Devakar R Epari

List of Publications by Year
in descending order

49 papers	3,418 citations	218592 26 h-index	197736 49 g-index
50 all docs	50 docs citations	50 times ranked	4410 citing authors

#	Article	IF	Citations
1	Morphology of bony callus growth in healing of a sheep tibial osteotomy. Injury, 2021, 52, 66-70.	0.7	1
2	Biphasic plating improves the mechanical performance of locked plating for distal femur fractures. Journal of Biomechanics, 2021, 115, 110192.	0.9	15
3	Can Optimizing the Mechanical Environment Deliver a Clinically Significant Reduction in Fracture Healing Time?. Biomedicines, 2021, 9, 691.	1.4	10
4	Short-Term Bone Healing Response to Mechanical Stimulationâ€"A Case Series Conducted on Sheep. Biomedicines, 2021, 9, 988.	1.4	5
5	Scaffold-guided bone regeneration in large volume tibial segmental defects. Bone, 2021, 153, 116163.	1.4	29
6	Programable Active Fixator System for Systematic In Vivo Investigation of Bone Healing Processes. Sensors, 2021, 21, 17.	2.1	7
7	Development of Surgical Tools and Procedures for Experimental Preclinical Surgery Using Computer Simulations And 3D Printing. International Journal of Online and Biomedical Engineering, 2020, 16, 183.	0.9	3
8	Biphasic Plating â€" In vivo study of a novel fixation concept to enhance mechanobiological fracture healing. Injury, 2020, 51, 1751-1758.	0.7	9
9	Early mechanical stimulation only permits timely bone healing in sheep. Journal of Orthopaedic Research, 2018, 36, 1790-1796.	1.2	30
10	Computational simulation of bone fracture healing under inverse dynamisation. Biomechanics and Modeling in Mechanobiology, 2017, 16, 5-14.	1.4	12
11	A cadaveric biomechanical study comparing the ease of femoral nail insertion: 1.0- vs 1.5-m bow designs. Archives of Orthopaedic and Trauma Surgery, 2017, 137, 663-671.	1.3	10
12	Risk Factors for Knee Injury in Golf: A Systematic Review. Sports Medicine, 2017, 47, 2621-2639.	3.1	17
13	Modulation of fixation stiffness from flexible to stiff in a rat model of bone healing. Monthly Notices of the Royal Astronomical Society: Letters, 2017, 88, 217-222.	1.2	45
14	Monitoring Healing Progression and Characterizing the Mechanical Environment in Preclinical Models for Bone Tissue Engineering. Tissue Engineering - Part B: Reviews, 2016, 22, 47-57.	2.5	15
15	Mechanical testing of internal fixation devices: A theoretical and practical examination of current methods. Journal of Biomechanics, 2015, 48, 3989-3994.	0.9	11
16	Effects of strain artefacts arising from a pre-defined callus domain in models of bone healing mechanobiology. Biomechanics and Modeling in Mechanobiology, 2015, 14, 1129-1141.	1.4	11
17	Mechanical tension as a driver of connective tissue growth in vitro. Medical Hypotheses, 2014, 83, 111-115.	0.8	5
18	Comparison of mechanical and ultrasound elastic modulus of ovine tibial cortical bone. Medical Engineering and Physics, 2014, 36, 869-874.	0.8	14

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19	Autologous vs. allogenic mesenchymal progenitor cells for the reconstruction of critical sized segmental tibial bone defects in aged sheep. Acta Biomaterialia, 2013, 9, 7874-7884.	4.1	90
20	Polycaprolactone scaffold and reduced rhBMP-7 dose for the regeneration of critical-sized defects in sheep tibiae. Biomaterials, 2013, 34, 9960-9968.	5.7	120
21	A case for optimising fracture healing through inverse dynamization. Medical Hypotheses, 2013, 81, 225-227.	0.8	23
22	Bone Regeneration Based on Tissue Engineering Conceptions â€” A 21st Century Perspective. Bone Research, 2013, 1, 216-248.	5.4	625
23	A Tissue Engineering Solution for Segmental Defect Regeneration in Load-Bearing Long Bones. Science Translational Medicine, 2012, 4, 141ra93.	5.8	301
24	Can the contra-lateral limb be used as a control with respect to analyses of bone remodelling?. Medical Engineering and Physics, 2011, 33, 987-992.	0.8	2
25	The mechanical heterogeneity of the hard callus influences local tissue strains during bone healing: A finite element study based on sheep experiments. Journal of Biomechanics, 2011, 44, 517-523.	0.9	28
26	Establishment of a Preclinical Ovine Model for Tibial Segmental Bone Defect Repair by Applying Bone Tissue Engineering Strategies. Tissue Engineering - Part B: Reviews, 2010, 16, 93-104.	2.5	76
27	A model for integrating clinical care and basic science research, and pitfalls of performing complex research projects for addressing a clinical challenge. Injury, 2010, 41, S14-S15.	0.7	0
28	Size and habit of mineral particles in bone and mineralized callus during bone healing in sheep. Journal of Bone and Mineral Research, 2010, 25, 2029-2038.	3.1	61
29	Temporal tissue patterns in bone healing of sheep. Journal of Orthopaedic Research, 2010, 28, 1440-1447.	1.2	36
30	A new approach for assigning bone material properties from CT images into finite element models. Journal of Biomechanics, 2010, 43, 1011-1015.	0.9	75
31	<i>In vitro</i>models for bone mechanobiology: Applications in bone regeneration and tissue engineering. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2010, 224, 1533-1541.	1.0	13
32	Mechanobiology of bone healing and regeneration:<i>in vivo</i>models. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2010, 224, 1543-1553.	1.0	67
33	The challenge of establishing preclinical models for segmental bone defect research. Biomaterials, 2009, 30, 2149-2163.	5.7	351
34	Biaxial cell stimulation: A mechanical validation. Journal of Biomechanics, 2009, 42, 1692-1696.	0.9	39
35	Spatial and temporal variations of mechanical properties and mineral content of the external callus during bone healing. Bone, 2009, 45, 185-192.	1.4	114
36	Pressure, oxygen tension and temperature in the periosteal callus during bone healingâ€”An in vivo study in sheep. Bone, 2008, 43, 734-739.	1.4	55

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37	Influence of Scaffold Stiffness on Subchondral Bone and Subsequent Cartilage Regeneration in an Ovine Model of Osteochondral Defect Healing. American Journal of Sports Medicine, 2008, 36, 2379-2391.	1.9	78
38	Mechanical evaluation of a new minimally invasive device for stabilization of proximal humeral fractures in elderly patients A cadaver study. Monthly Notices of the Royal Astronomical Society: Letters, 2007, 78, 430-435.	1.2	23
39	Mechanical Behavior of Articular Cartilage after Osteochondral Autograft Transfer in an Ovine Model. American Journal of Sports Medicine, 2007, 35, 555-563.	1.9	44
40	Timely Fracture-Healing Requires Optimization of Axial Fixation Stability. Journal of Bone and Joint Surgery - Series A, 2007, 89, 1575-1585.	1.4	106
41	Endochondral ossification in vitro is influenced by mechanical bending. Bone, 2007, 40, 597-603.	1.4	13
42	Timely Fracture-Healing Requires Optimization of Axial Fixation Stability. Journal of Bone and Joint Surgery - Series A, 2007, 89, 1575-1585.	1.4	90
43	Mechanical conditions in the initial phase of bone healing. Clinical Biomechanics, 2006, 21, 646-655.	0.5	90
44	Osteoclastic activity begins early and increases over the course of bone healing. Bone, 2006, 38, 547-554.	1.4	106
45	Instability prolongs the chondral phase during bone healing in sheep. Bone, 2006, 38, 864-870.	1.4	126
46	The patella morphology in trochlear dysplasia â€" A comparative MRI study. Knee, 2006, 13, 145-150.	0.8	144
47	CYR61 (CCN1) Protein Expression during Fracture Healing in an Ovine Tibial Model and Its Relation to the Mechanical Fixation Stability. Journal of Orthopaedic Research, 2006, 24, 254-262.	1.2	46
48	Stress Shielding in Box and Cylinder Cervical Interbody Fusion Cage Designs. Spine, 2005, 30, 908-914.	1.0	34
49	The course of bone healing is influenced by the initial shear fixation stability. Journal of Orthopaedic Research, 2005, 23, 1022-1028.	1.2	173