Vivek C Mudera

List of Publications by Year
in descending order

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65 papers	3,226 citations	168829 31 h-index	175968 55 g-index
66 all docs	66 docs citations	66 times ranked	4943 citing authors

#	Article	IF	Citations
1	A Systematic Review Examining the Experimental Methodology Behind In Vivo Testing of Hiatus Hernia and Diaphragmatic Hernia Mesh. Journal of Gastrointestinal Surgery, 2022, 26, 684-692.	0.9	2
2	Evaluating Oxygen Tensions Related to Bone Marrow and Matrix for MSC Differentiation in 2D and 3D Biomimetic Lamellar Scaffolds. International Journal of Molecular Sciences, 2021, 22, 4010.	1.8	8
3	Neuregulin 1 Drives Morphological and Phenotypical Changes in C2C12 Myotubes: Towards De Novo Formation of Intrafusal Fibres In Vitro. Frontiers in Cell and Developmental Biology, 2021, 9, 760260.	1.8	1
4	A Novel Tenorrhaphy Suture Technique with Tissue Engineered Collagen Graft to Repair Large Tendon Defects. Journal of Visualized Experiments, 2021, , .	0.2	0
5	The mechanobiology of tendon fibroblasts under static and uniaxial cyclic load in a 3D tissue engineered model mimicking native extracellular matrix. Journal of Tissue Engineering and Regenerative Medicine, 2020, 14, 135-146.	1.3	24
6	Hyaluronan derived nanoparticle for simvastatin delivery: evaluation of simvastatin induced myotoxicity in tissue engineered skeletal muscle. Biomaterials Science, 2020, 8, 302-312.	2.6	9
7	Generating intrafusal skeletal muscle fibres in vitro: Current state of the art and future challenges. Journal of Tissue Engineering, 2020, 11, 204173142098520.	2.3	10
8	Engineering of a Functional Tendon Using Collagen As a Natural Polymer. ACS Biomaterials Science and Engineering, 2019, 5, 5218-5228.	2.6	9
9	Scalable 3D Printed Molds for Human Tissue Engineered Skeletal Muscle. Frontiers in Bioengineering and Biotechnology, 2019, 7, 20.	2.0	48
10	Modelling multi-scale cellâ€“tissue interaction of tissue-engineered muscle constructs. Journal of Tissue Engineering, 2018, 9, 204173141878714.	2.3	12
11	An Assessment of Myotube Morphology, Matrix Deformation, and Myogenic mRNA Expression in Custom-Built and Commercially Available Engineered Muscle Chamber Configurations. Frontiers in Physiology, 2018, 9, 483.	1.3	14
12	Demineralization–remineralization dynamics in teeth and bone. International Journal of Nanomedicine, 2016, Volume 11, 4743-4763.	3.3	433
13	Creating Interactions between Tissue-Engineered Skeletal Muscle and the Peripheral Nervous System. Cells Tissues Organs, 2016, 202, 143-158.	1.3	37
14	Neuromuscular Junction Formation in Tissue-Engineered Skeletal Muscle Augments Contractile Function and Improves Cytoskeletal Organization. Tissue Engineering - Part A, 2015, 21, 2595-2604.	1.6	63
15	Tissue-engineered collagen grafts to treat large tendon defects. Regenerative Medicine, 2014, 9, 249-251.	0.8	5
16	Effects of photochemical riboflavin-mediated crosslinks on the physical properties of collagen constructs and fibrils. Journal of Materials Science: Materials in Medicine, 2014, 25, 11-21.	1.7	57
17	Less is more: New biomimetic approach to control spatial and temporal cell loading for tissue engineering. Journal of Biomedical Materials Research - Part A, 2014, 102, 4108-4117.	2.1	3
18	Laminin promotes vascular network formation in 3D in vitro collagen scaffolds by regulating VEGF uptake. Experimental Cell Research, 2014, 327, 68-77.	1.2	54

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19	A review on the use of cell therapy in the treatment of tendon disease and injuries. Journal of Tissue Engineering, 2014, 5, 204173141454967.	2.3	54
20	Collagen â€" Emerging collagen based therapies hit the patient. Advanced Drug Delivery Reviews, 2013, 65, 429-456.	6.6	249
21	Factors affecting the structure and maturation of human tissue engineered skeletal muscle. Biomaterials, 2013, 34, 5759-5765.	5.7	69
22	The mechanical environment in dupuytren's contracture determines cell contractility and associated MMPâ€mediated matrix remodeling. Journal of Orthopaedic Research, 2013, 31, 328-334.	1.2	13
23	Development of a Surgically Optimized Graft Insertion Suture Technique to Accommodate a Tissue-Engineered TendonIn Vivo. BioResearch Open Access, 2013, 2, 327-335.	2.6	18
24	Adipose-Derived Stem Cells Inhibit the Contractile Myofibroblast in DupuytrenÊ¼s Disease. Plastic and Reconstructive Surgery, 2013, 132, 1139-1148.	0.7	44
25	Modelling in vivo skeletal muscle ageing in vitro using threeâ€dimensional bioengineered constructs. Aging Cell, 2012, 11, 986-995.	3.0	62
26	A Rapid Fabricated Living Dermal Equivalent for Skin Tissue Engineering: An In Vivo Evaluation in an Acute Wound Model. Tissue Engineering - Part A, 2012, 18, 353-361.	1.6	53
27	Spatiotemporal Dynamics of Re-Innervation and Hyperinnervation Patterns by Uninjured CGRP Fibers in the Rat Foot Sole Epidermis after Nerve Injury. Molecular Pain, 2012, 8, 1744-8069-8-61.	1.0	50
28	Characterization and optimization of a simple, repeatable system for the long term in vitro culture of aligned myotubes in 3D. Journal of Cellular Biochemistry, 2012, 113, 1044-1053.	1.2	73
29	The primordium of a biological joint replacement: Coupling of two stem cell pathways in biphasic ultrarapid compressed gel niches. Journal of Cranio-Maxillo-Facial Surgery, 2011, 39, 380-386.	0.7	25
30	First implantable device for hypoxia-mediated angiogenic induction. Journal of Controlled Release, 2011, 153, 217-224.	4.8	27
31	Shear-aggregated fibronectin with anti-adhesive properties. Journal of Tissue Engineering and Regenerative Medicine, 2011, 5, 20-31.	1.3	12
32	Mechanisms of structure generation during plastic compression of nanofibrillar collagen hydrogel scaffolds: towards engineering of collagen. Journal of Tissue Engineering and Regenerative Medicine, 2011, 5, 505-519.	1.3	31
33	High-density collagen gel tubes as a matrix for primary human bladder smooth muscle cells. Biomaterials, 2011, 32, 1543-1548.	5.7	49
34	Evolution of oxygen utilization in multicellular organisms and implications for cell signalling in tissue engineering. Journal of Tissue Engineering, 2011, 2, 204173141143236.	2.3	81
35	Controlling physiological angiogenesis by hypoxia-induced signaling. Journal of Controlled Release, 2010, 146, 309-317.	4.8	27
36	The effect of cell density on the maturation and contractile ability of muscle derived cells in a 3D tissueâ€engineered skeletal muscle model and determination of the cellular and mechanical stimuli required for the synthesis of a postural phenotype. Journal of Cellular Physiology, 2010, 225, 646-653.	2.0	53

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37	Identification of Key Factors in Deep O₂ Cell Perfusion for Vascular Tissue Engineering. International Journal of Artificial Organs, 2009, 32, 318-328.	0.7	13
38	Guiding cell migration in 3D: A collagen matrix with graded directional stiffness. Cytoskeleton, 2009, 66, 121-128.	4.4	207
39	Host muscle cell infiltration in cell-seeded plastic compressed collagen constructs. Journal of Tissue Engineering and Regenerative Medicine, 2009, 3, 72-75.	1.3	2
40	Close dependence of fibroblast proliferation on collagen scaffold matrix stiffness. Journal of Tissue Engineering and Regenerative Medicine, 2009, 3, 77-84.	1.3	253
41	Interface integration of layered collagen scaffolds with defined matrix stiffness: implications for sheet-based tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2009, 3, 230-241.	1.3	26
42	Force generation and protease gene expression in organotypic co-cultures of fibroblasts and keratinocytes. Journal of Tissue Engineering and Regenerative Medicine, 2009, 3, 647-650.	1.3	7
43	Transforming Growth Factor-Î²1 Stimulation Enhances Dupuytren's Fibroblast Contraction in Response to Uniaxial Mechanical Load Within a 3-Dimensional Collagen Gel. Journal of Hand Surgery, 2009, 34, 1102-1110.	0.7	31
44	A Poly(Lactic Acid-Co-Caprolactone)â€“Collagen Hybrid for Tissue Engineering Applications. Tissue Engineering - Part A, 2009, 15, 1667-1675.	1.6	47
45	Muscle Tissue Engineering. , 2009, , 243-253.		2
46	Synergy between myogenic and non-myogenic cells in a 3D tissue-engineered craniofacial skeletal muscle construct. Journal of Tissue Engineering and Regenerative Medicine, 2008, 2, 408-417.	1.3	56
47	Matrix stiffness and serum concentration effects matrix remodelling and ECM regulatory genes of human bone marrow stem cells. Journal of Tissue Engineering and Regenerative Medicine, 2008, 2, 97-105.	1.3	29
48	A Novel Biomimetic Material for Engineering Postsurgical Adhesion Using the Injured Digital Flexor Tendonâ€“Synovial Complex as an In Vivo Model. Plastic and Reconstructive Surgery, 2008, 121, 781-793.	0.7	13
49	Ultra-rapid engineered collagen constructs tested in anin vivo nursery site. Journal of Tissue Engineering and Regenerative Medicine, 2007, 1, 192-198.	1.3	54
50	Spatial differences of cellular origins andin vivo hypoxia modify contractile properties of pulmonary artery smooth muscle cells: lessons for arterial tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2007, 1, 287-295.	1.3	7
51	Fabricating tissues: Analysis of farming versus engineering strategies. Biotechnology and Bioprocess Engineering, 2007, 12, 9-14.	1.4	24
52	The origins and regulation of tissue tension: Identification of collagen tension-fixation process in vitro. Experimental Cell Research, 2006, 312, 423-433.	1.2	55
53	In SituMonitoring of Tendon Structural Changes by Elastic Scattering Spectroscopy: Correlation with Changes in Collagen Fibril Diameter and Crimp. Tissue Engineering, 2006, 12, 1821-1831.	4.9	21
54	In Situ Monitoring of Tendon Structural Changes by Elastic Scattering Spectroscopy: Correlation with Changes in Collagen Fibril Diameter and Crimp. Tissue Engineering, 2006, .	4.9	0

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55	5-Fluorouracil Selectively Inhibits Collagen Synthesis. Plastic and Reconstructive Surgery, 2005, 116, 209-221.	0.7	54
56	A three-dimensional in vitro model system to study the adaptation of craniofacial skeletal muscle following mechanostimulation. European Journal of Oral Sciences, 2005, 113, 218-224.	0.7	36
57	Mechanical signals and IGF-I gene splicing in vitro in relation to development of skeletal muscle. Journal of Cellular Physiology, 2005, 202, 67-75.	2.0	102
58	Structural changes in loaded equine tendons can be monitored by a novel spectroscopic technique. Journal of Physiology, 2004, 554, 791-801.	1.3	15
59	Soluble phosphate glasses: in vitro studies using human cells of hard and soft tissue origin. Biomaterials, 2004, 25, 2283-2292.	5.7	118
60	The Contractile Properties and Responses to Tensional Loading of Dupuytren???s Disease???Derived Fibroblasts Are Altered: A Cause of the Contracture?. Plastic and Reconstructive Surgery, 2004, 113, 611-621.	0.7	41
61	The early surface cell response to flexor tendon injury. Journal of Hand Surgery, 2003, 28, 221-230.	0.7	41
62	Synovial sheath cell migratory response to flexor tendon injury: an experimental study in rats. Journal of Hand Surgery, 2003, 28, 987-993.	0.7	33
63	Enhanced Fibroblast Contraction of 3D Collagen Lattices and Integrin Expression by TGF-Î²1 and -Î²3: Mechanoregulatory Growth Factors?. Experimental Cell Research, 2002, 274, 310-322.	1.2	81
64	Evidence for sequential utilization of fibronectin, vitronectin, and collagen during fibroblast-mediated collagen contraction. Wound Repair and Regeneration, 2002, 10, 397-408.	1.5	76
65	A study of the cellular response to orientated fibronectin material in healing extensor rat tendon. Journal of Materials Science: Materials in Medicine, 2001, 12, 1005-1011.	1.7	3