transductor of differentiation. 2018 , 7,	40
371	Tunable molecular tension sensors reveal extension-based control of vinculin loading. 2018 , 7,	50
370	Spatiotemporal mosaic self-patterning of pluripotent stem cells using CRISPR interference. 2018 , 7,	19
369	Piezo1/2 mediate mechanotransduction essential for bone formation through concerted activation of NFAT-YAP1- β -catenin. 2020 , 9,	62
368	Regulation of stem cell fate using nanostructure-mediated physical signals. 2021 , 50, 12828-12872	6
367	Electrospun Fiber Alignment Guides Osteogenesis and Matrix Organization Differentially in Two Different Osteogenic Cell Types. 2021 , 9, 672959	2
366	Decellularized Extracellular Matrix Composite Hydrogel Bioinks for the Development of 3D Bioprinted Head and Neck in Vitro Tumor Models. 2021 , 7, 5288-5300	8
365	Modulation of neo-endothelialization of vascular graft materials by silk fibroin. 2021 , 66, 573-580	
364	Mechanical Memory Impairs Adipose-Derived Stem Cell (ASC) Adipogenic Capacity After Long-Term Expansion. 2021 , 14, 397-408	0
363	Roles of Non-Canonical Wnt Signalling Pathways in Bone Biology. 2021 , 22,	4
362	Polylysine for skin regeneration: A review of recent advances and future perspectives.. 2022 , 7, e10261	1

- 361 The effect of cofilin 1 expression and phosphorylation dynamics on cell fate determination and neuron maturation in neural stem cells. **2021**, 764, 136292
- 360 Instrumentation for Cell Mechanics. **2006**, 65-1-65-11
- 359 Chondrocyte Phenotype in Engineered Fibrous Matrix Is Regulated by Fiber Size. **2006**, 060802052515028
- 358 Chondrocyte Phenotype in Engineered Fibrous Matrix Is Regulated by Fiber Size. **2006**, 060706073730053
- 357 Mechanical Forces on Cells. **2007**, 4-1-4-18
- 356 Cell-Based Therapies for Musculoskeletal Repair. **2008**, 888-911
- 355 Microfabrication Techniques in Scaffold Development. **2008**, 105-138
- 354 Nanotechnology in Stem Cell Biology and Technology. **2008**, 1
- 353 Micro- and Nanoscale Technologies in High-Throughput Biomedical Experimentation. **2009**, 314-346
- 352 Stem Cells and Nanostructured Materials. **2009**, 1-20
- 351 What Should We Print? Emerging Principles to Rationally Design Tissues Prone to Self-Organization. **2010**, 163-171
- 350 Osteoblast Biology. **2010**, 55-112 1
- 349 Stem Cells and Nanomedicine: Nanomechanics of the Microenvironment. 305 1
- 348 Progenitor Cell Tissue Engineering. **2011**, 19-46
- 347 Biointerface Technology. **2011**, 523-546
- 346 Engineering of Adipose Tissue. **2011**, 349-370
- 345 Directing Cell Fate Through Biomaterial Microenvironments. **2011**, 123-140
- 344 Direct Differentiation of Human Embryonic Stem Cells into Selective Neurons on Nanoscale Ridge/Groove Pattern Arrays. **2011**, 415-425

- 343 Polymer-Grafted Surfaces for the Manipulation of Stem Cell Functions. **2011**, 48, 132-139
- 342 Mechanobiology of Bone. **2011**, 117-136
- 341 Micro and Nanotechnologies for Tissue Engineering. **2011**, 139-178 1
- 340 A Role for Integrin-ECM Bonds as Mechanotransducers that Modulate Adult Stem Cell Fate. **2011**, 23-46 1
- 339 Molecular Analysis in Mechanobiology. **2011**, 45-72
- 338 Microtechnological Approaches in Stem Cell Science. **2012**, 135-165
- 337 Stem Cell Response to Biomaterial Topography. **2012**, 299-326 1
- 336 Cell Mechanobiology in Regenerative Medicine. **2012**, 1-16
- 335 Synthetic Biomaterials and Stem Cells for Connective Tissue Engineering. **2012**, 1-18
- 334 Musculoskeletal Cell Mechanics. **2012**, 301-324
- 333 Microfabricated Technologies for Cell Mechanics Studies. 293-309
- 332 The Modulation of Skeletal Stem Cell Function Through Nanoscale Topography. **2013**, 125-144
- 331 Biointerface Technology. **2013**, 611-634
- 330 Rapid Assembly of Cellular Aggregation Using Micro-Nano Technologies. **2014**, 43-55
- 329 Physical and Engineering Principles in Stem Cell Research. **2014**, 21-43
- 328 Sympathetic Nervous System and Endocrine Determinants of Energy Balance. **2014**, 215-224
- 327 Design Concept of Topographical and Mechanical Properties of Synthetic Extracellular Matrix to Control Cell Functions and Fates Through Actin Cytoskeletal Modulation. **2015**, 159-186 1
- 326 Morphomechanical Feedbacks. **2015**, 113-156

- 325 Hydrogel-Based Biomimetic Environment for In Vitro Cell and Tissue Manipulation. **2015**, 161-168
- 324 Emerging Engineering Strategies for Studying the Stem Cell Niche. **2015**, 57-106
- 323 Microenvironment Applications. 4652-4670
- 322 Stem Cell: Hematopoietic Stem Cell Culture, Materials for. 7553-7564
- 321 Biointerface Technology. **2016**, 151-183
- 320 Stem Cells in Translation versus Innovative Biomaterials and /or Nanomaterials. **2016**, 2, 1-3
- 319 Rapid dynamics of cell-shape recovery in response to local deformations.
- 318 Alterations in Platelet Activity and Elastic Modulus of Healthy Subjects, Carriers of G20210A Polymorphism in the Prothrombin Gene. **2016**, 9, 72-79
- 317 Nanofibers Design for Guided Cellular Behavior. **2016**, 17-27
- 316 Integrin-Mediated Interactions in Cartilage Physiology and Pathophysiology. **2017**, 155-189
- 315 Physico-Chemical Properties of the Stem Cell Niche. **2017**, 61-80
- 314 Optogenetic Control of RhoA Reveals Zyxin-mediated Elasticity of Stress Fibers.
- 313 Stem Cell: Hematopoietic Stem Cell Culture, Materials for. **2017**, 1453-1464
- 312 Measurement of 3D Deformation Field of ECM Generated by Mesenchymal Stem Cell Using DVC Method. **2018**, 9-14
- 311 Micro- and Nanotechnologies to Probe Brain Mechanobiology. **2018**, 1-29
- 310 Spatiotemporal mosaic patterning of pluripotent stem cells using CRISPR interference.
- 309 Developmental Mechanisms Linking Form and Function During Jaw Evolution.
- 308 Tunable molecular tension sensors reveal extension-based control of vinculin loading.

- 307 An immortalised mesenchymal stem cell line maintains mechano-responsive behaviour and can be used as a reporter of substrate stiffness. 1
- 306 4D imaging reveals stage dependent random and directed cell motion during somite morphogenesis.
- 305 The nidogen-domain containing protein DEX-1 is required for epidermal remodeling in *C. elegans* dauers.
- 304 Nuclear decoupling is part of a rapid protein-level cellular response to high-intensity mechanical loading. 2
- 303 Soft Substrate Maintains Proliferative and Adipogenic Differentiation Potential of human Mesenchymal Stem Cells on Long Term Expansion by Delaying Senescence. 1
- 302 Context-explorer: Analysis of spatially organized protein expression in high-throughput screens.
- 301 Predicting the future direction of cell movement with convolutional neural networks. 1
- 300 Modeling of the mesenchymal stem cell microenvironment as a prospective approach to tissue bioengineering and regenerative medicine (a short review). **2018**, 17, 217-228 1
- 299 Non-cell-autonomous promotion of pluripotency induction mediated by YAP.
- 298 Chapter 2:Adult Stem Cell Culture on Extracellular Matrices and Natural Biopolymers. **2019**, 12-85
- 297 Simulator for Modelling Confocal Microscope Distortions. **2019**, 79-90
- 296 Stem Cell Differentiation Directed by Material and Mechanical Cues. **2019**, 61-67
- 295 Clinical Application of Stem/Stromal Cells in COPD. **2019**, 97-118
- 294 Chapter 4:Differentiation Fates of Human ES and iPS Cells Guided by Physical Cues of Biomaterials. **2019**, 141-251
- 293 Golgi mechanics controls lipid metabolism. **2019**, 21, 301-302
- 292 Tissue mechanics drives epithelialization, goblet cell regeneration, and restoration of a mucociliated epidermis on the surface of embryonic aggregates.
- 291 Compaction dynamics during progenitor cell self-assembly reveal granular mechanics.
- 290 Hybrid Nanofiber Scaffold-Based Direct Conversion of Neural Precursor Cells/Dopamine Neurons. **2019**, 12, 340-346 1

- 289 Free-energy-based framework for early forecasting of stem cell differentiation.
- 288 NuSeT: A Deep Learning Tool for Reliably Separating and Analyzing Crowded Cells. 1
- 287 Dimensionality changes actin network through lamin A and C and zyxin. 0
- 286 Transcriptional reprogramming in fused cells is triggered by plasma-membrane diminution.
- 285 Energy Expenditure during Cell Spreading Regulates the Stem Cells Responses to Matrix Stiffness.
- 284 Surface topography is a context-dependent activator of TGF- β signaling in mesenchymal stem cells.
- 283 The use of nanovibration to discover specific and potent bioactive metabolites that stimulate osteogenic differentiation in mesenchymal stem cells.
- 282 Lmo7a Coordinates Neural Crest Migration and Lineage Specification by Regulating Cell Adhesion Dynamics. 1
- 281 A Src-H3 acetylation signaling axis integrates macrophage mechanosensation with inflammatory response. **2021**, 279, 121236 4
- 280 Hylozoic by Design: Converging Material and Biological Complexities for Cell-Driven Living Materials with 4D Behaviors. 2108057 0
- 279 Strategies to Introduce Topographical and Structural Cues in 3D-Printed Scaffolds and Implications in Tissue Regeneration. 2100068 3
- 278 Direct reuse of electronic plastic scraps from computer monitor and keyboard to direct stem cell growth and differentiation. **2021**, 807, 151085 0
- 277 Highly substituted calcium silicates 3D printed with complex architectures to produce stiff, strong and bioactive scaffolds for bone regeneration. **2021**, 25, 101230 2
- 276 Extracellular matrix-inspired surface coatings functionalized with dexamethasone-loaded liposomes to induce osteo- and chondrogenic differentiation of multipotent stem cells. **2021**, 131, 112516 3
- 275 AFM force spectroscopy as a powerful tool to address material design for biomedical applications. A review. **2020**, 9, 141-164
- 274 Downregulation of vimentin intermediate filaments affect human mesenchymal stem cell adhesion and formation of cellular projections. **2020**, 7, 272-288
- 273 Scalable generation of mesenchymal stem cells and adipocytes from human pluripotent stem cells.
- 272 TGF- β -driven downregulation of the Wnt/ β -Catenin transcription factor TCF7L2/TCF4 in PDGFR α fibroblasts. 1

271	Substrates with Different Rigidity for Directed Differentiation of Bovine Mesenchymal Stem Cells. 2020 , 36, 87-97	
270	Bone-Marrow-Derived Mesenchymal Stromal Cells: From Basic Biology to Applications in Bone Tissue Engineering and Bone Regeneration. 2020 , 1-55	
269	Nanobiomaterials in musculoskeletal regeneration. 2020 , 43-76	0
268	Boron induces osteogenesis by stimulating NaBC1 in cooperation with BMPR1A.	
267	Injectable Nanoporous Microgels Generate Vascularized Constructs and Support Bone Regeneration in Critical-sized Defects.	
266	Hypoxia induces stress fiber formation in adipocytes in the early stage of obesity. 2021 , 11, 21473	3
265	Intrinsic Mechanical Cues and Their Impact on Stem Cells and Embryogenesis. 2021 , 9, 761871	4
264	Adhesive-ligand-independent cell-shaping controlled by the lateral deformability of a condensed polymer matrix.	
263	Biophysical Stimuli as the Fourth Pillar of Bone Tissue Engineering. 2021 , 9, 790050	6
262	Micro and Nano Patterning for Cell and Tissue Engineering. 2008 , 215-229	
261	PEA polymer-coated nanotopography delivers solid-state BMP2, enhances mesenchymal stem cell adhesion, prevents bacterial biofilm formation and protects cells from quorum sensing virulence factors.	
260	Avoiding tensional equilibrium in cells migrating on a matrix with cell-scale stiffness-heterogeneity.	1
259	Cellular and molecular mechanisms of frontal bone development in spotted gar (<i>Lepisosteus oculatus</i>).	
258	Bone regeneration: molecular and cellular interactions with calcium phosphate ceramics. 2006 , 1, 317-32	256
257	Imaging and manipulating the structural machinery of living cells on the micro- and nanoscale. 2007 , 2, 333-44	3
256	Proteome changes during bone mesenchymal stem cell differentiation into photoreceptor-like cells in vitro. 2011 , 4, 466-73	2
255	Mechanisms of gravitational sensitivity of osteogenic precursor cells. 2010 , 2, 28-36	9
254	Structure-function relationships in the stem cell's mechanical world B: emergent anisotropy of the cytoskeleton correlates to volume and shape changing stress exposure. 2011 , 8, 297-318	26

253	Improved Survival and Hematopoietic Differentiation of Murine Embryonic Stem Cells on Electrospun Polycaprolactone Nanofiber. 2016 , 17, 629-38	9
252	Suspension Culture Alters Insulin Secretion in Induced Human Umbilical Cord Matrix-Derived Mesenchymal Cells. 2016 , 18, 52-61	9
251	The molecular basis of bone mechanotransduction. 2016 , 16, 221-36	42
250	Actin up in the Nucleus: Regulation of Actin Structures Modulates Mesenchymal Stem Cell Differentiation. 2017 , 128, 180-192	5
249	RhoA/ROCK pathway: implication in osteoarthritis and therapeutic targets. 2019 , 11, 5324-5331	17
248	[Effects of electrospun collagen nanofibrous matrix on the biological behavior of human dental pulp cells]. 2019 , 51, 28-34	
247	Natural hydrogels for bone tissue engineering. 2022 , 743-770	
246	Biomaterials patterning regulates neural stem cells fate and behavior: The interface of biology and material science. 2021 ,	1
245	Arhgap21 Deficiency Results in Increase of Osteoblastic Lineage Cells in the Murine Bone Marrow Microenvironment.. 2021 , 9, 718560	0
244	Piezoelectric materials and systems for tissue engineering and implantable energy harvesting devices for biomedical applications. 1-51	4
243	Effects of mechanical properties of gelatin methacryloyl hydrogels on encapsulated stem cell spheroids for 3D tissue engineering. 2021 , 194, 903-903	0
242	Substrate stiffness controls the cell cycle of human mesenchymal stem cells via cellular traction.	
241	Materials-driven fibronectin assembly on nanoscale topography enhances mesenchymal stem cell adhesion, protecting cells from bacterial virulence factors and preventing biofilm formation. 2021 , 280, 121263	2
240	The biophysics of cancer: emerging insights from micro- and nanoscale tools.. 2022 , 2, 2100056	5
239	Perspectives on scaling production of adipose tissue for food applications.. 2021 , 280, 121273	5
238	TM9SF4 is a novel regulator in lineage commitment of bone marrow mesenchymal stem cells to either osteoblasts or adipocytes. 2021 , 12, 573	0
237	Probing Insulin Sensitivity with Metabolically Competent Human Stem Cell-Derived White Adipose Tissue Microphysiological Systems. 2021 , e2103157	0
236	Integrins, cadherins and channels in cartilage mechanotransduction: perspectives for future regeneration strategies. 2021 , 23, e14	6

- 235 The Loop of Phenotype: Dynamic Reciprocity Links Tenocyte Morphology to Tendon Tissue Homeostasis.
- 234 3D-bioprinted microenvironments for sweat gland regeneration.. **2022**, 10, tkab044 2
- 233 Mechanotransduction in fibrosis: Mechanisms and treatment targets. **2021**, 87, 279-314 0
- 232 YAP/TAZ in Bone and Cartilage Biology.. **2021**, 9, 788773 2
- 231 Cell adhesion strength and tractions are mechano-diagnostic features of cellular invasiveness.
- 230 Bioactive fluorescent hybrid microparticles as a stand-alone osteogenic differentiation inducer.. **2022**, 13, 100187
- 229 Geometrical and Mechanical Nanoarchitectonics at Interfaces Bridging Molecules with Cell Phenotypes. **2022**, 275-286
- 228 Hipster microcarriers: exploring geometrical and topographical cues of non-spherical microcarriers in biomedical applications.. **2021**, 0
- 227 The introduction of nanotopography suppresses bacterial adhesion and enhances osteoinductive capacity of plasma deposited polyoxazoline surface. **2022**, 309, 131452 0
- 226 Relationship of matrix stiffness and cell morphology in regulation of osteogenesis and adipogenesis of BMSCs.. **2022**, 49, 2677 1
- 225 Quantitative Analyses of Collective Cell Motion on the Patterned Surfaces. **2022**, 89,
- 224 Toward the in vitro understanding of iPSC nucleoskeletal and cytoskeletal biology, and their relevance for organoid development. **2022**, 137-150
- 223 RHOA inhibits chondrogenic differentiation of mesenchymal stem cells in adolescent idiopathic scoliosis.. **2022**, 1-10
- 222 Short-Duration High Frequency MegaHertz-Order Nanomechanostimulation Drives Early and Persistent Osteogenic Differentiation in Mesenchymal Stem Cells.. **2022**, e2106823 2
- 221 Reduced growth rate of aged muscle stem cells is associated with impaired mechanosensitivity.. **2022**, 14, 1
- 220 Mechanoregulation of Vascular Endothelial Growth Factor Receptor 2 in Angiogenesis.. **2021**, 8, 804934 2
- 219 The Galapagos Chip Platform for High-Throughput Screening of Cell Adhesive Chemical Micropatterns.. **2022**, e2105704 1
- 218 Facile and Versatile Method for Micropatterning Poly(acrylamide) Hydrogels Using Photocleavable Comonomers.. **2022**, 1

217	Morphology-Based Deep Learning Approach for Predicting Osteogenic Differentiation.. 2021 , 9, 802794	0
216	Bioinspired bimodal micro-nanofibrous scaffolds promote the tenogenic differentiation of tendon stem/progenitor cells for achilles tendon regeneration.. 2022 ,	0
215	Comparative Effects of Basic Fibroblast Growth Factor Delivery or Voluntary Exercise on Muscle Regeneration after Volumetric Muscle Loss.. 2022 , 9,	1
214	Nucleus-cytoskeleton communication impacts on OCT4-chromatin interactions in embryonic stem cells.. 2022 , 20, 6	1
213	Folic acid pretreatment and its sustained delivery for chondrogenic differentiation of MSCs.. 2022 ,	2
212	Microstructural evolution of strontium-zinc-phosphate coating on titanium via changing Zn ²⁺ concentration in phosphate solution for enhanced osteogenic activity. 2022 , 433, 128143	0
211	FGFR2 accommodates osteogenic cell fate determination in human mesenchymal stem cells.. 2022 , 146199	0
210	Preservation of the native features of mesenchymal stromal cells in vitro: Comparison of cell- and bone-derived decellularized extracellular matrix.. 2022 , 13, 20417314221074453	2
209	Precise tissue bioengineering and niches of mesenchymal stem cells: Their size and hierarchy matter. 2022 , 46, 1365-1373	
208	Adipose cells and tissues soften with lipid accumulation while in diabetes adipose tissue stiffens.	
207	Bioinspired Injectable Hydrogels Dynamically Stiffen and Contract to Promote Mechanosensing-Mediated Chondrogenic Commitment of Stem Cells.. 2022 ,	1
206	Mechanically enhanced composite hydrogel scaffold for in situ bone repairs.. 2022 , 112700	0
205	Construction of the drug-contained microenvironment for in situ bone regeneration.	
204	Mesenchymal Stem Cell Behavior on Soft Hydrogels with Aligned Surface Topographies.. 2022 ,	0
203	Axin2-lineage cells contribute to neonatal tendon regeneration.. 2022 , 1-14	0
202	Substrate rigidity dictates colorectal tumorigenic cell stemness and metastasis via CRAD-dependent mechanotransduction.. 2022 , 38, 110390	1
201	Nonswelling and Hydrolytically Stable Hydrogels Uncover Cellular Mechanosensing in 3D.. 2022 , e2105325	2
200	Soft Hydrogel Environments that Facilitate Cell Spreading and Aggregation Preferentially Support Chondrogenesis of Adult Stem Cells.. 2022 , e2100365	1

- 199 The Bumpy Road to Stem Cell Therapies: Rational Design of Surface Topographies to Dictate Stem Cell Mechanotransduction and Fate.. **2022**, 0
- 198 Biomaterials for Recruiting and Activating Endogenous Stem Cells in situ Tissue Regeneration.. **2022**, 1
- 197 Pharmacological Perturbation of Mechanical Contractility Enables Robust Transdifferentiation of Human Fibroblasts into Neurons.. **2022**, e2104682 1
- 196 Super-resolution imaging of the third dimension of the actin cytoskeleton using metal-induced energy transfer and micropatterning. **2022**, 0
- 195 The Pseudo-Natural Product Rhonin Targets RHOGDI.
- 194 Nanoscale Biocompatible Structures Generated from Fluorinated Tripodal Phenylenes on Gold Nanoprisms.. **2022**, 11, e202200007 1
- 193 Attachment and Osteogenic Potential of Dental Pulp Stem Cells on Non-Thermal Plasma and UV Light Treated Titanium, Zirconia and Modified PEEK Surfaces.. **2022**, 15, 0
- 192 3D Tissue-Engineered Vascular Drug Screening Platforms: Promise and Considerations.. **2022**, 9, 847554 4
- 191 Stem cell differentiation with consistent lineage commitment induced by a flash of ultrafast-laser activation in vitro and in vivo.. **2022**, 38, 110486 1
- 190 The Pseudo-Natural Product Rhonin Targets RHOGDI.. **2022**, 0
- 189 Leveraging substrate stiffness to promote stem cell asymmetric division via mechanotransduction-polarity protein axis and its Bayesian regression analysis.. **2022**, 0
- 188 Near-Infrared Light-Controlled Activation of Adhesive Peptides Regulates Cell Adhesion and Multidifferentiation in Mesenchymal Stem Cells on an Up-Conversion Substrate.. **2022**, 0
- 187 Matrix stiffness regulates lipid nanoparticle-mRNA delivery in cell-laden hydrogels.. **2022**, 102550 0
- 186 Structure of the Bone Marrow. **2022**, 18-26
- 185 Zinc-doped hydroxyapatite and poly(propylene fumarate) nanocomposite scaffold for bone tissue engineering. **2022**, 57, 5998-6012 0
- 184 Synergistic effect of cell and molecule: imprinted substrates for bone tissue engineering.. **2022**,
- 183 Prevention of collagen hydrogel contraction using polydopamine-coating and alginate outer shell increases cell contractile force. **2022**, 212780 0
- 182 ROCK 'n TOR: An Outlook on Keratinocyte Stem Cell Expansion in Regenerative Medicine via Protein Kinase Inhibition.. **2022**, 11, 0

181	Mechanical control of nuclear import by Importin-7 is regulated by its dominant cargo YAP.. 2022 , 13, 1174	2
180	Gelatin Blends Enhance Performance of Electrospun Polymeric Scaffolds in Comparison to Coating Protocols.. 2022 , 14,	1
179	Appreciating the role of cell shape changes in the mechanobiology of epithelial tissues. 2022 , 3, 011305	2
178	Simulated confluence on micropatterned substrates correlates responses regulating cellular differentiation.. 2022 ,	0
177	Interplay between mechanics and signalling in regulating cell fate.. 2022 ,	2
176	Mechanical Control of Cell Differentiation: Insights from the Early Embryo.. 2022 ,	1
175	Biomaterial-induced pathway modulation for bone regeneration.. 2022 , 283, 121431	3
174	Targeting the IGF/PI3K/mTOR pathway and AXL/YAP1/TAZ pathways in primary bone cancer.. 2022 , 33, 100419	1
173	Circadian clock control of MRTF-SRF pathway suppresses beige adipocyte thermogenic recruitment.	0
172	Micro-patterned cell populations as advanced pharmaceutical drugs with precise functional control.. 2022 , 114169	1
171	The influence of nanotopography on cell behaviour through interactions with the extracellular matrix - A review.. 2022 , 15, 145-159	2
170	Free or fixed state of nHAP differentially regulates hBMSMC morphology and osteogenesis through the valve role of ITGA7.. 2022 , 18, 539-551	2
169	Endowing Polyetheretherketone Implants with Osseointegration Properties: In Situ Construction of Patterned Nanorod Arrays.. 2021 , e2105589	5
168	Multiplexed high-throughput immune cell imaging reveals molecular health-associated phenotypes.	0
167	A DNA-based optical force sensor for live-cell applications.	
166	Impact of cell-cell interactions on communication and collectiveness. 2022 , 51-65	
165	is a 3D matrix-specific mediator of mechanosensitive stem cell lineage commitment.. 2022 , 8, eabm4646	3
164	Table_1.DOCX. 2020 ,	

163 Presentation_1.pdf. **2020**,

162 Table_1.docx. **2019**,

161 Image_1.TIF. **2020**,

160 Image_2.TIF. **2020**,

159 Table_1.XLSX. **2020**,

158 Table_2.XLSX. **2020**,

157 Table_3.docx. **2020**,

156 Table_4.docx. **2020**,

155 Data_Sheet_1.doc. **2018**,

154 Image_1.JPEG. **2018**,

153 Image_2.JPEG. **2018**,

152 Wahrnehmungsdimensionen des haptischen Systems. **2022**, 1-47

151 Actin cytoskeleton signaling via MRTF/SRF entrains circadian clock.

150 Engineered Chimeric Peptides with IGF-1 and Titanium-Binding Functions to Enhance Osteogenic Differentiation In Vitro under T2DM Condition.. **2022**, 15,

0

149 E3 ligase HUWE1 promotes PDGF D-mediated osteoblastic differentiation of mesenchymal stem cells by effecting polyubiquitination of EPDGR.. **2022**, 101981

1

148 Cytochalasin B Modulates Nanomechanical Patterning and Fate in Human Adipose-Derived Stem Cells. **2022**, 11, 1629

3

147 The loop of phenotype: Dynamic reciprocity links tenocyte morphology to tendon tissue homeostasis.. **2022**,

146 Cell adhesion strength and tractions are mechano-diagnostic features of cellular invasiveness.

0

- 145 Cell-controlled dynamic surfaces for skeletal stem cell growth and differentiation.. **2022**, 12, 8165 0
- 144 Tissue-specific melt electrowritten polymeric scaffolds for coordinated regeneration of soft and hard periodontal tissues.. **2023**, 19, 268-281 2
- 143 Human induced mesenchymal stem cells display increased sensitivity to matrix stiffness.. **2022**, 12, 8483 2
- 142 Rutin Inhibits the Progression of Osteoarthritis Through -Mediated Signaling.. **2022**, 14, eabj9152 1
- 141 Disrupting mechanotransduction decreases fibrosis and contracture in split-thickness skin grafting.. **2022**, 14, eabj9152 1
- 140 Synergistic effects of fluid shear stress and adhesion morphology on the apoptosis and osteogenesis of mesenchymal stem cells. 0
- 139 Epigallocatechine-3-gallate Inhibits the Adipogenesis of Human Mesenchymal Stem Cells via the Regulation of Protein Phosphatase-2A and Myosin Phosphatase. **2022**, 11, 1704 0
- 138 Multifunctional TiO2 coatings developed by plasma electrolytic oxidation technique on a Ti20Nb20Zr4Ta alloy for dental applications. **2022**, 138, 212875 0
- 137 Understanding the interplay of membrane trafficking, cell surface mechanics, and stem cell differentiation. **2022**, 137, 212875 0
- 136 Osteogenic and antibacterial ability of micro-nano structures coated with ZnO on Ti-6Al-4V implant fabricated by two-step laser processing. **2022**, 136, 212875 1
- 135 Universal Printing Technique of Polydopamine onto Versatile Surfaces for High-Resolution Cell Patterning Using Wet Elastomeric Stamp. 2200404 1
- 134 Chromatin-modifying enzymes as modulators of nuclear size during lineage differentiation. 0
- 133 Mechanical regulation of chromatin and transcription. 1
- 132 Chondrocyte-specific response to stiffness-mediated primary cilia formation and centriole positioning. 1
- 131 Force propagation between epithelial cells depends on active coupling and mechano-structural polarization. 1
- 130 Effect of increasing mineralization on pre-osteoblast response to native collagen fibril scaffolds for bone tissue repair and regeneration. **2022**, 20, 228080002211040 1
- 129 Enhanced PDGFR/Wnt/βcatenin activity of mesenchymal stem cells with high migration ability rescue bone loss of osteoporosis. **2022**, 110394 1
- 128 Emerging interplay of cytoskeletal architecture, cytomchanics and pluripotency. **2022**, 135, 212875 0

- 127 Modulated nanowire scaffold for highly efficient differentiation of mesenchymal stem cells. **2022**, 20, 0
- 126 Adipose cells and tissues soften with lipid accumulation while in diabetes adipose tissue stiffens. **2022**, 12, 0
- 125 Insight Into Rho Kinase Isoforms in Obesity and Energy Homeostasis. 13, 0
- 124 Regulation of mesenchymal stem cell osteogenic potential via microfluidic manipulation of microcarrier surface curvature. **2022**, 448, 137739 0
- 123 Interplay of matrix stiffness and stress relaxation in directing osteogenic differentiation of mesenchymal stem cells. 1
- 122 Oncology and mechanics: Landmark studies and promising clinical applications. **2022**, 0
- 121 Role of angiogenesis in bladder tissue engineering. **2022**, 463-490
- 120 Liver-on-a-Chip. **2022**, 341-357
- 119 Promise and Perspective of Nanomaterials in Antisenescence Tissue Engineering Applications. 1
- 118 Bone Tissue Engineering by Cell-Imprinted Polydimethyl Silicone Surface and ECarotene: An In Vitro Study.
- 117 Enhancing metabolic activity and differentiation potential in adipose mesenchymal stem cells via high-resolution surface-acoustic-wave contactless patterning. **2022**, 8, 1
- 116 Substrate Stiffness Controls the Cell Cycle of Human Mesenchymal Stem Cells Via Cellular Traction. 0
- 115 Sperm of Fruit Fly *Drosophila melanogaster* under Space Flight. **2022**, 23, 7498 0
- 114 An RNA binding protein, RNP1A, works with Contractility Kit proteins to facilitate macropinocytosis.
- 113 The interplay of collagen/bioactive glass nanoparticle coatings and electrical stimulation regimes distinctly enhanced osteogenic differentiation of human mesenchymal stem cells. **2022**, 2
- 112 Computational framework for single-cell spatiotemporal dynamics of optogenetic membrane recruitment. **2022**, 100245
- 111 ISO2-PU Honeycomb Porous Films With A Peculiar Crystalline Structure by the Breath Figure Method Promote Osteogenic Differentiation of Stem Cells. 2200358
- 110 Integrated gradient tissue-engineered osteochondral scaffolds: Challenges, current efforts and future perspectives. **2023**, 20, 574-597 5

- 109 Cell-laden Gradient Microgel Suspensions for Spatial Control of Differentiation During Biofabrication. 2201122 1
- 108 Importance of the Microenvironment and Mechanosensing in Adipose Tissue Biology. **2022**, 11, 2310 o
- 107 TiO₂ Nanotopography-Driven Osteoblast Adhesion through Coulombic Force Evolution.
- 106 A switchable light-responsive azopolymer conjugating protein micropatterns with topography for mechanobiological studies. 10,
- 105 Mimicking Bone Extracellular Matrix: From BMP-2-Derived Sequences to Osteogenic-Multifunctional Coatings. 2201339
- 104 6-Bromoindirubin-3'-Oxime Regulates Colony Formation, Apoptosis, and Odonto/Osteogenic Differentiation in Human Dental Pulp Stem Cells. **2022**, 23, 8676 o
- 103 Regulatory roles of fibronectin and integrin β in reorganization of the actin cytoskeleton and completion of adipogenesis. **2022**, 33, 2
- 102 Mechanical Force Directs Proliferation and Differentiation of Stem Cells.
- 101 Cell Architecture-Dependent Constraints: Critical Safeguards to Carcinogenesis. **2022**, 23, 8622
- 100 Block copolymer nanopatterns affect cell spreading: Stem versus cancer bone cells. **2022**, 219, 112774 o
- 99 Laponite intercalated biomimetic multilayer coating prevents glucocorticoids induced orthopedic implant failure. **2023**, 22, 60-73 o
- 98 Chapter 5. Geometric Cues for Directing Cell Fate. **2022**, 85-109 o
- 97 Mechanical stimuli in lung regeneration. **2022**, 153-168 o
- 96 Static and photoresponsive dynamic materials to dissect physical regulation of cellular functions. o
- 95 Chapter 1. An Introduction to Material-based Mechanobiology. **2022**, 1-20 o
- 94 Incorporate inorganic elements onto titanium-based implant surface by one-step plasma electrolytic oxidation: an efficient method to enhance osteogenesis. o
- 93 β -Actinin-4 recruits Shp2 into focal adhesions to potentiate ROCK2 activation in podocytes. **2022**, 5, e202201557i
- 92 The actin cytoskeleton-MRTF/SRF cascade transduces cellular physical niche cues to entrain circadian clock. o

91	Adipose Tissue Development Relies on Coordinated Extracellular Matrix Remodeling, Angiogenesis, and Adipogenesis. 2022 , 10, 2227	1
90	Volumetric Imaging of Human Mesenchymal Stem Cells (hMSCs) for Non-Destructive Quantification of 3D Cell Culture Growth.	0
89	Dental implants with electrochemical nanopattern formation to increase osseointegration. 2022 ,	0
88	A Tissue Engineering Acoustophoretic (TEA) Set-up for the Enhanced Osteogenic Differentiation of Murine Mesenchymal Stromal Cells (mMSCs). 2022 , 23, 11473	1
87	Plant Tissue Parenchyma and Vascular Bundles Selectively Regulate Stem Cell Mechanosensing and Differentiation.	0
86	Metal Ion Doping of Alginate-Based Surface Coatings Induces Adipogenesis of Stem Cells.	1
85	Mechanically Robust Hydrogels Facilitating Bone Regeneration through Epigenetic Modulation. 2203734	4
84	Injectable nanoporous microgels generate vascularized constructs and support bone regeneration in critical-sized defects. 2022 , 12,	0
83	Physical and Soluble Cues Enhance Tendon Progenitor Cell Invasion into Injectable Synthetic Hydrogels. 2207556	1
82	Optogenetic Instruction of Cell Fate by Temporal Patterning of Mechanobiological Signals.	0
81	Mechanotransduction in high aspect ratio nanostructured meta-biomaterials: The role of cell adhesion, contractility, and transcriptional factors. 2022 , 100448	0
80	Adipose-derived stem cells with miR-150-5p inhibition laden in hydroxyapatite/tricalcium phosphate ceramic powders promote osteogenesis via regulating Notch3 and activating FAK/ERK and RhoA. 2022 ,	1
79	Geometric Control of Cell Behavior by Biomolecule Nanodistribution.	0
78	A bone-on-a-chip collagen hydrogel-based model using pre-differentiated adipose-derived stem cells for personalized bone tissue engineering.	1
77	Gaussian curvature-driven direction of cell fate toward osteogenesis with triply periodic minimal surface scaffolds. 2022 , 119,	3
76	Mechanobiology and Applications in Biomaterials for Soft Tissue Repair and Regeneration. 2022 ,	0
75	The synergistic regulation of chondrogenesis by collagen-based hydrogels and cell co-culture. 2022 ,	0
74	Cellular shape reinforces niche to stem cell signaling in the small intestine. 2022 , 8,	1

73	Loss of cytoskeletal proteostasis links dysregulation of cell size and mechanotransduction in mesenchymal stem cell senescence.	o
72	Modeling Obesity-Driven Pancreatic Carcinogenesis—A Review of Current In Vivo and In Vitro Models of Obesity and Pancreatic Carcinogenesis. 2022 , 11, 3170	o
71	SHIP2 controls matrix mineralization by regulation of the RhoA/ROCK pathway and remodeling of the actin cytoskeleton.	o
70	Multiplexed high-throughput immune cell imaging reveals molecular health-associated phenotypes. 2022 , 8,	1
69	Early committed polarization of intracellular tension in response to cell shape determines the osteogenic differentiation of mesenchymal stromal cells. 2022 ,	o
68	?????????????????????????????. 2010 , 63, 146-150	o
67	Nanometer-scale patterning of hard and soft interfaces: from photolithography to molecular-scale design.	o
66	Cytoskeletal and Cytoskeleton-Associated Proteins: Key Regulators of Cancer Stem Cell Properties. 2022 , 15, 1369	o
65	Fluidic Force Microscopy and Atomic Force Microscopy Unveil New Insights into the Interactions of Preosteoblasts with 3D-Printed Submicron Patterns. 2204662	o
64	Lipoplex-functionalized thin-film surface coating based on extracellular matrix components as local gene delivery system to control osteogenic stem cell differentiation. 2201978	o
63	Crystal Growth of 3D Poly(ϵ -caprolactone) Based Bone Scaffolds and Its Effects on the Physical Properties and Cellular Interactions. 2203183	1
62	Installation of click-type functional groups enable the creation of an additive manufactured construct for the osteochondral interface.	o
61	Geometrical analysis identified morphological features of hydrogel-induced cancer stem cells in synovial sarcoma model cells. 2023 , 642, 41-49	o
60	Stemness potency and structural characteristics of thyroid cancer cell lines. 2023 , 241, 154262	o
59	Applications of carbon dots and its modified carbon dots in bone defect repair. 2022 , 16,	o
58	Micro-Topographies Induce Epigenetic Reprogramming and Quiescence in Human Mesenchymal Stem Cells. 2203880	1
57	Mechanobiology: a Landscape for Reinterpreting Stem Cell Heterogeneity and Regenerative Potential in Diseased Tissues.. 2022 , 105875	o
56	On the origin of universal cell shape variability in a confluent epithelial monolayer. 11,	o

- 55 Self-Forming Norbornene-Tetrazine Hydrogels with Independently Tunable Properties. 2200425 ○
- 54 Effects of phase-transited lysozyme on adhesion, migration, and odontogenic differentiation of human dental pulp cells: An in vitro study. ○
- 53 Strontium-Incorporated Carbon Nitride Nanosheets Modulate Intracellular Tension for Reinforced Bone Regeneration. **2022**, 22, 9723-9731 ○
- 52 Apical size and ΔA expression predict adult neural stem cell decisions along lineage progression. ○
- 51 Fiber diameters and parallel patterns: Proliferation and osteogenesis of stem cells. ○
- 50 Heat Shock Protein 27 Is Involved in the Bioactive Glass Induced Osteogenic Response of Human Mesenchymal Stem Cells. **2023**, 12, 224 ○
- 49 A Magneto-Responsive Hydrogel System for the Dynamic Mechano-Modulation of Stem Cell Niche. 2211288 ○
- 48 Changes in the mechanical properties of human mesenchymal stem cells during differentiation. **2023**, 10, 1
- 47 Whole transcriptomic analysis of mesenchymal stem cells cultured in Nichoid micro-scaffolds. 10, ○
- 46 Tailoring the Microenvironment of Cells Towards Osteogenic Differentiation Using Multilayers of Glycosaminoglycans and Growth Factor Immobilization. **2023**, 3-27 ○
- 45 A systematic review on the effects of ROCK inhibitors on proliferation and/or differentiation in human somatic stem cells: A hypothesis that ROCK inhibitors support corneal endothelial healing via acting on the limbal stem cell niche. **2023**, 27, 16-29 ○
- 44 Cell shape and tension alter focal adhesion structure. **2023**, 145, 213277 ○
- 43 Mechanosensitive miR-99b mediates the regulatory effect of matrix stiffness on bone marrow mesenchymal stem cell fate both in vitro and in vivo. **2023**, 7, 016106 ○
- 42 Mechano-responsive hydrogel for direct stem cell manufacturing to therapy. **2023**, 24, 387-400 ○
- 41 Periosteum-inspired in situ CaP generated nanocomposite hydrogels with strong bone adhesion and superior stretchability for accelerated distraction osteogenesis. **2022**, 26, ○
- 40 Cell-material interactions. **2023**, 261-292 ○
- 39 Binary Colloidal Crystals Promote Cardiac Differentiation of Human Pluripotent Stem Cells via Nuclear Accumulation of SETDB1. ○
- 38 Advanced Glycation End Products Effects on Adipocyte Niche Stiffness and Cell Signaling. **2023**, 24, 2261 ○

37	Effect of the Rho-Kinase/ROCK Signaling Pathway on Cytoskeleton Components. 2023 , 14, 272	o
36	Extracellular Matrix (ECM) and Fibrosis in Adipose Tissue: Overview and Perspectives. 4387-4407	o
35	Static and Dynamic: Evolving Biomaterial Mechanical Properties to Control Cellular Mechanotransduction. 2204594	o
34	Cell response to mechanical microenvironment cues via Rho signaling: From mechanobiology to mechanomedicine. 2023 ,	1
33	Biomechanical, biophysical and biochemical modulators of cytoskeletal remodelling and emergent stem cell lineage commitment. 2023 , 6,	1
32	Physical and biological advances in endothelial cell-based engineered co-culture model systems. 2023 ,	o
31	Recent advances in label-free imaging of cellmatrix adhesions.	o
30	3D Printing of Resilin in Water by Multiphoton Absorption Polymerization. 2210993	1
29	Nanotopography reveals metabolites that maintain the immunomodulatory phenotype of mesenchymal stromal cells. 2023 , 14,	o
28	Porous BCP ceramics with nanoscale whisker structure accelerate bone regeneration by regulating inflammatory response. 2023 , 147, 213313	o
27	Microstructural, mechanical and in vitro biological properties of Ti6Al4V-5Cu alloy fabricated by selective laser melting. 2023 , 200, 112858	o
26	Biophysical cues to improve the immunomodulatory capacity of mesenchymal stem cells: The progress and mechanisms. 2023 , 162, 114655	o
25	Function follows form: How cell size is harnessed for developmental decisions. 2023 , 102, 151312	o
24	Influence of culture conditions on the secretome of mesenchymal stem cells derived from feline adipose tissue: Proteomics approach. 2023 , 211, 78-86	o
23	Toward osteomimetic formation of calcium phosphate coatings with carbonated hydroxyapatite. 2023 , 149, 213403	o
22	Biointerface Coatings With Structural and Biochemical Properties Modifications of Biomaterials. 2023 , 10,	o
21	How Mechanical and Physicochemical Material Characteristics Influence Adipose-Derived Stem Cell Fate. 2023 , 24, 3551	o
20	Mechanical stimulation promotes MSCs healing the lesion of intervertebral disc annulus fibrosus. 11,	o

- 19 Cytochalasin B Influences Cytoskeletal Organization and Osteogenic Potential of Human Wharton's Jelly Mesenchymal Stem Cells. **2023**, 16, 289 ○
- 18 Innovative regenerative strategy for reconstructing breast defect: Gas-foamed gelatin methacryloyl scaffolds combined with human adipose-derived stem cell spheroids. **2023**, 31, 101772 ○
- 17 Pattern formation, structure and functionalities of wrinkled liquid crystal surfaces: A soft matter biomimicry platform. 3, ○
- 16 A Wrong Fate Decision in Adipose Stem Cells upon Obesity. **2023**, 12, 662 ○
- 15 Bioengineering liver tissue by repopulation of decellularised scaffolds. 15, 151-179 ○
- 14 Cell-extracellular matrix mechanotransduction in 3D. 1 ○
- 13 KIBRA upregulation increases susceptibility to podocyte injury and glomerular disease progression. **2023**, 8, ○
- 12 Response of mesenchymal stem cells to surface topography of scaffolds and the underlying mechanisms. **2023**, 11, 2550-2567 ○
- 11 In silico evaluation of the mechanical stimulation effect on the regenerative rehabilitation for the articular cartilage local defects. 10, ○
- 10 Modulation of MG-63 Osteogenic Response on Mechano-Bactericidal Micronanostructured Titanium Surfaces. **2023**, 6, 1054-1070 ○
- 9 PDMS Micropatterns Coated with PDA and RGD Induce a Regulatory Macrophage-like Phenotype. **2023**, 14, 673 ○
- 8 Mechanical strain treatment improves nuclear transfer reprogramming efficiency by enhancing chromatin accessibility. **2023**, 18, 807-816 ○
- 7 Bone regeneration strategies based on organelle homeostasis of mesenchymal stem cells. 14, ○
- 6 Elastomeric Pillar Cages Modulate Actomyosin Contractility of Epithelial Microtissues by Substrate Stiffness and Topography. ○
- 5 Volumetric imaging of human mesenchymal stem cells (hMSCs) for non-destructive quantification of 3D cell culture growth. **2023**, 18, e0282298 ○
- 4 Cytoskeletal remodeling defines nucleolar architecture during adipogenesis. ○
- 3 Biology and therapeutic potential of mesenchymal stem cell extracellular vesicles in axial spondyloarthritis. **2023**, 6, ○
- 2 Surface-guided computing to analyze subcellular morphology and membrane-associated signals in 3D. ○

1 Mechanotransduction of mesenchymal stem cells and hemodynamic implications. **2023**, 66, 55 o