Liang Gao

List of Publications by Year in descending order

116 papers	4,671 citations	117571 34 h-index	110317 64 g-index
132 all docs	132 docs citations	132 times ranked	4954 citing authors

#	Article	IF	Citations
1	Definition of Early Osteoarthritis. , 2022, , 3-15.		1
2	Potential Gene Therapy Options for Early OA. , 2022, , 321-337.		0
3	Axial alignment is a critical regulator of knee osteoarthritis. Science Translational Medicine, 2022, 14, eabn0179.	5.8	7
4	Surgical therapy in osteoarthritis. Osteoarthritis and Cartilage, 2022, 30, 1019-1034.	0.6	16
5	A highâ€resolution crossâ€species comparative analysis of the subchondral bone provides insight into critical topographical patterns of the osteochondral unit. Clinical and Translational Medicine, 2022, 12, e745.	1.7	2
6	Spinal-pelvic sagittal parameters in patients with gluteal muscle contracture: an imaging study. PeerJ, 2022, 10, e13093.	0.9	2
7	Subchondral Drilling Independent of Drill Hole Number Improves Articular Cartilage Repair and Reduces Subchondral Bone Alterations Compared With Debridement in Adult Sheep. American Journal of Sports Medicine, 2022, 50, 2669-2679.	1.9	3
8	Face masks to prevent transmission of COVID-19: A systematic review and meta-analysis. American Journal of Infection Control, 2021, 49, 900-906.	1.1	163
9	High serum superoxide dismutase activity improves radiation-related quality of life in patients with esophageal squamous cell carcinoma. Clinics, 2021, 76, e2226.	0.6	8
10	Supercapsular percutaneously-assisted total hip (SuperPath) versus mini-incision posterolateral total hip arthroplasty for hip osteoarthritis: a prospective randomized controlled trial. Annals of Translational Medicine, 2021, 9, 392-392.	0.7	12
11	Hydrogelâ€Guided, rAAVâ€Mediated IGFâ€1 Overexpression Enables Longâ€Term Cartilage Repair and Protection against Perifocal Osteoarthritis in a Largeâ€Animal Fullâ€Thickness Chondral Defect Model at One Year In Vivo. Advanced Materials, 2021, 33, e2008451.	11.1	47
12	Osteoarthritis: Novel Molecular Mechanisms Increase Our Understanding of the Disease Pathology. Journal of Clinical Medicine, 2021, 10, 1938.	1.0	44
13	Diagnosis and Surgical Treatment of Human Brucellar Spondylodiscitis. Journal of Visualized Experiments, 2021, , .	0.2	6
14	Comparative anatomy and morphology of the knee in translational models for articular cartilage disorders. Part I: Large animals. Annals of Anatomy, 2021, 235, 151680.	1.0	15
15	The future of basic science in orthopaedics and traumatology: Cassandra or Prometheus?. European Journal of Medical Research, 2021, 26, 56.	0.9	7
16	A Novel Rat Tail Needle Minimally Invasive Puncture Model Using Three-Dimensional Printing for Disk Degeneration and Progressive Osteogenesis Research. Frontiers in Cell and Developmental Biology, 2021, 9, 587399.	1.8	2
17	pNaSS-Grafted PCL Film-Guided rAAV TGF-Î² Gene Therapy Activates the Chondrogenic Activities in Human Bone Marrow Aspirates. Human Gene Therapy, 2021, 32, 895-906.	1.4	4
18	The fabrication of a highly efficient hydrogel based on a functionalized double network loaded with magnesium ion and BMP2 for bone defect synergistic treatment. Materials Science and Engineering C, 2021, 128, 112347.	3.8	17

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19	Comprehensive RNA expression profile of therapeutic adiposeâ€derived mesenchymal stem cells coâ€cultured with degenerative nucleus pulposus cells. Molecular Medicine Reports, 2021, 23, .	1.1	3
20	rAAV-Mediated sox9 Overexpression Improves the Repair of Osteochondral Defects in a Clinically Relevant Large Animal Model Over Time In Vivo and Reduces Perifocal Osteoarthritic Changes. American Journal of Sports Medicine, 2021, 49, 3696-3707.	1.9	13
21	The Illustrative Anatomy and the Histology of the Degenerative Hyaline Cartilage. , 2021, , 11-19.		0
22	Microfracture for cartilage repair in the knee: a systematic review of the contemporary literature. Knee Surgery, Sports Traumatology, Arthroscopy, 2020, 28, 670-706.	2.3	73
23	Supercapsular percutaneously-assisted total hip (SuperPath) versus posterolateral total hip arthroplasty in bilateral osteonecrosis of the femoral head: a pilot clinical trial. BMC Musculoskeletal Disorders, 2020, 21, 2.	0.8	25
24	Thermosensitive Hydrogel Based on PEOâ€“PPOâ€“PEO Poloxamers for a Controlled In Situ Release of Recombinant Adenoâ€Associated Viral Vectors for Effective Gene Therapy of Cartilage Defects. Advanced Materials, 2020, 32, e1906508.	11.1	108
25	Elbow instead of hand: is it more helpful or harmful?. Journal of Public Health, 2020, , .	1.0	0
26	Scaffold-Mediated Gene Delivery for Osteochondral Repair. Pharmaceutics, 2020, 12, 930.	2.0	16
27	Analysis of spatial osteochondral heterogeneity in advanced knee osteoarthritis exposes influence of joint alignment. Science Translational Medicine, 2020, 12, .	5.8	21
28	Smurf1-targeting miR-19b-3p-modified BMSCs combined PLLA composite scaffold to enhance osteogenic activity and treat critical-sized bone defects. Biomaterials Science, 2020, 8, 6069-6081.	2.6	19
29	Investigation of microstructural alterations of the human subchondral bone following microfracture penetration reveals effect of threeâ€dimensional device morphology. Clinical and Translational Medicine, 2020, 10, e230.	1.7	5
30	Cyst formation in the subchondral bone following cartilage repair. Clinical and Translational Medicine, 2020, 10, e248.	1.7	11
31	Letter to the editor regarding â€œThe new AO classification system for intertrochanteric fractures allows better agreement than the original AO classification. An inter- and intra-observer agreement evaluationâ€. Injury, 2020, , .	0.7	0
32	Clinical trial reporting. Lancet, The, 2020, 396, 1488-1489.	6.3	6
33	Efficacy of face mask in preventing respiratory virus transmission: A systematic review and meta-analysis. Travel Medicine and Infectious Disease, 2020, 36, 101751.	1.5	325
34	Total Hip Arthroplasty or Hemiarthroplasty for Hip Fracture. New England Journal of Medicine, 2020, 382, 1072-1074.	13.9	8
35	lncRNA KLF3-AS1 Suppresses Cell Migration and Invasion in ESCC by Impairing miR-185-5p-Targeted KLF3 Inhibition. Molecular Therapy - Nucleic Acids, 2020, 20, 231-241.	2.3	43
36	Enhanced Chondrogenic Differentiation Activities in Human Bone Marrow Aspirates via sox9 Overexpression Mediated by pNaSS-Grafted PCL Film-Guided rAAV Gene Transfer. Pharmaceutics, 2020, 12, 280.	2.0	15

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37	Small-Diameter Subchondral Drilling Improves DNA and Proteoglycan Content of the Cartilaginous Repair Tissue in a Large Animal Model of a Full-Thickness Chondral Defect. Journal of Clinical Medicine, 2020, 9, 1903.	1.0	12
38	Tissue-engineered cartilage products. , 2020, , 1499-1509.		2
39	Pleomorphic rhabdomyosarcoma of the spermatic cord and a secondary hydrocele testis: A case report. World Journal of Clinical Cases, 2020, 8, 2641-2646.	0.3	2
40	Retroperitoneal vs transperitoneal laparoscopic lithotripsy of 20-40 mm renal stones within horseshoe kidneys. World Journal of Clinical Cases, 2020, 8, 4753-4762.	0.3	1
41	Gene Therapy for Osteoarthritis Treatment and Joint Preservation. International Journal of Recent Surgical and Medical Sciences, 2019, 05, 002-003.	0.1	0
42	Establishment and Initial Testing of a Medium-Sized, Surgically Feasible Animal Model for Brucellar Spondylodiscitis: A Preliminary Study. BioMed Research International, 2019, 2019, 1-8.	0.9	2
43	Association of Nicotine with Osteochondrogenesis and Osteoarthritis Development: The State of the Art of Preclinical Research. Journal of Clinical Medicine, 2019, 8, 1699.	1.0	5
44	Topographic modeling of early human osteoarthritis in sheep. Science Translational Medicine, 2019, 11, .	5.8	31
45	Advances in modern osteotomies around the knee. Journal of Experimental Orthopaedics, 2019, 6, 9.	0.8	41
46	Feasibility of T2 Mapping and Magnetic Transfer Ratio for Diagnosis of Intervertebral Disc Degeneration at the Cervicothoracic Junction: A Pilot Study. BioMed Research International, 2019, 2019, 1-9.	0.9	5
47	An overview of thermal necrosis: present and future. Current Medical Research and Opinion, 2019, 35, 1555-1562.	0.9	41
48	Future Aspects of Clinical Osteoarthritis Therapies in the Continuum of Translational Research. Zeitschrift Fur Orthopadie Und Unfallchirurgie, 2019, 157, 629-643.	0.4	2
49	Asymptomatic focal calcium pyrophosphate crystal deposition within partially failed repair tissue after matrix-assisted autologous chondrocyte implantation. Knee Surgery, Sports Traumatology, Arthroscopy, 2019, 27, 1939-1942.	2.3	1
50	Biomaterial-guided delivery of gene vectors for targeted articular cartilage repair. Nature Reviews Rheumatology, 2019, 15, 18-29.	3.5	92
51	Autologous Matrix-Induced Chondrogenesis: A Systematic Review of the Clinical Evidence. American Journal of Sports Medicine, 2019, 47, 222-231.	1.9	77
52	Translational applications of photopolymerizable hydrogels for cartilage repair. Journal of Experimental Orthopaedics, 2019, 6, 47.	0.8	25
53	CircRNA_100367 regulated the radiation sensitivity of esophageal squamous cell carcinomas through miR-217/Wnt3 pathway. Aging, 2019, 11, 12412-12427.	1.4	105
54	Human Wharton's Jelly Cells Activate Degenerative Nucleus Pulposus CellsIn Vitro. Tissue Engineering - Part A, 2018, 24, 1035-1043.	1.6	8

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55	Reliable landmarks for precise topographical analyses of pathological structural changes of the ovine tibial plateau in 2-D and 3-D subspaces. Scientific Reports, 2018, 8, 75.	1.6	12
56	Current Evidence of Adult Stem Cells to Enhance Anterior Cruciate Ligament Treatment: A Systematic Review of Animal Trials. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2018, 34, 331-340.e2.	1.3	24
57	Effective Remodelling of Human Osteoarthritic Cartilage by sox9 Gene Transfer and Overexpression upon Delivery of rAAV Vectors in Polymeric Micelles. Molecular Pharmaceutics, 2018, 15, 2816-2826.	2.3	29
58	Sustained spatiotemporal release of TGFâ€Î²1 confers enhanced very early chondrogenic differentiation during osteochondral repair in specific topographic patterns. FASEB Journal, 2018, 32, 5298-5311.	0.2	16
59	The Osteochondral Unit: The Importance of the Underlying Subchondral Bone. , 2018, , 13-22.		5
60	Subchondral drilling for articular cartilage repair: a systematic review of translational research. DMM Disease Models and Mechanisms, 2018, 11, .	1.2	37
61	Aberrantly expressed messengerÂRNAs and long noncoding RNAs in degenerative nucleus pulposus cells co-cultured with adipose-derived mesenchymal stem cells. Arthritis Research and Therapy, 2018, 20, 182.	1.6	14
62	Quantitative magnetic resonance imaging for diagnosis of intervertebral disc degeneration of the cervico-thoracic junction: a pilot study. American Journal of Translational Research (discontinued), 2018, 10, 925-935.	0.0	6
63	Surgical anatomy of medial open-wedge high tibial osteotomy: crucial steps and pitfalls. Knee Surgery, Sports Traumatology, Arthroscopy, 2017, 25, 3661-3669.	2.3	19
64	Effects of combined rAAV-mediated TGF-Î² and sox9 gene transfer and overexpression on the metabolic and chondrogenic activities in human bone marrow aspirates. Journal of Experimental Orthopaedics, 2017, 4, 4.	0.8	5
65	Animal Models in Cartilage Repair. , 2017, , 189-206.		0
66	Early loss of subchondral bone following microfracture is counteracted by bone marrow aspirate in a translational model of osteochondral repair. Scientific Reports, 2017, 7, 45189.	1.6	20
67	Effects of solid acellular type-I/III collagen biomaterials on in vitro and in vivo chondrogenesis of mesenchymal stem cells. Expert Review of Medical Devices, 2017, 14, 717-732.	1.4	15
68	Three-dimensional-printed upper limb prosthesis for a child with traumatic amputation of right wrist. Medicine (United States), 2017, 96, e9426.	0.4	22
69	rAAV-mediated overexpression of TGF-β via vector delivery in polymeric micelles stimulates the biological and reparative activities of human articular chondrocytes in vitro and in a human osteochondral defect model. International Journal of Nanomedicine, 2017, Volume 12, 6985-6996.	3.3	33
70	Bone Marrow Aspirate Concentrate-Enhanced Marrow Stimulation of Chondral Defects. Stem Cells International, 2017, 2017, 1-13.	1.2	56
71	Early OA: point of no return or a chance for regenerative approaches. Knee Surgery, Sports Traumatology, Arthroscopy, 2016, 24, 1741-1742.	2.3	8
72	Biological Reconstruction of the Osteochondral Unit After Failed Focal Resurfacing of a Chondral Defect in the Knee. American Journal of Sports Medicine, 2016, 44, 2911-2916.	1.9	10

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73	PEO-PPO-PEO Carriers for rAAV-Mediated Transduction of Human Articular Chondrocytes in Vitro and in a Human Osteochondral Defect Model. ACS Applied Materials & Interfaces, 2016, 8, 20600-20613.	4.0	38
74	A novel algorithm for a precise analysis of subchondral bone alterations. Scientific Reports, 2016, 6, 32982.	1.6	11
75	Role of the Subchondral Bone in Articular Cartilage Degeneration and Repair. Journal of the American Academy of Orthopaedic Surgeons, The, 2016, 24, e45-e46.	1.1	24
76	Co-overexpression of TGF-Î² and SOX9 via rAAV gene transfer modulates the metabolic and chondrogenic activities of human bone marrow-derived mesenchymal stem cells. Stem Cell Research and Therapy, 2016, 7, 20.	2.4	24
77	Small-Diameter Awls Improve Articular Cartilage Repair After Microfracture Treatment in a Translational Animal Model. American Journal of Sports Medicine, 2016, 44, 209-219.	1.9	67
78	Chondral and osteochondral operative treatment in early osteoarthritis. Knee Surgery, Sports Traumatology, Arthroscopy, 2016, 24, 1743-1752.	2.3	46
79	Early osteoarthritis of the knee. Knee Surgery, Sports Traumatology, Arthroscopy, 2016, 24, 1753-1762.	2.3	180
80	Advancement of the Subchondral Bone Plate in Translational Models of Osteochondral Repair: Implications for Tissue Engineering Approaches. Tissue Engineering - Part B: Reviews, 2015, 21, 504-520.	2.5	22
81	Large animal models in experimental knee sports surgery: focus on clinical translation. Journal of Experimental Orthopaedics, 2015, 2, 9.	0.8	31
82	New trends in articular cartilage repair. Journal of Experimental Orthopaedics, 2015, 2, 8.	0.8	12
83	High resolution MRI imaging at 9.4 Tesla of the osteochondral unit in a translational model of articular cartilage repair. BMC Musculoskeletal Disorders, 2015, 16, 91.	0.8	9
84	Evaluation and analysis of graft hypertrophy by means of arthroscopy, biochemical MRI and osteochondral biopsies in a patient following autologous chondrocyte implantation for treatment of a full-thickness-cartilage defect of the knee. Archives of Orthopaedic and Trauma Surgery, 2015, 135, 819-830.	1.3	11
85	Comprehensive analysis of translational osteochondral repair: Focus on the histological assessment. Progress in Histochemistry and Cytochemistry, 2015, 50, 19-36.	5.1	24
86	PEOâ€“PPOâ€“PEO micelles as effective rAAV-mediated gene delivery systems to target human mesenchymal stem cells without altering their differentiation potency. Acta Biomaterialia, 2015, 27, 42-52.	4.1	50
87	Effect of open wedge high tibial osteotomy on the lateral tibiofemoral compartment in sheep. Part III: analysis of the microstructure of the subchondral bone and correlations with the articular cartilage and meniscus. Knee Surgery, Sports Traumatology, Arthroscopy, 2015, 23, 2704-2714.	2.3	35
88	Small Subchondral Drill Holes Improve Marrow Stimulation of Articular Cartilage Defects. American Journal of Sports Medicine, 2014, 42, 2741-2750.	1.9	119
89	Enamel matrix derivative inhibits proteoglycan production and articular cartilage repair, delays the restoration of the subchondral bone and induces changes of the synovial membrane in a lapine osteochondral defect modelin vivo. Journal of Tissue Engineering and Regenerative Medicine, 2014, 8, 41-49.	1.3	6
90	Effect of open wedge high tibial osteotomy on the lateral tibiofemoral compartment in sheep. Part II: standard and overcorrection do not cause articular cartilage degeneration. Knee Surgery, Sports Traumatology, Arthroscopy, 2014, 22, 1666-1677.	2.3	33

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91	Transforming Growth Factor Beta-Releasing Scaffolds for Cartilage Tissue Engineering. Tissue Engineering - Part B: Reviews, 2014, 20, 106-125.	2.5	114
92	Translating orthopaedic basic science into clinical relevance. Journal of Experimental Orthopaedics, 2014, 1, 5.	0.8	6
93	A low morbidity surgical approach to the sheep femoral trochlea. BMC Musculoskeletal Disorders, 2013, 14, 5.	0.8	26
94	Direct rAAV SOX9 administration for durable articular cartilage repair with delayed terminal differentiation and hypertrophy in vivo. Journal of Molecular Medicine, 2013, 91, 625-636.	1.7	80
95	Wedge volume and osteotomy surface depend on surgical technique for high tibial osteotomy. Knee Surgery, Sports Traumatology, Arthroscopy, 2013, 21, 127-133.	2.3	41
96	The preclinical sheep model of high tibial osteotomy relating basic science to the clinics: standards, techniques and pitfalls. Knee Surgery, Sports Traumatology, Arthroscopy, 2013, 21, 228-236.	2.3	27
97	Effect of open wedge high tibial osteotomy on the lateral compartment in sheep. Part I: analysis of the lateral meniscus. Knee Surgery, Sports Traumatology, Arthroscopy, 2013, 21, 39-48.	2.3	32
98	Reduction of Sample Size Requirements by Bilateral Versus Unilateral Research Designs in Animal Models for Cartilage Tissue Engineering. Tissue Engineering - Part C: Methods, 2013, 19, 885-891.	1.1	31
99	Improved repair of chondral and osteochondral defects in the ovine trochlea compared with the medial condyle. Journal of Orthopaedic Research, 2013, 31, 1772-1779.	1.2	49
100	Effect of Subchondral Drilling on the Microarchitecture of Subchondral Bone. American Journal of Sports Medicine, 2012, 40, 828-836.	1.9	109
101	Human mesenchymal stem cells overexpressing therapeutic genes: From basic science to clinical applications for articular cartilage repair. Bio-Medical Materials and Engineering, 2012, 22, 197-208.	0.4	19
102	Failed cartilage repair for early osteoarthritis defects: a biochemical, histological and immunohistochemical analysis of the repair tissue after treatment with marrow-stimulation techniques. Knee Surgery, Sports Traumatology, Arthroscopy, 2012, 20, 2315-2324.	2.3	82
103	Reliability, Reproducibility, and Validation of Five Major Histological Scoring Systems for Experimental Articular Cartilage Repair in the Rabbit Model. Tissue Engineering - Part C: Methods, 2012, 18, 329-339.	1.1	55
104	Biological aspects of early osteoarthritis. Knee Surgery, Sports Traumatology, Arthroscopy, 2012, 20, 407-422.	2.3	184
105	Cartilage Repair and Joint Preservation. Deutsches Ärzteblatt International, 2011, 108, 669-77.	0.6	83
106	Epidemiology and imaging of the subchondral bone in articular cartilage repair. Knee Surgery, Sports Traumatology, Arthroscopy, 2010, 18, 463-471.	2.3	38
107	The basic science of the subchondral bone. Knee Surgery, Sports Traumatology, Arthroscopy, 2010, 18, 419-433.	2.3	478
108	The subchondral bone: a new frontier in articular cartilage repair. Knee Surgery, Sports Traumatology, Arthroscopy, 2010, 18, 417-418.	2.3	48

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109	The subchondral bone in articular cartilage repair: current problems in the surgical management. Knee Surgery, Sports Traumatology, Arthroscopy, 2010, 18, 434-447.	2.3	320
110	Nasu-Hakola Disease (PLOSL). Clinical Orthopaedics and Related Research, 2007, 454, 262-269.	0.7	22
111	Restoration of the extracellular matrix in human osteoarthritic articular cartilage by overexpression of the transcription factorSOX9. Arthritis and Rheumatism, 2007, 56, 158-167.	6.7	143
112	Gene Transfer of a Human Insulin-Like Growth Factor I cDNA Enhances Tissue Engineering of Cartilage. Human Gene Therapy, 2002, 13, 1621-1630.	1.4	86
113	Preclinical Models of Brucellar Spondylodiscitis. , 0, , .		0
114	Long Non-Coding RNA DIO3OS Binds to microRNA-130b to Restore Radiosensitivity in Esophageal Squamous Cell Carcinoma by Upregulating PAX9. SSRN Electronic Journal, 0, , .	0.4	0
115	COVID-19 pandemic should be an arena of international cooperation for a shared future. AME Medical Journal, 0, 5, 45-45.	0.4	0
116	Minimally invasive versus traditional inverted â€œLâ€•approach for posterior cruciate ligament avulsion fractures: a retrospective study. PeerJ, 0, 10, e13732.	0.9	0