Sourav Patnaik

List of Publications by Year
in descending order

44 papers	693 citations	840776 11 h-index	580821 25 g-index
45 all docs	45 docs citations	45 times ranked	1100 citing authors

#	Article	IF	Citations
1	Etiology, pathophysiology and biomarkers of interstitial cystitis/painful bladder syndrome. Archives of Gynecology and Obstetrics, 2017, 295, 1341-1359.	1.7	170
2	Regenerative Potential of Decellularized Porcine Nucleus Pulposus Hydrogel Scaffolds: Stem Cell Differentiation, Matrix Remodeling, and Biocompatibility Studies. Tissue Engineering - Part A, 2013, 19, 952-966.	3.1	65
3	Mitigation of diabetes-related complications in implanted collagen and elastin scaffolds using matrix-binding polyphenol. Biomaterials, 2013, 34, 685-695.	11.4	46
4	Cardiac differentiation of cardiosphere-derived cells in scaffolds mimicking morphology of the cardiac extracellular matrix. Acta Biomaterialia, 2014, 10, 3449-3462.	8.3	45
5	Functional Heart Valve Scaffolds Obtained by Complete Decellularization of Porcine Aortic Roots in a Novel Differential Pressure Gradient Perfusion System. Tissue Engineering - Part C: Methods, 2015, 21, 1284-1296.	2.1	43
6	Mayerâ€“Rokitanskyâ€“KÃ¼sterâ€“Hauser (MRKH) syndrome: A historical perspective. Gene, 2015, 555, 33-40.	2.2	37
7	Pentagalloyl Glucose and Its Functional Role in Vascular Health: Biomechanics and Drug-Delivery Characteristics. Annals of Biomedical Engineering, 2019, 47, 39-59.	2.5	37
8	Characterisation of the mechanical properties of infarcted myocardium in the rat under biaxial tension and uniaxial compression. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 63, 252-264.	3.1	33
9	Impacts of biomedical hashtag-based Twitter campaign: #DHPSP utilization for promotion of open innovation in digital health, patient safety, and personalized medicine. Current Research in Biotechnology, 2021, 3, 146-153.	3.7	15
10	On the Bending Properties of Porcine Mitral, Tricuspid, Aortic, and Pulmonary Valve Leaflets. Journal of Long-Term Effects of Medical Implants, 2015, 25, 41-53.	0.7	15
11	Stress State and Strain Rate Dependence of the Human Placenta. Annals of Biomedical Engineering, 2012, 40, 2255-2265.	2.5	14
12	Biomechanical Restoration Potential of Pentagalloyl Glucose after Arterial Extracellular Matrix Degeneration. Bioengineering, 2019, 6, 58.	3.5	13
13	Experimental aortic aneurysm severity and growth depend on topical elastase concentration and lysyl oxidase inhibition. Scientific Reports, 2022, 12, 99.	3.3	13
14	Experimental Evidence of Mechanical Isotropy in Porcine Lung Parenchyma. Materials, 2015, 8, 2454-2466.	2.9	11
15	Biomechanical Testing and Histologic Examination of Intradermal Skin Closure in Dogs Using Barbed Suture Device and Nonâ€Barbed Monofilament Suture. Veterinary Surgery, 2017, 46, 59-66.	1.0	11
16	A comparative biomechanical analysis of term fetal membranes in human and domestic species. American Journal of Obstetrics and Gynecology, 2011, 204, 365.e25-365.e36.	1.3	10
17	Quantitative Analysis of Tissue Damage Evolution in Porcine Liver With Interrupted Mechanical Testing Under Tension, Compression, and Shear. Journal of Biomechanical Engineering, 2018, 140, .	1.3	10
18	Cerebral aneurysm rupture status classification using statistical and machine learning methods. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2021, 235, 655-662.	1.8	10

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19	Biomechanical properties of acellular scar ECM during the acute to chronic stages of myocardial infarction. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 116, 104342.	3.1	10
20	Mechanical Response of Porcine Liver Tissue under High Strain Rate Compression. Bioengineering, 2019, 6, 49.	3.5	9
21	Influence of Implantation Depth on the Performance of Intracortical Probe Recording Sites. Micromachines, 2021, 12, 1158.	2.9	9
22	Chapter 3: Decellularized Scaffolds: Concepts, Methodologies, and Applications in Cardiac Tissue Engineering and Whole-Organ Regeneration. Frontiers in Nanobiomedical Research, 2014, , 77-124.	0.1	8
23	A Predictive Analysis of Wall Stress in Abdominal Aortic Aneurysms Using a Neural Network Model. Journal of Biomechanical Engineering, 2021, 143, .	1.3	8
24	Establishing Early Functional Perfusion and Structure in Tissue Engineered Cardiac Constructs. Critical Reviews in Biomedical Engineering, 2015, 43, 455-471.	0.9	6
25	Animal Model Dependent Response to Pentagalloyl Glucose in Murine Abdominal Aortic Injury. Journal of Clinical Medicine, 2021, 10, 219.	2.4	6
26	Characterization of Active Electrode Yield for Intracortical Arrays: Awake versus Anesthesia. Micromachines, 2022, 13, 480.	2.9	6
27	Ex Vivo Regional Mechanical Characterization of Porcine Pulmonary Arteries. Experimental Mechanics, 2021, 61, 285-303.	2.0	5
28	Pentagalloyl Glucose-Laden Poly(lactide-co-glycolide) Nanoparticles for the Biomechanical Extracellular Matrix Stabilization of an In Vitro Abdominal Aortic Aneurysm Model. ACS Applied Materials & Interfaces, 2021, 13, 25771-25782.	8.0	5
29	3D Printingâ€"Assisted Rapid Prototyping and Optimization: Development of a Novel Small Intestinal Cannula for Equine Research. 3D Printing and Additive Manufacturing, 2014, 1, 104-106.	2.9	4
30	A canonical correlation analysis of the relationship between clinical attributes and patient-specific hemodynamic indices in adult pulmonary hypertension. Medical Engineering and Physics, 2020, 77, 1-9.	1.7	4
31	Patient-Specific Computational Analysis of Hemodynamics in Adult Pulmonary Hypertension. Annals of Biomedical Engineering, 2021, 49, 3465-3480.	2.5	4
32	Infarcted rat myocardium: Data from biaxial tensile and uniaxial compressive testing and analysis of collagen fibre orientation. Data in Brief, 2016, 8, 1338-1343.	1.0	3
33	A Coupled Experiment-finite Element Modeling Methodology for Assessing High Strain Rate Mechanical Response of Soft Biomaterials. Journal of Visualized Experiments, 2015, , e51545.	0.3	2
34	Cardiac findings in Quarter Horses with heritable equine regional dermal asthenia. Journal of the American Veterinary Medical Association, 2017, 250, 538-547.	0.5	2
35	A Comparative Study of Biomechanical and Geometrical Attributes of Abdominal Aortic Aneurysms in the Asian and Caucasian Populations. Journal of Biomechanical Engineering, 2020, 142, .	1.3	2
36	Pelvic Floor Biomechanics From Animal Models. , 2016, , 131-148.		1

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37	Abstract 485: On the Relative Effectiveness of Machine Learning and Statistical Methods in Predicting Abdominal Aortic Aneurysm Rupture in the Asian Population. Arteriosclerosis, Thrombosis, and Vascular Biology, 2017, 37, .	2.4	1
38	Development of a Finite Element Model for Porcine Scalp. , 2011, , .		0
39	Influence Of Microgravity On Left Ventricular Sphericity: A Finite Element Model Of The Heart. , 2012, , .		0
40	Biomechanical Characterization of Sheep Vaginal Wall Tissue: A Potential Application in Human Pelvic Floor Disorders. , 2012, , .		0
41	Morphological Analysis of the Right Ventricular Endocardial Wall in Pulmonary Hypertension. Journal of Biomechanical Engineering, 2021, 143, .	1.3	0
42	Stress State Dependence of Human Placenta Mechanical Behavior. , 2011, , .		0
43	Abstract 368: Biomechanical Properties of Scar ECM: from the Acute to Chronic Stages of Myocardial Infarction. Circulation Research, 2015, 117, .	4.5	0
44	Morphologic Evaluation of Post-implanted Monofilament Polypropylene Mesh Utilizing a Novel Technique with Scanning Electron Microscopy Quantification. Surgical Technology International, 2015, 26, 169-73.	0.2	0