

# Wilhelm K Aicher

## List of Publications by Year in descending order

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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	Generation of pluripotent stem cells from adult human testis. <i>Nature</i> , 2008, 456, 344-349.	27.8	478
2	A conserved family of nuclear proteins containing structural elements of the finger protein encoded by KrÄ¼ppel, a <i>Drosophila</i> segmentation gene. <i>Cell</i> , 1986, 47, 1025-1032.	28.9	426
3	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. <i>Stem Cells</i> , 2009, 27, 909-919.	3.2	268
4	Bone morphogenetic protein (BMP)-2 enhances the expression of type II collagen and aggrecan in chondrocytes embedded in alginate beads. <i>Osteoarthritis and Cartilage</i> , 2004, 12, 559-567.	1.3	174
5	Substrate dependent differences in morphology and elasticity of living osteoblasts investigated by atomic force microscopy. <i>Colloids and Surfaces B: Biointerfaces</i> , 2000, 19, 367-379.	5.0	160
6	Expression of sentrin, a novel antiapoptotic molecule, at sites of synovial invasion in rheumatoid arthritis. <i>Arthritis and Rheumatism</i> , 2000, 43, 599.	6.7	150
7	Human Mesenchymal Stromal Cells from Different Sources Diverge in Their Expression of Cell Surface Proteins and Display Distinct Differentiation Patterns. <i>Stem Cells International</i> , 2016, 2016, 1-9.	2.5	134
8	Expression of the Collagenolytic and Ras-Induced Cysteine Proteinase Cathepsin L and Proliferation-Associated Oncogenes in Synovial Cells of MRL/l Mice and Patients with Rheumatoid Arthritis. <i>Matrix Biology</i> , 1990, 10, 349-361.	1.7	132
9	Selective induction of Th2 cells in murine Peyer's patches by oral immunization. <i>International Immunology</i> , 1992, 4, 433-445.	4.0	121
10	Interleukin-16, produced by synovial fibroblasts, mediates chemoattraction for CD4+ T lymphocytes in rheumatoid arthritis. <i>European Journal of Immunology</i> , 1998, 28, 2661-2671.	2.9	108
11	Remodeling of Articular Cartilage and Subchondral Bone After Bone Grafting and Matrix-Associated Autologous Chondrocyte Implantation for Osteochondritis Dissecans of the Knee. <i>American Journal of Sports Medicine</i> , 2011, 39, 764-773.	4.2	96
12	Human Term Placenta-Derived Mesenchymal Stromal Cells Are Less Prone to Osteogenic Differentiation Than Bone Marrow-Derived Mesenchymal Stromal Cells. <i>Stem Cells and Development</i> , 2011, 20, 635-646.	2.1	88
13	Phenotypic and functional heterogeneity of human bone marrow- and amnion-derived MSC subsets. <i>Annals of the New York Academy of Sciences</i> , 2012, 1266, 94-106.	3.8	88
14	Evaluation of the osteogenic and chondrogenic differentiation capacities of equine adipose tissue-derived mesenchymal stem cells. <i>American Journal of Veterinary Research</i> , 2010, 71, 1228-1236.	0.6	79
15	Cartilage Destruction Mediated by Synovial Fibroblasts Does Not Depend on Proliferation in Rheumatoid Arthritis. <i>American Journal of Pathology</i> , 2003, 162, 1549-1557.	3.8	69
16	The integrin Î¹ on hematopoietic stem and progenitor cells: involvement in cell adhesion, proliferation and differentiation. <i>Haematologica</i> , 2009, 94, 1493-1501.	3.5	68
17	Biomimetic TiO2-chitosan/sodium alginate blended nanocomposite scaffolds for tissue engineering applications. <i>Materials Science and Engineering C</i> , 2020, 110, 110710.	7.3	65
18	Regeneration of cartilage and bone by defined subsets of mesenchymal stromal cells—Potential and pitfalls. <i>Advanced Drug Delivery Reviews</i> , 2011, 63, 342-351.	13.7	64

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19	Supramolecular Conjugates of Carbon Nanotubes and DNA by a Solid-State Reaction. <i>Biomacromolecules</i> , 2005, 6, 2919-2922.	5.4	62
20	The spatial organisation of joint surface chondrocytes: review of its potential roles in tissue functioning, disease and early, preclinical diagnosis of osteoarthritis. <i>Annals of the Rheumatic Diseases</i> , 2014, 73, 645-653.	0.9	60
21	Ribozymes that inhibit the production of matrix metalloproteinase 1 reduce the invasiveness of rheumatoid arthritis synovial fibroblasts. <i>Arthritis and Rheumatism</i> , 2004, 50, 1448-1456.	6.7	59
22	Animal serum-free expansion and differentiation of human mesenchymal stromal cells. <i>Cytotherapy</i> , 2010, 12, 143-153.	0.7	56
23	Retroviral gene transfer of an antisense construct against membrane type 1 matrix metalloproteinase reduces the invasiveness of rheumatoid arthritis synovial fibroblasts. <i>Arthritis and Rheumatism</i> , 2005, 52, 2010-2014.	6.7	52
24	Matrix metalloproteinases in stem cell mobilization. <i>Matrix Biology</i> , 2015, 44-46, 175-183.	3.6	51
25	Cathepsin X is secreted by human osteoblasts, digests CXCL-12 and impairs adhesion of hematopoietic stem and progenitor cells to osteoblasts. <i>Haematologica</i> , 2010, 95, 1452-1460.	3.5	48
26	Transforming growth factor- $\beta$ 2 enhances secretory component and major histocompatibility complex class I antigen expression on rat IEC-6 intestinal epithelial cells. <i>Cytokine</i> , 1991, 3, 543-550.	3.2	45
27	Human mesenchymal stromal cells express CD14 cross-reactive epitopes. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2011, 79A, 635-645.	1.5	45
28	Human Placenta-Derived CD146-Positive Mesenchymal Stromal Cells Display a Distinct Osteogenic Differentiation Potential. <i>Stem Cells and Development</i> , 2015, 24, 1558-1569.	2.1	44
29	Low Osteogenic Differentiation Potential of Placenta-Derived Mesenchymal Stromal Cells Correlates with Low Expression of the Transcription Factors Runx2 and Twist2. <i>Stem Cells and Development</i> , 2013, 22, 2859-2872.	2.1	42
30	Peyer's patch B cells with memory cell characteristics undergo terminal differentiation within 24 hours in response to interleukin-6. <i>Cytokine</i> , 1991, 3, 107-116.	3.2	41
31	Loss of spatial organization and destruction of the pericellular matrix in early osteoarthritis in vivo and in a novel in vitro methodology. <i>Osteoarthritis and Cartilage</i> , 2016, 24, 1200-1209.	1.3	41
32	Comparison of marker gene expression in chondrocytes from patients receiving autologous chondrocyte transplantation versus osteoarthritis patients. <i>Arthritis Research and Therapy</i> , 2007, 9, R60.	3.5	39
33	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. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2017, 11, 3508-3522.	2.7	38
34	TGF- $\beta$ 2 Enhances the Integrin $\alpha$ 2 $\beta$ 1-Mediated Attachment of Mesenchymal Stem Cells to Type I Collagen. <i>Stem Cells and Development</i> , 2010, 19, 645-656.	2.1	35
35	Enhanced Biocompatibility for SAOS-2 Osteosarcoma Cells by Surface Coating with Hydrophobic Epoxy Resins. <i>Cellular Physiology and Biochemistry</i> , 2003, 13, 155-164.	1.6	32
36	Efficient generation of transgenic BALB/c mice using BALB/c embryonic stem cells. <i>Journal of Immunological Methods</i> , 1999, 223, 255-260.	1.4	30

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37	Rheological and biological properties of a hydrogel support for cells intended for intervertebral disc repair. <i>BMC Musculoskeletal Disorders</i> , 2012, 13, 54.	1.9	30
38	Identification of an Aptamer Binding to Human Osteogenic-Induced Progenitor Cells. <i>Nucleic Acid Therapeutics</i> , 2013, 23, 44-61.	3.6	29
39	Onset of preclinical osteoarthritis: The angular spatial organization permits early diagnosis. <i>Arthritis and Rheumatism</i> , 2011, 63, 1637-1647.	6.7	28
40	Nanostructured Thermosensitive Polymers with Radical Scavenging Ability. <i>Chemistry - A European Journal</i> , 2007, 13, 569-573.	3.3	27
41	Characterization and functional analysis of osteoblast-derived fibulins in the human hematopoietic stem cell niche. <i>Experimental Hematology</i> , 2008, 36, 1022-1034.	0.4	27
42	Hematopoietic Stem and Progenitor Cell Expansion in Contact with Mesenchymal Stromal Cells in a Hanging Drop Model Uncovers Disadvantages of 3D Culture. <i>Stem Cells International</i> , 2016, 2016, 1-13.	2.5	27
43	Transcription factor early growth response 1 activity up-regulates expression of tissue inhibitor of metalloproteinases 1 in human synovial fibroblasts. <i>Arthritis and Rheumatism</i> , 2003, 48, 348-359.	6.7	26
44	Maintenance of stem cell features of cartilage cell sub-populations during in vitro propagation. <i>Journal of Translational Medicine</i> , 2013, 11, 27.	4.4	26
45	Smooth Muscle-Like Cells Generated from Human Mesenchymal Stromal Cells Display Marker Gene Expression and Electrophysiological Competence Comparable to Bladder Smooth Muscle Cells. <i>PLoS ONE</i> , 2015, 10, e0145153.	2.5	26
46	Serum response elements activate and cAMP responsive elements inhibit expression of transcription factor Egr-1 in synovial fibroblasts of rheumatoid arthritis patients. <i>International Immunology</i> , 1999, 11, 47-61.	4.0	25
47	Processing of CXCL12 by Different Osteoblast-Secreted Cathepsins. <i>Stem Cells and Development</i> , 2012, 21, 1924-1935.	2.1	25
48	Stretching human mesenchymal stromal cells on stiffness-customized collagen type I generates a smooth muscle marker profile without growth factor addition. <i>Scientific Reports</i> , 2016, 6, 35840.	3.3	25
49	A sensitive refining of in vitro and in vivo toxicological behavior of green synthesized ZnO nanoparticles from the shells of <i>Jatropha curcas</i> for multifunctional biomaterials development. <i>Ecotoxicology and Environmental Safety</i> , 2019, 184, 109621.	6.0	25
50	Transcription Factor Egr-1 Activates Collagen Expression in Immortalized Fibroblasts or Fibrosarcoma Cells. <i>Biological Chemistry</i> , 2002, 383, 1845-53.	2.5	23
51	Release of Matrix Metalloproteinase-8 During Physiological Trafficking and Induced Mobilization of Human Hematopoietic Stem Cells. <i>Stem Cells and Development</i> , 2013, 22, 1307-1318.	2.1	23
52	Laminin-5 and type I collagen promote adhesion and osteogenic differentiation of animal serum-free expanded human mesenchymal stromal cells. <i>Orthopedic Reviews</i> , 2012, 4, e36.	1.3	22
53	Osteoblast-secreted factors enhance the expression of dysadherin and CCL2-dependent migration of renal carcinoma cells. <i>International Journal of Cancer</i> , 2012, 130, 288-299.	5.1	22
54	Stress-vs-time signals allow the prediction of structurally catastrophic events during fracturing of immature cartilage and predetermine the biomechanical, biochemical, and structural impairment. <i>Journal of Structural Biology</i> , 2013, 183, 501-511.	2.8	21

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55	Mesenchymal stromal cells for sphincter regeneration. <i>Advanced Drug Delivery Reviews</i> , 2015, 82-83, 123-136.	13.7	21
56	Choice of xenogenic-free expansion media significantly influences the myogenic differentiation potential of human bone marrow-derived mesenchymal stromal cells. <i>Cytotherapy</i> , 2016, 18, 344-359.	0.7	21
57	Allogenic Use of Human Placenta-Derived Stromal Cells as a Highly Active Subtype of Mesenchymal Stromal Cells for Cell-Based Therapies. <i>International Journal of Molecular Sciences</i> , 2021, 22, 5302.	4.1	21
58	Effects of the lpr/lpr mutation on T and B cell populations in the lamina propria of the small intestine, a mucosal effector site. <i>International Immunology</i> , 1992, 4, 959-968.	4.0	20
59	Mesenchymal Stromal Cells for Sphincter Regeneration: Role of Laminin Isoforms upon Myogenic Differentiation. <i>PLoS ONE</i> , 2015, 10, e0137419.	2.5	20
60	Regenerative medicine and injection therapies in stress urinary incontinence. <i>Nature Reviews Urology</i> , 2020, 17, 151-161.	3.8	20
61	Biocompatibility correlation of polymeric materials using human osteosarcoma cells. <i>Die Naturwissenschaften</i> , 2000, 87, 351-354.	1.6	19
62	Bisphosphonates modulate vital functions of human osteoblasts and affect their interactions with breast cancer cells. <i>Breast Cancer Research and Treatment</i> , 2013, 140, 35-48.	2.5	19
63	Attachment to laminin-111 facilitates transforming growth factor $\beta$ -induced expression of matrix metalloproteinase-3 in synovial fibroblasts. <i>Annals of the Rheumatic Diseases</i> , 2006, 66, 446-451.	0.9	18
64	Labelling and Tracking of Human Mesenchymal Stromal Cells in Preclinical Studies and Large Animal Models of Degenerative Diseases. <i>Current Stem Cell Research and Therapy</i> , 2014, 9, 444-450.	1.3	17
65	Induction of endostatin expression in meniscal fibrochondrocytes by co-culture with endothelial cells. <i>Archives of Orthopaedic and Trauma Surgery</i> , 2009, 129, 1137-1143.	2.4	16
66	Precise injection of human mesenchymal stromal cells in the urethral sphincter complex of Göttingen minipigs without unspecific bulking effects. <i>Neurourology and Urodynamics</i> , 2017, 36, 1723-1733.	1.5	16
67	DOCA and TGF- $\beta$ 2 Induce Early Growth Response Gene-1 (Egr-1) Expression. <i>Cellular Physiology and Biochemistry</i> , 2008, 22, 465-474.	1.6	15
68	Towards a Treatment of Stress Urinary Incontinence: Application of Mesenchymal Stromal Cells for Regeneration of the Sphincter Muscle. <i>Journal of Clinical Medicine</i> , 2014, 3, 197-215.	2.4	15
69	Treatment of Stress Urinary Incontinence with Muscle Stem Cells and Stem Cell Components: Chances, Challenges and Future Prospects. <i>International Journal of Molecular Sciences</i> , 2021, 22, 3981.	4.1	14
70	Synovial Fibroblasts from Rheumatoid Arthritis Patients Differ in their Regulation of IL-16 Gene Activity in Comparison to Osteoarthritis Fibroblasts. <i>Cellular Physiology and Biochemistry</i> , 2004, 14, 293-300.	1.6	13
71	The Active form of Leflunomide, HMR1726, Facilitates TNF- $\alpha$ and IL-17 Induced MMP-1 and MMP-3 Expression. <i>Cellular Physiology and Biochemistry</i> , 2006, 17, 69-78.	1.6	13
72	Modeling chondrocyte patterns by elliptical cluster processes. <i>Journal of Structural Biology</i> , 2012, 177, 447-458.	2.8	13

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73	Cell-Based Therapy for the Deficient Urinary Sphincter. <i>Current Urology Reports</i> , 2013, 14, 476-487.	2.2	13
74	Bone marrow-derived mesenchymal stromal cells differ in their attachment to fibronectin-derived peptides from term placenta-derived mesenchymal stromal cells. <i>Stem Cell Research and Therapy</i> , 2016, 7, 29.	5.5	13
75	Influence of solvents on the changes in structure, purity, and in vitro characteristics of green-synthesized ZnO nanoparticles from <i>Costus igneus</i> . <i>Applied Nanoscience (Switzerland)</i> , 2018, 8, 1353-1360.	3.1	13
76	A novel waterjet technology for transurethral cystoscopic injection of viable cells in the urethral sphincter complex. <i>Neurourology and Urodynamics</i> , 2020, 39, 594-602.	1.5	13
77	Intestinal intraepithelial lymphocyte T cells are resistant to <i>lpr</i> gene-induced T cell abnormalities. <i>European Journal of Immunology</i> , 1992, 22, 137-145.	2.9	12
78	Regulatory functions for murine intraepithelial lymphocytes in mucosal responses. <i>Immunologic Research</i> , 1991, 10, 324-330.	2.9	10
79	Antitumour activity of <i>Helix</i> hemocyanin against bladder carcinoma permanent cell lines. <i>Biotechnology and Biotechnological Equipment</i> , 2019, 33, 20-32.	1.3	10
80	Expression patterns of the immune checkpoint ligand CD276 in urothelial carcinoma. <i>BMC Urology</i> , 2021, 21, 60.	1.4	10
81	Data-Driven Identification of Biomarkers for In Situ Monitoring of Drug Treatment in Bladder Cancer Organoids. <i>International Journal of Molecular Sciences</i> , 2022, 23, 6956.	4.1	9
82	Regeneration of Degenerated Urinary Sphincter Muscles: Improved Stem Cell-Based Therapies and Novel Imaging Technologies. <i>Cell Transplantation</i> , 2015, 24, 2171-2183.	2.5	8
83	Establishing and monitoring of urethral sphincter deficiency in a large animal model. <i>World Journal of Urology</i> , 2017, 35, 1977-1986.	2.2	8
84	Urinary Tract Tumor Organoids Reveal Eminent Differences in Drug Sensitivities When Compared to 2-Dimensional Culture Systems. <i>International Journal of Molecular Sciences</i> , 2022, 23, 6305.	4.1	8
85	Immunoregulatory Confluence: T Cells, Fc Receptors and Cytokines for IgA Immune Responses. <i>International Reviews of Immunology</i> , 1990, 6, 263-273.	3.3	7
86	Influence of standard haemodialysis treatment on transcription of human serum- and glucocorticoid-inducible kinase SGK1 and taurine transporter TAUT in blood leukocytes. <i>Nephrology Dialysis Transplantation</i> , 2005, 20, 768-774.	0.7	7
87	Wet chemical preparation of herbal nanocomposites from medicinal plant leaves for enhanced coating on textile fabrics with multifunctional properties. <i>SN Applied Sciences</i> , 2020, 2, 1.	2.9	7
88	Rapid and precise delivery of cells in the urethral sphincter complex by a novel needle-free waterjet technology. <i>BJU International</i> , 2021, 127, 463-472.	2.5	7
89	CD24: A Marker for an Extended Expansion Potential of Urothelial Cancer Cell Organoids In Vitro?. <i>International Journal of Molecular Sciences</i> , 2022, 23, 5453.	4.1	7
90	Labeling Mesenchymal Stromal Cells with PKH26 or VybrantDil Significantly Diminishes their Migration, but does not affect their Viability, Attachment, Proliferation and Differentiation Capacities. <i>Journal of Tissue Science &amp; Engineering</i> , 2017, 08, .	0.2	6

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91	Expression of Desmoglein 2, Desmocollin 3 and Plakophilin 2 in Placenta and Bone Marrow-Derived Mesenchymal Stromal Cells. <i>Stem Cell Reviews and Reports</i> , 2017, 13, 258-266.	5.6	5
92	Elevated Expression of the Immune Checkpoint Ligand CD276 (B7-H3) in Urothelial Carcinoma Cell Lines Correlates Negatively with the Cell Proliferation. <i>International Journal of Molecular Sciences</i> , 2022, 23, 4969.	4.1	5
93	Interleukin-18 is regulated by G protein pathways and protein kinase signals in human fibroblasts. <i>Rheumatology International</i> , 2004, 24, 1-8.	3.0	4
94	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. <i>Placenta</i> , 2017, 49, 64-67.	1.5	4
95	Hydrojet-based delivery of footprint-free iPSC-derived cardiomyocytes into porcine myocardium. <i>Scientific Reports</i> , 2020, 10, 16787.	3.3	4
96	Large Animal Models for Investigating Cell Therapies of Stress Urinary Incontinence. <i>International Journal of Molecular Sciences</i> , 2021, 22, 6092.	4.1	4
97	Biomimetic development of chitosan and sodium alginate-based nanocomposites contains zirconia for tissue engineering applications. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2022, 110, 1942-1955.	3.4	4
98	Replacing Needle Injection by a Novel Waterjet Technology Grants Improved Muscle Cell Delivery in Target Tissues. <i>Cell Transplantation</i> , 2022, 31, 096368972210809.	2.5	4
99	Conrad et al. reply. <i>Nature</i> , 2010, 465, E3-E3.	27.8	3
100	Injection of Porcine Adipose Tissue-Derived Stromal Cells by a Novel Waterjet Technology. <i>International Journal of Molecular Sciences</i> , 2021, 22, 3958.	4.1	3
101	Silica incorporated chitosan-sodium alginate nanocomposite scaffolds for tissue engineering applications. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2023, 72, 537-549.	3.4	3
102	Expression of CD146 and Regenerative Cytokines by Human Placenta-Derived Mesenchymal Stromal Cells upon Expansion in Different GMP-Compliant Media. <i>Stem Cells International</i> , 2021, 2021, 1-10.	2.5	2
103	Novel Techniques to Improve Precise Cell Injection. <i>International Journal of Molecular Sciences</i> , 2021, 22, 6367.	4.1	1
104	Injection of Porcine Adipose Tissue-Derived Stroma Cells via Waterjet Technology. <i>Journal of Visualized Experiments</i> , 2021, , .	0.3	0