Mark E Van Dyke

List of Publications by Year
in descending order

72 papers	5,402 citations	101543 36 h-index	88630 70 g-index
74 all docs	74 docs citations	74 times ranked	6467 citing authors

#	Article	IF	Citations
1	Engineering Complex Tissues. Tissue Engineering, 2006, 12, 3307-3339.	4.6	513
2	A Review of Keratin-Based Biomaterials for Biomedical Applications. Materials, 2010, 3, 999-1014.	2.9	503
3	Controlled fabrication of a biological vascular substitute. Biomaterials, 2006, 27, 1088-1094.	11.4	414
4	Smart biomaterials design for tissue engineering and regenerative medicine. Biomaterials, 2007, 28, 5068-5073.	11.4	347
5	The use of keratin biomaterials derived from human hair for the promotion of rapid regeneration of peripheral nerves. Biomaterials, 2008, 29, 118-128.	11.4	304
6	Some properties of keratin biomaterials: Kerateines. Biomaterials, 2010, 31, 585-593.	11.4	279
7	Tissue-specific extracellular matrix coatings for the promotion of cell proliferation and maintenance of cell phenotype. Biomaterials, 2009, 30, 4021-4028.	11.4	226
8	Biomimetic approaches to modulate cellular adhesion in biomaterials: A review. Acta Biomaterialia, 2013, 9, 5431-5437.	8.3	185
9	Isolation and culture of primary osteocytes from the long bones of skeletally mature and aged mice. BioTechniques, 2012, 52, 361-373.	1.8	168
10	The influence of extracellular matrix derived from skeletal muscle tissue on the proliferation and differentiation of myogenic progenitor cells ex vivo. Biomaterials, 2009, 30, 2393-2399.	11.4	153
11	Peripheral Nerve Regeneration Using a Keratin-Based Scaffold: Long-Term Functional and Histological Outcomes in a Mouse Model. Journal of Hand Surgery, 2008, 33, 1541-1547.	1.6	141
12	Mechanical and biological properties of keratose biomaterials. Biomaterials, 2011, 32, 8205-8217.	11.4	136
13	Bone regeneration with BMP-2 delivered from keratose scaffolds. Biomaterials, 2013, 34, 1644-1656.	11.4	130
14	A naturally derived, cytocompatible, and architecturally optimized scaffold for tendon and ligament regeneration. Biomaterials, 2007, 28, 4321-4329.	11.4	116
15	The effect of human hair keratin hydrogel on early cellular response toÂsciatic nerve injury in a rat model. Biomaterials, 2013, 34, 5907-5914.	11.4	101
16	Hemostatic properties and the role of cell receptor recognition in human hair keratin protein hydrogels. Biomaterials, 2013, 34, 2632-2640.	11.4	101
17	Regenerative Medicine as Applied to General Surgery. Annals of Surgery, 2012, 255, 867-880.	4.2	97
18	Keratin hydrogels support the sustained release of bioactive ciprofloxacin. Journal of Biomedical Materials Research - Part A, 2011, 98A, 544-553.	4.0	93

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19	Repair of Peripheral Nerve Defects in Rabbits Using Keratin Hydrogel Scaffolds. Tissue Engineering - Part A, 2011, 17, 1499-1505.	3.1	92
20	A keratin biomaterial gel hemostat derived from human hair: Evaluation in a rabbit model of lethal liver injury. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2009, 90B, 45-54.	3.4	90
21	In vitro response of macrophage polarization to a keratin biomaterial. Acta Biomaterialia, 2014, 10, 3136-3144.	8.3	87
22	A mechanistic investigation of the effect of keratin-based hemostatic agents on coagulation. Biomaterials, 2013, 34, 2492-2500.	11.4	79
23	Healing of Chronic Wounds: An Update of Recent Developments and Future Possibilities. Tissue Engineering - Part B: Reviews, 2019, 25, 429-444.	4.8	63
24	Evaluation of skin regeneration after burns inÂvivo and rescue of cells after thermal stress inÂvitro following treatment with a keratin biomaterial. Journal of Biomaterials Applications, 2014, 29, 26-35.	2.4	58
25	Keratin Gel Filler for Peripheral Nerve Repair in a Rodent Sciatic Nerve Injury Model. Plastic and Reconstructive Surgery, 2012, 129, 67-78.	1.4	57
26	Keratin hydrogel carrier system for simultaneous delivery of exogenous growth factors and muscle progenitor cells. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2016, 104, 864-879.	3.4	57
27	Smooth Muscle Cell Seeding of Decellularized Scaffolds: The Importance of Bioreactor Preconditioning to Development of a More Native Architecture for Tissue-Engineered Blood Vessels. Tissue Engineering - Part A, 2009, 15, 827-840.	3.1	50
28	Mechanisms of hepatocyte attachment to keratin biomaterials. Biomaterials, 2011, 32, 7555-7561.	11.4	50
29	Reduction of ectopic bone growth in critically-sized rat mandible defects by delivery of rhBMP-2 from kerateine biomaterials. Biomaterials, 2014, 35, 3220-3228.	11.4	50
30	Development of a porcine deep partial thickness burn model. Burns, 2013, 39, 311-319.	1.9	48
31	Structureâ€"property relationships of meta-kerateine biomaterials derived from human hair. Acta Biomaterialia, 2012, 8, 274-281.	8.3	47
32	Novel keratin (KeraStatâ„¢) and polyurethane (NanosanÂ®-Sorb) biomaterials are hemostatic in a porcine lethal extremity hemorrhage model. Journal of Biomaterials Applications, 2014, 28, 869-879.	2.4	47
33	A Decellularized Porcine Xenograft-Derived Bone Scaffold for Clinical Use as a Bone Graft Substitute: A Critical Evaluation of Processing and Structure. Journal of Functional Biomaterials, 2018, 9, 45.	4.4	47
34	Keratin biomaterials augment anti-inflammatory macrophage phenotype in vitro. Acta Biomaterialia, 2018, 66, 213-223.	8.3	45
35	Correlation of cell strain in single osteocytes with intracellular calcium, but not intracellular nitric oxide, in response to fluid flow. Journal of Biomechanics, 2010, 43, 1560-1564.	2.1	43
36	Hurdles in Tissue Engineering/Regenerative Medicine Product Commercialization: A Pilot Survey of Governmental Funding Agencies and the Financial Industry. Tissue Engineering - Part A, 2012, 18, 2187-2194.	3.1	43

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37	A Human Hair Keratin Hydrogel Scaffold Enhances Median Nerve Regeneration in Nonhuman Primates: An Electrophysiological and Histological Study. Tissue Engineering - Part A, 2013, 20, 131115063659000.	3.1	34
38	Title is missing!. Journal of Inorganic and Organometallic Polymers, 1998, 8, 111-117.	1.5	30
39	Evaluating the Past, Present, and Future of Regenerative Medicine: A Global View. Tissue Engineering - Part B: Reviews, 2017, 23, 199-210.	4.8	29
40	The Development of a Xenograft-Derived Scaffold for Tendon and Ligament Reconstruction Using a Decellularization and Oxidation Protocol. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2017, 33, 374-386.	2.7	22
41	Binding Interactions of Keratin-Based Hair Fiber Extract to Gold, Keratin, and BMP-2. PLoS ONE, 2015, 10, e0137233.	2.5	21
42	Assessment of Deep Partial Thickness Burn Treatment with Keratin Biomaterial Hydrogels in a Swine Model. BioMed Research International, 2016, 2016, 1-10.	1.9	19
43	Vasoactive Properties of Keratin-Derived Compounds. Microcirculation, 2011, 18, 663-669.	1.8	14
44	A porcine xenograftâ€derived bone scaffold is a biocompatible bone graft substitute: An assessment of cytocompatibility and the alphaâ€Gal epitope. Xenotransplantation, 2019, 26, e12534.	2.8	14
45	Comprehensive characterization of the human pancreatic proteome for bioengineering applications. Biomaterials, 2021, 270, 120613.	11.4	13
46	Effect of Cyclic Strain on Tensile Properties of a Naturally Derived, Decellularized Tendon Scaffold Seeded With Allogeneic Tenocytes and Associated Messenger RNA Expression. Journal of Surgical Orthopaedic Advances, 2013, 22, 224-232.	0.1	13
47	Keratose Hydrogels Promote Vascular Smooth Muscle Differentiation from C-kit-Positive Human Cardiac Stem Cells. Stem Cells and Development, 2017, 26, 888-900.	2.1	12
48	<scp>H</scp>omoâ€•and heteropolymer selfâ€assembly of recombinant trichocytic keratins. Biopolymers, 2017, 107, e23037.	2.4	12
49	The effect of gamma keratose on cell viability inÂvitro after thermal stress and the regulation of cell death pathway-specific gene expression. Biomaterials, 2014, 35, 4646-4655.	11.4	11
50	Enhancing Tissue Engineering and Regenerative Medicine Product Commercialization: The Role of Science in Regulatory Decision-Making for the TE/RM Product Development. Tissue Engineering - Part A, 2015, 21, 2476-2479.	3.1	8
51	Collagen/kerateine multi-protein hydrogels as a thermally stable extracellular matrix for 3D <i>inÂvitro</i> models. International Journal of Hyperthermia, 2021, 38, 830-845.	2.5	8
52	Development and characterization of a biomimetic coating for percutaneous devices. Colloids and Surfaces B: Biointerfaces, 2019, 182, 110351.	5.0	7
53	A keratin-based microparticle for cell delivery. Journal of Biomaterials Applications, 2021, 35, 579-591.	2.4	7
54	Detergent-Free Decellularization of the Human Pancreas for Soluble Extracellular Matrix (ECM) Production. Journal of Visualized Experiments, 2020, , .	0.3	7

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55	Organosiloxane-Cross-Linked Poly(2,6-Dimethyl-1,4-Phenylene Oxide) Network Structures. Journal of Inorganic and Organometallic Polymers, 1998, 8, 119-126.	1.5	6
56	Bench to Business: A Framework to Assess Technology Readiness. Tissue Engineering - Part A, 2013, 19, 2314-2317.	3.1	6
57	Treatment of a Spinal Cord Hemitransection Injury with Keratin Biomaterial Hydrogel Elicits Recovery and Tissue Repair. ISRN Biomaterials, 2014, 2014, 1-9.	0.7	6
58	Awareness of the Role of Science in the FDA Regulatory Submission Process: A Survey of the TERMIS-Americas Membership. Tissue Engineering - Part A, 2014, 20, 1565-1582.	3.1	6
59	Keratose hydrogel for tissue regeneration and drug delivery. Seminars in Cell and Developmental Biology, 2022, 128, 145-153.	5.0	6
60	Activation of Astrocytes <i>in Vitro</i> by Macrophages Polarized with Keratin Biomaterial Treatment. Open Journal of Regenerative Medicine, 2016, 05, 1-13.	0.9	6
61	Effects of Differing Purification Methods on Properties of Keratose Biomaterials. ACS Biomaterials Science and Engineering, 2018, 4, 1316-1323.	5.2	5
62	TRANSDUCTION OF STRAIN TO CELLS SEEDED ONTO SCAFFOLDS EXPOSED TO UNIAXIAL STRETCHING: A THREE DIMENSIONAL FINITE ELEMENT STUDY. Journal of Mechanics in Medicine and Biology, 2012, 12, 1250022.	0.7	3
63	Enhancing Tissue Engineering/Regenerative Medical Product Commercialization: The Role of Science in Regulatory Decision Making for Tissue Engineering/Regenerative Medicine Product Development. Tissue Engineering - Part A, 2013, 19, 2313-2313.	3.1	3
64	A comparative study of materials assembled from recombinant K31 and K81 and extracted human hair keratins. Biomedical Materials (Bristol), 2020, 15, 065006.	3.3	2
65	Hemodynamic recovery after hypovolemic shock with lactated Ringer's and keratin resuscitation fluid (KRF), a novel colloid. Artificial Cells, Nanomedicine and Biotechnology, 2013, 41, 293-303.	2.8	1
66	Success and efficiency of cell seeding in Avian Tendon Xenografts â€" A promising alternative for tendon and ligament reconstruction. Journal of Orthopaedics, 2020, 18, 155-161.	1.3	1
67	Keratin Biomaterials Improve Functional Recovery in a Rat Spinal Cord Injury Model. Spine, 2021, 46, 1055-1062.	2.0	1
68	Total Organ Replacement Using Tissue Engineering. FASEB Journal, 2007, 21, A140.	0.5	1
69	Development, Characterization and Cellâ€Seeding of a Novel Biocompatible Scaffold for Tendon and Ligament Reconstruction. FASEB Journal, 2007, 21, A268.	0.5	1
70	Investigation of low energy conformations of substituted silphenylenes by computational techniques. Computational and Theoretical Polymer Science, 1998, 8, 127-131.	1.1	0
71	How much risk are you prepared to take?. Nature Biotechnology, 2012, 30, 821-824.	17.5	0
72	Smooth Muscle Cell Seeding on Decellularized Porcine Saphenous Vein Scaffolds â€"A Step Towards Functional Tissue Engineered Blood Vessels. FASEB Journal, 2009, 23, 817.2.	0.5	0