Wilhelm K Aicher

List of Publications by Year
in descending order

104 papers	4,586 citations	126907 33 h-index	106344 65 g-index
109 all docs	109 docs citations	109 times ranked	5762 citing authors

#	Article	IF	Citations
1	Silica incorporated chitosan-sodium alginate nanocomposite scaffolds for tissue engineering applications. International Journal of Polymeric Materials and Polymeric Biomaterials, 2023, 72, 537-549.	3.4	3
2	Biomimetic development of chitosan and sodium alginateâ€based nanocomposites contains zirconia for tissue engineering applications. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, 110, 1942-1955.	3.4	4
3	Replacing Needle Injection by a Novel Waterjet Technology Grants Improved Muscle Cell Delivery in Target Tissues. Cell Transplantation, 2022, 31, 096368972210809.	2.5	4
4	Elevated Expression of the Immune Checkpoint Ligand CD276 (B7-H3) in Urothelial Carcinoma Cell Lines Correlates Negatively with the Cell Proliferation. International Journal of Molecular Sciences, 2022, 23, 4969.	4.1	5
5	CD24: A Marker for an Extended Expansion Potential of Urothelial Cancer Cell Organoids In Vitro?. International Journal of Molecular Sciences, 2022, 23, 5453.	4.1	7
6	Urinary Tract Tumor Organoids Reveal Eminent Differences in Drug Sensitivities When Compared to 2-Dimensional Culture Systems. International Journal of Molecular Sciences, 2022, 23, 6305.	4.1	8
7	Data-Driven Identification of Biomarkers for In Situ Monitoring of Drug Treatment in Bladder Cancer Organoids. International Journal of Molecular Sciences, 2022, 23, 6956.	4.1	9
8	Rapid and precise delivery of cells in the urethral sphincter complex by a novel needleâ€free waterjet technology. BJU International, 2021, 127, 463-472.	2.5	7
9	Expression patterns of the immune checkpoint ligand CD276 in urothelial carcinoma. BMC Urology, 2021, 21, 60.	1.4	10
10	Treatment of Stress Urinary Incontinence with Muscle Stem Cells and Stem Cell Components: Chances, Challenges and Future Prospects. International Journal of Molecular Sciences, 2021, 22, 3981.	4.1	14
11	Injection of Porcine Adipose Tissue-Derived Stromal Cells by a Novel Waterjet Technology. International Journal of Molecular Sciences, 2021, 22, 3958.	4.1	3
12	Expression of CD146 and Regenerative Cytokines by Human Placenta-Derived Mesenchymal Stromal Cells upon Expansion in Different GMP-Compliant Media. Stem Cells International, 2021, 2021, 1-10.	2.5	2
13	Allogenic Use of Human Placenta-Derived Stromal Cells as a Highly Active Subtype of Mesenchymal Stromal Cells for Cell-Based Therapies. International Journal of Molecular Sciences, 2021, 22, 5302.	4.1	21
14	Novel Techniques to Improve Precise Cell Injection. International Journal of Molecular Sciences, 2021, 22, 6367.	4.1	1
15	Large Animal Models for Investigating Cell Therapies of Stress Urinary Incontinence. International Journal of Molecular Sciences, 2021, 22, 6092.	4.1	4
16	Injection of Porcine Adipose Tissue-Derived Stroma Cells via Waterjet Technology. Journal of Visualized Experiments, 2021, , .	0.3	0
17	A novel waterjet technology for transurethral cystoscopic injection of viable cells in the urethral sphincter complex. Neurourology and Urodynamics, 2020, 39, 594-602.	1.5	13
18	Biomimetic TiO2-chitosan/sodium alginate blended nanocomposite scaffolds for tissue engineering applications. Materials Science and Engineering C, 2020, 110, 110710.	7.3	65

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19	Hydrojet-based delivery of footprint-free iPSC-derived cardiomyocytes into porcine myocardium. Scientific Reports, 2020, 10, 16787.	3.3	4
20	Wet chemical preparation of herbal nanocomposites from medicinal plant leaves for enhanced coating on textile fabrics with multifunctional properties. SN Applied Sciences, 2020, 2, 1.	2.9	7
21	Regenerative medicine and injection therapies in stress urinary incontinence. Nature Reviews Urology, 2020, 17, 151-161.	3.8	20
22	A sensitive refining of in vitro and in vivo toxicological behavior of green synthesized ZnO nanoparticles from the shells of Jatropha curcas for multifunctional biomaterials development. Ecotoxicology and Environmental Safety, 2019, 184, 109621.	6.0	25
23	Antitumour activity of <i>Helix</i> hemocyanin against bladder carcinoma permanent cell lines. Biotechnology and Biotechnological Equipment, 2019, 33, 20-32.	1.3	10
24	Influence of solvents on the changes in structure, purity, and in vitro characteristics of green-synthesized ZnO nanoparticles from Costus igneus. Applied Nanoscience (Switzerland), 2018, 8, 1353-1360.	3.1	13
25	Expression of Desmoglein 2, Desmocollin 3 and Plakophilin 2 in Placenta and Bone Marrow-Derived Mesenchymal Stromal Cells. Stem Cell Reviews and Reports, 2017, 13, 258-266.	5.6	5
26	The geometrical shape of mesenchymal stromal cells measured by quantitative shape descriptors is determined by the stiffness of the biomaterial and by cyclic tensile forces. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 3508-3522.	2.7	38
27	Precise injection of human mesenchymal stromal cells in the urethral sphincter complex of GÃ¶ttingen minipigs without unspecific bulking effects. Neurourology and Urodynamics, 2017, 36, 1723-1733.	1.5	16
28	Establishing and monitoring of urethral sphincter deficiency in a large animal model. World Journal of Urology, 2017, 35, 1977-1986.	2.2	8
29	Comparative phenotypic transcriptional characterization of human full-term placenta-derived mesenchymal stromal cells compared to bone marrow-derived mesenchymal stromal cells after differentiation in myogenic medium. Placenta, 2017, 49, 64-67.	1.5	4
30	Labeling Mesenchymal Stromal Cells with PKH26 or VybrantDil Significantly Diminishes their Migration, but does not affect their Viability, Attachment, Proliferation and Differentiation Capacities. Journal of Tissue Science & Engineering, 2017, 08, .	0.2	6
31	Hematopoietic Stem and Progenitor Cell Expansion in Contact with Mesenchymal Stromal Cells in a Hanging Drop Model Uncovers Disadvantages of 3D Culture. Stem Cells International, 2016, 2016, 1-13.	2.5	27
32	Human Mesenchymal Stromal Cells from Different Sources Diverge in Their Expression of Cell Surface Proteins and Display Distinct Differentiation Patterns. Stem Cells International, 2016, 2016, 1-9.	2.5	134
33	Loss of spatial organization and destruction of the pericellular matrix in early osteoarthritis inÂvivo and in a novel inÂvitro methodology. Osteoarthritis and Cartilage, 2016, 24, 1200-1209.	1.3	41
34	Stretching human mesenchymal stromal cells on stiffness-customized collagen type I generates a smooth muscle marker profile without growth factor addition. Scientific Reports, 2016, 6, 35840.	3.3	25
35	Bone marrow-derived mesenchymal stromal cells differ in their attachment to fibronectin-derived peptides from term placenta-derived mesenchymal stromal cells. Stem Cell Research and Therapy, 2016, 7, 29.	5.5	13
36	Choice of xenogenic-free expansion media significantly influences the myogenic differentiation potential of human bone marrowâ€“derived mesenchymal stromal cells. Cytotherapy, 2016, 18, 344-359.	0.7	21

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37	Regeneration of Degenerated Urinary Sphincter Muscles: Improved Stem Cell-Based Therapies and Novel Imaging Technologies. Cell Transplantation, 2015, 24, 2171-2183.	2.5	8
38	Mesenchymal Stromal Cells for Sphincter Regeneration: Role of Laminin Isoforms upon Myogenic Differentiation. PLoS ONE, 2015, 10, e0137419.	2.5	20
39	Smooth Muscle-Like Cells Generated from Human Mesenchymal Stromal Cells Display Marker Gene Expression and Electrophysiological Competence Comparable to Bladder Smooth Muscle Cells. PLoS ONE, 2015, 10, e0145153.	2.5	26
40	Matrix metalloproteinases in stem cell mobilization. Matrix Biology, 2015, 44-46, 175-183.	3.6	51
41	Mesenchymal stromal cells for sphincter regeneration. Advanced Drug Delivery Reviews, 2015, 82-83, 123-136.	13.7	21
42	Human Placenta-Derived CD146-Positive Mesenchymal Stromal Cells Display a Distinct Osteogenic Differentiation Potential. Stem Cells and Development, 2015, 24, 1558-1569.	2.1	44
43	Labelling and Tracking of Human Mesenchymal Stromal Cells in Preclinical Studies and Large Animal Models of Degenerative Diseases. Current Stem Cell Research and Therapy, 2014, 9, 444-450.	1.3	17
44	Towards a Treatment of Stress Urinary Incontinence: Application of Mesenchymal Stromal Cells for Regeneration of the Sphincter Muscle. Journal of Clinical Medicine, 2014, 3, 197-215.	2.4	15
45	The spatial organisation of joint surface chondrocytes: review of its potential roles in tissue functioning, disease and early, preclinical diagnosis of osteoarthritis. Annals of the Rheumatic Diseases, 2014, 73, 645-653.	0.9	60
46	Maintenance of â€œstem cellâ€• features of cartilage cell sub-populations during in vitro propagation. Journal of Translational Medicine, 2013, 11, 27.	4.4	26
47	Cell-Based Therapy for the Deficient Urinary Sphincter. Current Urology Reports, 2013, 14, 476-487.	2.2	13
48	Bisphosphonates modulate vital functions of human osteoblasts and affect their interactions with breast cancer cells. Breast Cancer Research and Treatment, 2013, 140, 35-48.	2.5	19
49	Low Osteogenic Differentiation Potential of Placenta-Derived Mesenchymal Stromal Cells Correlates with Low Expression of the Transcription Factors Runx2 and Twist2. Stem Cells and Development, 2013, 22, 2859-2872.	2.1	42
50	Identification of an Aptamer Binding to Human Osteogenic-Induced Progenitor Cells. Nucleic Acid Therapeutics, 2013, 23, 44-61.	3.6	29
51	Stress-vs-time signals allow the prediction of structurally catastrophic events during fracturing of immature cartilage and predetermine the biomechanical, biochemical, and structural impairment. Journal of Structural Biology, 2013, 183, 501-511.	2.8	21
52	Release of Matrix Metalloproteinase-8 During Physiological Trafficking and Induced Mobilization of Human Hematopoietic Stem Cells. Stem Cells and Development, 2013, 22, 1307-1318.	2.1	23
53	Laminin-5 and type I collagen promote adhesion and osteogenic differentiation of animal serum-free expanded human mesenchymal stromal cells. Orthopedic Reviews, 2012, 4, e36.	1.3	22
54	Processing of CXCL12 by Different Osteoblast-Secreted Cathepsins. Stem Cells and Development, 2012, 21, 1924-1935.	2.1	25

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55	Phenotypic and functional heterogeneity of human bone marrowâ€“ and amnionâ€derived MSC subsets. Annals of the New York Academy of Sciences, 2012, 1266, 94-106.	3.8	88
56	Modeling chondrocyte patterns by elliptical cluster processes. Journal of Structural Biology, 2012, 177, 447-458.	2.8	13
57	Rheological and biological properties of a hydrogel support for cells intended for intervertebral disc repair. BMC Musculoskeletal Disorders, 2012, 13, 54.	1.9	30
58	Osteoblastâ€secreted factors enhance the expression of dysadherin and CCL2â€dependent migration of renal carcinoma cells. International Journal of Cancer, 2012, 130, 288-299.	5.1	22
59	Human Term Placenta-Derived Mesenchymal Stromal Cells Are Less Prone to Osteogenic Differentiation Than Bone Marrow-Derived Mesenchymal Stromal Cells. Stem Cells and Development, 2011, 20, 635-646.	2.1	88
60	Regeneration of cartilage and bone by defined subsets of mesenchymal stromal cellsâ€"Potential and pitfalls. Advanced Drug Delivery Reviews, 2011, 63, 342-351.	13.7	64
61	Human mesenchymal stromal cells express CD14 crossâ€reactive epitopes. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2011, 79A, 635-645.	1.5	45
62	Onset of preclinical osteoarthritis: The angular spatial organization permits early diagnosis. Arthritis and Rheumatism, 2011, 63, 1637-1647.	6.7	28
63	Remodeling of Articular Cartilage and Subchondral Bone After Bone Grafting and Matrix-Associated Autologous Chondrocyte Implantation for Osteochondritis Dissecans of the Knee. American Journal of Sports Medicine, 2011, 39, 764-773.	4.2	96
64	Cathepsin X is secreted by human osteoblasts, digests CXCL-12 and impairs adhesion of hematopoietic stem and progenitor cells to osteoblasts. Haematologica, 2010, 95, 1452-1460.	3.5	48
65	Animal serum-free expansion and differentiation of human mesenchymal stromal cells. Cytotherapy, 2010, 12, 143-153.	0.7	56
66	Conrad et al. reply. Nature, 2010, 465, E3-E3.	27.8	3
67	Evaluation of the osteogenic and chondrogenic differentiation capacities of equine adipose tissue-derived mesenchymal stem cells. American Journal of Veterinary Research, 2010, 71, 1228-1236.	0.6	79
68	TGF-Î² Enhances the Integrin Î±2Î²1-Mediated Attachment of Mesenchymal Stem Cells to Type I Collagen. Stem Cells and Development, 2010, 19, 645-656.	2.1	35
69	The integrin Â9Â1 on hematopoietic stem and progenitor cells: involvement in cell adhesion, proliferation and differentiation. Haematologica, 2009, 94, 1493-1501.	3.5	68
70	Induction of endostatin expression in meniscal fibrochondrocytes by co-culture with endothelial cells. Archives of Orthopaedic and Trauma Surgery, 2009, 129, 1137-1143.	2.4	16
71	Toll-Like Receptor Engagement Enhances the Immunosuppressive Properties of Human Bone Marrow-Derived Mesenchymal Stem Cells by Inducing Indoleamine-2,3-dioxygenase-1 via Interferon-Î² and Protein Kinase R Â. Stem Cells, 2009, 27, 909-919.	3.2	268
72	Generation of pluripotent stem cells from adult human testis. Nature, 2008, 456, 344-349.	27.8	478

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73	Characterization and functional analysis of osteoblast-derived fibulins in the human hematopoietic stem cell niche. Experimental Hematology, 2008, 36, 1022-1034.	0.4	27
74	DOCA and TGF-Î² Induce Early Growth Response Gene-1 (Egr-1) Expression. Cellular Physiology and Biochemistry, 2008, 22, 465-474.	1.6	15
75	Comparison of marker gene expression in chondrocytes from patients receiving autologous chondrocyte transplantation versus osteoarthritis patients. Arthritis Research and Therapy, 2007, 9, R60.	3.5	39
76	Nanostructured Thermosensitive Polymers with Radical Scavenging Ability. Chemistry - A European Journal, 2007, 13, 569-573.	3.3	27
77	The Active form of Leflunomide, HMR1726, Facilitates TNF-a and IL-17 Induced MMP-1 and MMP-3 Expression. Cellular Physiology and Biochemistry, 2006, 17, 69-78.	1.6	13
78	Attachment to laminin-111 facilitates transforming growth factor Â-induced expression of matrix metalloproteinase-3 in synovial fibroblasts. Annals of the Rheumatic Diseases, 2006, 66, 446-451.	0.9	18
79	Retroviral gene transfer of an antisense construct against membrane type 1 matrix metalloproteinase reduces the invasiveness of rheumatoid arthritis synovial fibroblasts. Arthritis and Rheumatism, 2005, 52, 2010-2014.	6.7	52
80	Influence of standard haemodialysis treatment on transcription of human serum- and glucocorticoid-inducible kinase SGK1 and taurine transporter TAUT in blood leukocytes. Nephrology Dialysis Transplantation, 2005, 20, 768-774.	0.7	7
81	Supramolecular Conjugates of Carbon Nanotubes and DNA by a Solid-State Reaction. Biomacromolecules, 2005, 6, 2919-2922.	5.4	62
82	Synovial Fibroblasts from Rheumatoid Arthritis Patients Differ in their Regulation of IL-16 Gene Activity in Comparison to Osteoarthritis Fibroblasts. Cellular Physiology and Biochemistry, 2004, 14, 293-300.	1.6	13
83	Bone morphogenetic protein (BMP)-2 enhances the expression of type II collagen and aggrecan in chondrocytes embedded in alginate beads. Osteoarthritis and Cartilage, 2004, 12, 559-567.	1.3	174
84	Interleukin-18 is regulated by G protein pathways and protein kinase signals in human fibroblasts. Rheumatology International, 2004, 24, 1-8.	3.0	4
85	Ribozymes that inhibit the production of matrix metalloproteinase 1 reduce the invasiveness of rheumatoid arthritis synovial fibroblasts. Arthritis and Rheumatism, 2004, 50, 1448-1456.	6.7	59
86	Transcription factor early growth response 1 activity up-regulates expression of tissue inhibitor of metalloproteinases 1 in human synovial fibroblasts. Arthritis and Rheumatism, 2003, 48, 348-359.	6.7	26
87	Cartilage Destruction Mediated by Synovial Fibroblasts Does Not Depend on Proliferation in Rheumatoid Arthritis. American Journal of Pathology, 2003, 162, 1549-1557.	3.8	69
88	Enhanced Biocompatibility for SAOS-2 Osteosarcoma Cells by Surface Coating with Hydrophobic Epoxy Resins. Cellular Physiology and Biochemistry, 2003, 13, 155-164.	1.6	32
89	Transcription Factor Egr-1 Activates Collagen Expression in Immortalized Fibroblasts or Fibrosarcoma Cells. Biological Chemistry, 2002, 383, 1845-53.	2.5	23
90	Expression of sentrin, a novel antiapoptotic molecule, at sites of synovial invasion in rheumatoid arthritis. Arthritis and Rheumatism, 2000, 43, 599.	6.7	150

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91	Substrate dependent differences in morphology and elasticity of living osteoblasts investigated by atomic force microscopy. Colloids and Surfaces B: Biointerfaces, 2000, 19, 367-379.	5.0	160
92	Biocompatibility correlation of polymeric materials using human osteosarcoma cells. Die Naturwissenschaften, 2000, 87, 351-354.	1.6	19
93	Serum response elements activate and cAMP responsive elements inhibit expression of transcription factor Egr-1 in synovial fibroblasts of rheumatoid arthritis patients. International Immunology, 1999, 11, 47-61.	4.0	25
94	Efficient generation of transgenic BALB/c mice using BALB/c embryonic stem cells. Journal of Immunological Methods, 1999, 223, 255-260.	1.4	30
95	Interleukin-16, produced by synovial fibroblasts, mediates chemoattraction for CD4+ T lymphocytes in rheumatoid arthritis. European Journal of Immunology, 1998, 28, 2661-2671.	2.9	108
96	Effects of the Ipr/lpr mutation on T and B cell populations in the lamina propria of the small intestine, a mucosal effector site. International Immunology, 1992, 4, 959-968.	4.0	20
97	Selective induction of Th2 cells in murine Peyer's patches by oral immunization. International Immunology, 1992, 4, 433-445.	4.0	121
98	Intestinal intraepithelial lymphocyte T cells are resistant to Ipr gene-induced T cell abnormalities. European Journal of Immunology, 1992, 22, 137-145.	2.9	12
99	Peyer's patch B cells with memory cell characteristics undergo terminal differentiation within 24 hours in response to interleukin-6. Cytokine, 1991, 3, 107-116.	3.2	41
100	Transforming growth factor-Î² enhances secretory component and major histocompatibility complex class I antigen expression on rat IEC-6 intestinal epithelial cells. Cytokine, 1991, 3, 543-550.	3.2	45
101	Regulatory functions for murine intraepithelial lymphocytes in mucosal responses. Immunologic Research, 1991, 10, 324-330.	2.9	10
102	Immunoregulatory Confluence: T Cells, Fc Receptors and Cytokines for IgA Immune Responses. International Reviews of Immunology, 1990, 6, 263-273.	3.3	7
103	Expression of the Collagenolytic and Ras-Induced Cysteine Proteinase Cathepsin L and Proliferation-Associated Oncogenes in Synovial Cells of MRL/I Mice and Patients with Rheumatoid Arthritis. Matrix Biology, 1990, 10, 349-361.	1.7	132
104	A conserved family of nuclear proteins containing structural elements of the finger protein encoded by KrÃ¼ppel, a Drosophila segmentation gene. Cell, 1986, 47, 1025-1032.	28.9	426