

Anna Grosberg

List of Publications by Year in descending order

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46
papers

2,492
citations

393982

19
h-index

288905

40
g-index

47
all docs

47
docs citations

47
times ranked

3692
citing authors

#	ARTICLE	IF	CITATIONS
1	A tissue-engineered jellyfish with biomimetic propulsion. <i>Nature Biotechnology</i> , 2012, 30, 792-797.	9.4	536
2	Ensembles of engineered cardiac tissues for physiological and pharmacological study: Heart on a chip. <i>Lab on A Chip</i> , 2011, 11, 4165.	3.1	452
3	Controlling the contractile strength of engineered cardiac muscle by hierarchal tissue architecture. <i>Biomaterials</i> , 2012, 33, 5732-5741.	5.7	195
4	Muscle on a chip: In vitro contractility assays for smooth and striated muscle. <i>Journal of Pharmacological and Toxicological Methods</i> , 2012, 65, 126-135.	0.3	147
5	Cyclic strain induces dual-mode endothelial-mesenchymal transformation of the cardiac valve. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 19943-19948.	3.3	145
6	Recapitulating maladaptive, multiscale remodeling of failing myocardium on a chip. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 9770-9775.	3.3	133
7	Vascular smooth muscle contractility depends on cell shape. <i>Integrative Biology (United Kingdom)</i> , 2011, 3, 1063-1070.	0.6	110
8	Self-Organization of Muscle Cell Structure and Function. <i>PLoS Computational Biology</i> , 2011, 7, e1001088.	1.5	102
9	Quality Metrics for Stem Cell-Derived Cardiac Myocytes. <i>Stem Cell Reports</i> , 2014, 2, 282-294.	2.3	84
10	The contribution of cellular mechanotransduction to cardiomyocyte form and function. <i>Biomechanics and Modeling in Mechanobiology</i> , 2012, 11, 1227-1239.	1.4	73
11	Dose-dependent intracellular reactive oxygen and nitrogen species (ROS/RNS) production from particulate matter exposure: comparison to oxidative potential and chemical composition. <i>Atmospheric Environment</i> , 2016, 144, 335-344.	1.9	62
12	Modeling of cardiac muscle thin films: Pre-stretch, passive and active behavior. <i>Journal of Biomechanics</i> , 2012, 45, 832-841.	0.9	52
13	Rational Design of Contact Guiding, Neurotrophic Matrices for Peripheral Nerve Regeneration. <i>Annals of Biomedical Engineering</i> , 2003, 31, 1383-1401.	1.3	44
14	Toward improved myocardial maturity in an organ-on-chip platform with immature cardiac myocytes. <i>Experimental Biology and Medicine</i> , 2017, 242, 1643-1656.	1.1	38
15	Integrated platform for functional monitoring of biomimetic heart sheets derived from human pluripotent stem cells. <i>Biomaterials</i> , 2014, 35, 675-683.	5.7	37
16	Core Competencies for Undergraduates in Bioengineering and Biomedical Engineering: Findings, Consequences, and Recommendations. <i>Annals of Biomedical Engineering</i> , 2020, 48, 905-912.	1.3	37
17	Striated myocyte structural integrity: Automated analysis of sarcomeric z-discs. <i>PLoS Computational Biology</i> , 2020, 16, e1007676.	1.5	32
18	Metrics for Assessing Cytoskeletal Orientational Correlations and Consistency. <i>PLoS Computational Biology</i> , 2015, 11, e1004190.	1.5	27

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19	Exome Sequencing Identifies a Novel LMNA Splice-Site Mutation and Multigenic Heterozygosity of Potential Modifiers in a Family with Sick Sinus Syndrome, Dilated Cardiomyopathy, and Sudden Cardiac Death. <i>PLoS ONE</i> , 2016, 11, e0155421.	1.1	26
20	Emergent Global Contractile Force in Cardiac Tissues. <i>Biophysical Journal</i> , 2016, 110, 1615-1624.	0.2	18
21	A Low-Cost Mechanical Stretching Device for Uniaxial Strain of Cells: A Platform for Pedagogy in Mechanobiology. <i>Journal of Biomechanical Engineering</i> , 2018, 140, 081005-081005-9.	0.6	17
22	Effect of Fiber Geometry on Pulsatile Pumping and Energy Expenditure. <i>Bulletin of Mathematical Biology</i> , 2009, 71, 1580-1598.	0.9	15
23	Modeling the macro-structure of the heart: healthy and diseased. <i>Medical and Biological Engineering and Computing</i> , 2009, 47, 301-311.	1.6	13
24	Multiscale Characterization of Engineered Cardiac Tissue Architecture. <i>Journal of Biomechanical Engineering</i> , 2016, 138, .	0.6	10
25	Physiology in Phylogeny: Modeling of Mechanical Driving Forces in Cardiac Development. <i>Heart Failure Clinics</i> , 2008, 4, 247-259.	1.0	9
26	Computational models of heart pumping efficiencies based on contraction waves in spiral elastic bands. <i>Journal of Theoretical Biology</i> , 2009, 257, 359-370.	0.8	9
27	Age of heart disease presentation and dysmorphic nuclei in patients with LMNA mutations. <i>PLoS ONE</i> , 2017, 12, e0188256.	1.1	9
28	Statistical parametrization of cell cytoskeleton reveals lung cancer cytoskeletal phenotype with partial EMT signature. <i>Communications Biology</i> , 2022, 5, 407.	2.0	8
29	Simulating muscular thin films using thermal contraction capabilities in finite element analysis tools. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 63, 326-336.	1.5	7
30	Dupuytren's and Ledderhose Diseases in a Family with LMNA-Related Cardiomyopathy and a Novel Variant in the ASTE1 Gene. <i>Cells</i> , 2017, 6, 40.	1.8	5
31	Exploring cardiac form and function: A length-scale computational biology approach. <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2019, 12, e1470.	6.6	5
32	A Study of Gene Expression, Structure, and Contractility of iPSC-Derived Cardiac Myocytes from a Family with Heart Disease due to LMNA Mutation. <i>Annals of Biomedical Engineering</i> , 2021, 49, 3524-3539.	1.3	5
33	A dynamic double helical band as a model for cardiac pumping. <i>Bioinspiration and Biomimetics</i> , 2009, 4, 026003.	1.5	4
34	Gene expression profiling of fibroblasts in a family with LMNA-related cardiomyopathy reveals molecular pathways implicated in disease pathogenesis. <i>BMC Medical Genetics</i> , 2020, 21, 152.	2.1	4
35	Actively Driven Fluctuations in a Fibrin Network. <i>Frontiers in Physics</i> , 2021, 8, .	1.0	4
36	Methods of Myofibrillogenesis Modeling. <i>Methods in Molecular Biology</i> , 2015, 1299, 75-91.	0.4	4

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37	Databases to Efficiently Manage Medium Sized, Low Velocity, Multidimensional Data in Tissue Engineering. Journal of Visualized Experiments, 2019, , .	0.2	4
38	Quantitative Evaluation of Cardiac Cell Interactions and Responses to Cyclic Strain. Cells, 2021, 10, 3199.	1.8	3
39	The Effect of Cyclic Strain on Human Fibroblasts With Lamin A/C Mutations and Its Relation to Heart Disease. Journal of Biomechanical Engineering, 2020, 142, .	0.6	2
40	In Vitro Tools for Quantifying Structureâ€“Function Relationships in Cardiac Myocyte Cells and Tissues. , 2015, , 15-39.		2
41	An adapted particle swarm optimization algorithm as a model for exploring premyofibril formation. AIP Advances, 2020, 10, 045126.	0.6	1
42	An Energetic Approach to Modeling Cytoskeletal Architecture in Maturing Cardiomyocytes. Journal of Biomechanical Engineering, 2022, 144, .	0.6	0
43	Striated myocyte structural integrity: Automated analysis of sarcomeric z-discs. , 2020, 16, e1007676.		0
44	Striated myocyte structural integrity: Automated analysis of sarcomeric z-discs. , 2020, 16, e1007676.		0
45	Striated myocyte structural integrity: Automated analysis of sarcomeric z-discs. , 2020, 16, e1007676.		0
46	Striated myocyte structural integrity: Automated analysis of sarcomeric z-discs. , 2020, 16, e1007676.		0