Kristyn Masters

List of Publications by Year
in descending order

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76
papers

4,809
citations

109321
35
h-index

95266
68
g-index

77
all docs

77
docs citations

77
times ranked

6253
citing authors

#	Article	IF	Citations
1	Multi-modal Profiling of the Extracellular Matrix of Human Fallopian Tubes and Serous Tubal Intraepithelial Carcinomas. Journal of Histochemistry and Cytochemistry, 2022, 70, 151-168.	2.5	7
2	Multispectral Staining and Analysis of Extracellular Matrix. Methods in Molecular Biology, 2022, 2424, 105-119.	0.9	1
3	Fund Black scientists. Cell, 2021, 184, 561-565.	28.9	107
4	Angiogenic Secretion Profile of Valvular Interstitial Cells Varies With Cellular Sex and Phenotype. Frontiers in Cardiovascular Medicine, 2021, 8, 736303.	2.4	8
5	Engineering the aortic valve extracellular matrix through stages of development, aging, and disease. Journal of Molecular and Cellular Cardiology, 2021, 161, 1-8.	1.9	8
6	Scaffold stiffness influences breast cancer cell invasion via EGFR-linked Mena upregulation and matrix remodeling. Matrix Biology, 2020, 85-86, 80-93.	3.6	56
7	Disease-Inspired Tissue Engineering: Investigation of Cardiovascular Pathologies. ACS Biomaterials Science and Engineering, 2020, 6, 2518-2532.	5.2	12
8	Engineering the Extracellular Matrix to Model the Evolving Tumor Microenvironment. IScience, 2020, 23, 101742.	4.1	28
9	Engineered Collagen Matrices. Bioengineering, 2020, 7, 163.	3.5	33
10	A Mouse Model of Oropharyngeal Papillomavirus-Induced Neoplasia Using Novel Tools for Infection and Nasal Anesthesia. Viruses, 2020, 12, 450.	3.3	12
11	Ten simple rules for women principal investigators during a pandemic. PLoS Computational Biology, 2020, 16, e1008370.	3.2	10
12	Leader cell PLCÎ³1 activation during keratinocyte collective migration is induced by EGFR localization and clustering. Bioengineering and Translational Medicine, 2019, 4, e10138.	7.1	3
13	Design and characterization of a hydrodynamically confined microflow device for applying controlled loads to investigate single-cell mechanics. Microfluidics and Nanofluidics, 2019, 23, 1.	2.2	1
14	Impact of tissue preservation on collagen fiber architecture. Biotechnic and Histochemistry, 2019, 94, 134-144.	1.3	8
15	Creation of disease-inspired biomaterial environments to mimic pathological events in early calcific aortic valve disease. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E363-E371.	7.1	36
16	Engineering Approaches to Study Cellular Decision Making. Annual Review of Biomedical Engineering, 2018, 20, 49-72.	12.3	15
17	Calcific Aortic Valve Disease. Circulation Research, 2017, 120, 604-606.	4.5	29
18	Multiscale Systems Biology Model of Calcific Aortic Valve Disease Progression. ACS Biomaterials Science and Engineering, 2017, 3, 2922-2933.	5.2	10

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19	Robust Generation of Quiescent Porcine Valvular Interstitial Cell Cultures. Journal of the American Heart Association, 2017, 6, .	3.7	36
20	Decoupling the effects of stiffness and fiber density on cellular behaviors via an interpenetrating network of gelatin-methacrylate and collagen. Biomaterials, 2017, 141, 125-135.	11.4	114
21	Ten simple rules for developing a mentorâ€“mentee expectations document. PLoS Computational Biology, 2017, 13, e1005709.	3.2	28
22	Calcific Aortic Valve Disease Is Associated with Layer-Specific Alterations in Collagen Architecture. PLoS ONE, 2016, 11, e0163858.	2.5	50
23	Hierarchy of cellular decisions in collective behavior: Implications for wound healing. Scientific Reports, 2016, 6, 20139.	3.3	27
24	Immobilized epidermal growth factor stimulates persistent, directed keratinocyte migration <i>via</i> activation of PLCÎ³1. FASEB Journal, 2016, 30, 2580-2590.	0.5	9
25	Engineering approaches to study fibrosis in 3-D in vitro systems. Current Opinion in Biotechnology, 2016, 40, 24-30.	6.6	18
26	Development of Aortic Valve Disease in Familial Hypercholesterolemic Swine: Implications for Elucidating Disease Etiology. Journal of the American Heart Association, 2015, 4, e002254.	3.7	21
27	Preliminary in vivo evaluation of a novel intrasaccular cerebral aneurysm occlusion device. Journal of NeuroInterventional Surgery, 2015, 7, 584-590.	3.3	5
28	Î±-5 Laminin Synthesized by Human Pluripotent Stem Cells Promotes Self-Renewal. Stem Cell Reports, 2015, 5, 195-206.	4.8	59
29	Nylon-3 Polymers Active against Drug-Resistant <i>Candida albicans</i> Biofilms. Journal of the American Chemical Society, 2015, 137, 2183-2186.	13.7	123
30	Screening Nylon-3 Polymers, a New Class of Cationic Amphiphiles, for siRNA Delivery. Molecular Pharmaceutics, 2015, 12, 362-374.	4.6	25
31	Influence of substrate composition on human embryonic stem cell differentiation and extracellular matrix production in embryoid bodies. Biotechnology Progress, 2015, 31, 212-219.	2.6	13
32	Wave mice: a new tool in the quest to characterize aortic valvular disease etiologies. Journal of Thoracic Disease, 2015, 7, E332-4.	1.4	0
33	Gene expression profiling of valvular interstitial cells in Rapacz familial hypercholesterolemic swine. Genomics Data, 2014, 2, 261-263.	1.3	3
34	Effect of hyaluronic acid incorporation method on the stability and biological properties of polyurethaneâ€“hyaluronic acid biomaterials. Journal of Materials Science: Materials in Medicine, 2014, 25, 487-498.	3.6	19
35	Structureâ€“Activity Relationships among Antifungal Nylon-3 Polymers: Identification of Materials Active against Drug-Resistant Strains of <i>Candida albicans</i>. Journal of the American Chemical Society, 2014, 136, 4333-4342.	13.7	113
36	Tuning the Biological Activity Profile of Antibacterial Polymers via Subunit Substitution Pattern. Journal of the American Chemical Society, 2014, 136, 4410-4418.	13.7	175

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37	Ternary Nylon-3 Copolymers as Host-Defense Peptide Mimics: Beyond Hydrophobic and Cationic Subunits. Journal of the American Chemical Society, 2014, 136, 14530-14535.	13.7	108
38	Manipulation of valve composition to elucidate the role of collagen in aortic valve calcification. BMC Cardiovascular Disorders, 2014, 14, 29.	1.7	56
39	Nylon-3 Polymers with Selective Antifungal Activity. Journal of the American Chemical Society, 2013, 135, 5270-5273.	13.7	127
40	Effects of Cyclic vs Acyclic Hydrophobic Subunits on the Chemical Structure and Biological Properties of Nylon-3 Copolymers. ACS Macro Letters, 2013, 2, 753-756.	4.8	40
41	Nylon-3 Polymers That Enable Selective Culture of Endothelial Cells. Journal of the American Chemical Society, 2013, 135, 16296-16299.	13.7	35
42	Differential support of cell adhesion and growth by copolymers of polyurethane with hyaluronic acid. Journal of Biomedical Materials Research - Part A, 2013, 101, 2870-2882.	4.0	20
43	A time course investigation of the statin paradox among valvular interstitial cell phenotypes. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 303, H903-H909.	3.2	18
44	Polymer Chain Length Effects on Fibroblast Attachment on Nylon-3-Modified Surfaces. Biomacromolecules, 2012, 13, 1100-1105.	5.4	39
45	Sex-Related Differences in Gene Expression by Porcine Aortic Valvular Interstitial Cells. PLoS ONE, 2012, 7, e39980.	2.5	61
46	Experimental and computational analysis of cellular interactions with nylonâ€3â€bearing substrates. Journal of Biomedical Materials Research - Part A, 2012, 100A, 2750-2759.	4.0	16
47	Characterization of Sex-Related Differences in Valvular Interstitial Cells. , 2012, , .		0
48	Investigation of the Statin Paradox in Different Populations of VICs. , 2012, , .		0
49	Regulation of valvular interstitial cell phenotype and function by hyaluronic acid in 2-D and 3-D culture environments. Matrix Biology, 2011, 30, 70-82.	3.6	51
50	Calcific Aortic Valve Disease: Not Simply a Degenerative Process. Circulation, 2011, 124, 1783-1791.	1.6	699
51	Polyurethane/Dermatan Sulfate Copolymers as Hemocompatible, Nonâ€Biofouling Materials. Macromolecular Bioscience, 2011, 11, 257-266.	4.1	18
52	Covalent Growth Factor Immobilization Strategies for Tissue Repair and Regeneration. Macromolecular Bioscience, 2011, 11, 1149-1163.	4.1	156
53	Role of the Rho pathway in regulating valvular interstitial cell phenotype and nodule formation. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 300, H448-H458.	3.2	52
54	Can valvular interstitial cells become true osteoblasts? A side-by-side comparison. Journal of Heart Valve Disease, 2011, 20, 449-63.	0.5	59

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55	Measurement of single-cell adhesion strength using a microfluidic assay. Biomedical Microdevices, 2010, 12, 443-455.	2.8	65
56	Regulation of valvular interstitial cell calcification by adhesive peptide sequences. Journal of Biomedical Materials Research - Part A, 2010, 93A, 1620-1630.	4.0	52
57	Regulation of keratinocyte signaling and function via changes in epidermal growth factor presentation. Acta Biomaterialia, 2010, 6, 3415-3425.	8.3	32
58	A Hybrid Coil/Polymer Device for Occlusion of Cerebral Aneurysms. Journal of Medical Devices, Transactions of the ASME, 2009, 3, .	0.7	2
59	Regulation of cell signaling and function via changes in growth factor presentation. , 2009, 2009, 1167-71.		4
60	Role of the MAPK/ERK pathway in valvular interstitial cell calcification. American Journal of Physiology - Heart and Circulatory Physiology, 2009, 296, H1748-H1757.	3.2	67
61	Efficacy of Simvastatin Treatment of Valvular Interstitial Cells Varies With the Extracellular Environment. Arteriosclerosis, Thrombosis, and Vascular Biology, 2009, 29, 246-253.	2.4	49
62	Regulation of polyurethane hemocompatibility and endothelialization by tethered hyaluronic acid oligosaccharides. Biomaterials, 2009, 30, 5341-5351.	11.4	108
63	Nylon-3 Copolymers that Generate Cell-Adhesive Surfaces Identified by Library Screening. Journal of the American Chemical Society, 2009, 131, 16779-16789.	13.7	51
64	Regulation of valvular interstitial cell calcification by components of the extracellular matrix. Journal of Biomedical Materials Research - Part A, 2009, 90A, 1043-1053.	4.0	88
65	<i>In vitro</i> Adipogenic Differentiation of Preadipocytes Varies with Differentiation Stimulus, Culture Dimensionality, and Scaffold Composition. Tissue Engineering - Part A, 2009, 15, 3389-3399.	3.1	51
66	The haemocompatibility of polyurethaneâ€“hyaluronic acid copolymers. Biomaterials, 2008, 29, 150-160.	11.4	46
67	Co-Immobilization of Gradient-Patterned Growth Factors for Directed Cell Migration. Annals of Biomedical Engineering, 2008, 36, 2121-2133.	2.5	43
68	Controlled polymerization chemistry to graft architectures that influence cell-material interactions. Acta Biomaterialia, 2007, 3, 151-161.	8.3	25
69	Immobilized gradients of epidermal growth factor promote accelerated and directed keratinocyte migration. Wound Repair and Regeneration, 2007, 15, 847-855.	3.0	48
70	Detection of Antigens in Biologically Complex Fluids with Photografted Whole Antibodies. Analytical Chemistry, 2006, 78, 3144-3151.	6.5	22
71	Crosslinked hyaluronan scaffolds as a biologically active carrier for valvular interstitial cells. Biomaterials, 2005, 26, 2517-2525.	11.4	243
72	Surface Grafted Antibodies:Â Controlled Architecture Permits Enhanced Antigen Detection. Langmuir, 2005, 21, 10907-10911.	3.5	50

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73	Valvular Myofibroblast Activation by Transforming Growth Factor-Î². Circulation Research, 2004, 95, 253-260.	4.5	349
74	Designing scaffolds for valvular interstitial cells: Cell adhesion and function on naturally derived materials. Journal of Biomedical Materials Research Part B, 2004, 71A, 172-180.	3.1	109
75	CELLâ€"MATERIAL INTERACTIONS. Advances in Chemical Engineering, 2004, 29, 7-46.	0.9	26
76	Photocrosslinkable polyvinyl alcohol hydrogels that can be modified with cell adhesion peptides for use in tissue engineering. Biomaterials, 2002, 23, 4325-4332.	11.4	502