Joseph C Wenke

List of Publications by Year
in descending order

111	5,338	76326	88630
papers	citations	40 h-index	70 g-index

111	111	111	5832
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Characterization of Extremity Wounds in Operation Iraqi Freedom and Operation Enduring Freedom. Journal of Orthopaedic Trauma, 2007, 21, 254-257.	1.4	472
2	Effect of various concentrations of antibiotics on osteogenic cell viability and activity. Journal of Orthopaedic Research, 2011, 29, 1070-1074.	2.3	273
3	The Design and Use of Animal Models for Translational Research in Bone Tissue Engineering and Regenerative Medicine. Tissue Engineering - Part B: Reviews, 2010, 16, 123-145.	4.8	246
4	Volumetric muscle loss: Persistent functional deficits beyond frank loss of tissue. Journal of Orthopaedic Research, 2015, 33, 40-46.	2.3	170
5	Sustained release of vancomycin from polyurethane scaffolds inhibits infection of bone wounds in a rat femoral segmental defect model. Journal of Controlled Release, 2010, 145, 221-230.	9.9	166
6	The effects of rhBMP-2 released from biodegradable polyurethane/microsphere composite scaffolds on new bone formation in rat femora. Biomaterials, 2009, 30, 6768-6779.	11.4	165
7	Sequential delivery of BMP-2 and IGF-1 using a chitosan gel with gelatin microspheres enhances early osteoblastic differentiation. Acta Biomaterialia, 2012, 8, 1768-1777.	8.3	164
8	Ten years at war. Journal of Trauma and Acute Care Surgery, 2012, 73, S438-S444.	2.1	157
9	Porous hydroxyapatite scaffold with three-dimensional localized drug delivery system using biodegradable microspheres. Journal of Controlled Release, 2011, 153, 133-140.	9.9	150
10	Improving Bone Formation in a Rat Femur Segmental Defect by Controlling Bone Morphogenetic Protein-2 Release. Tissue Engineering - Part A, 2011, 17, 1735-1746.	3.1	139
11	Characterization of Craniomaxillofacial Battle Injuries Sustained by United States Service Members in the Current Conflicts of Iraq and Afghanistan. Journal of Oral and Maxillofacial Surgery, 2010, 68, 3-7.	1.2	136
12	Resource Utilization and Disability Outcome Assessment of Combat Casualties From Operation Iraqi Freedom and Operation Enduring Freedom. Journal of Orthopaedic Trauma, 2009, 23, 261-266.	1.4	132
13	Prevention of Infections Associated With Combat-Related Extremity Injuries. Journal of Trauma, 2011, 71, S235-S257.	2.3	114
14	Pathophysiology of Volumetric Muscle Loss Injury. Cells Tissues Organs, 2016, 202, 180-188.	2.3	106
15	Effectiveness of Self-Applied Tourniquets in Human Volunteers. Prehospital Emergency Care, 2005, 9, 416-422.	1.8	95
16	<scp>d</scp> -Amino Acids Enhance the Activity of Antimicrobials against Biofilms of Clinical Wound Isolates of Staphylococcus aureus and Pseudomonas aeruginosa. Antimicrobial Agents and Chemotherapy, 2014, 58, 4353-4361.	3.2	93
17	Negative Pressure Wound Therapy Reduces Pseudomonas Wound Contamination More Than Staphylococcus aureus. Journal of Orthopaedic Trauma, 2010, 24, 598-602.	1.4	91
18	Incidence of Major Tendon Ruptures and Anterior Cruciate Ligament Tears in US Army Soldiers. American Journal of Sports Medicine, 2007, 35, 1308-1314.	4.2	87

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19	Comparison of the Antimicrobial Effect of Chlorhexidine and Saline for Irrigating a Contaminated Open Fracture Model. Journal of Orthopaedic Trauma, 2012, 26, 728-732.	1.4	86
20	Effect of calcium phosphate coating and rhBMP-2 on bone regeneration in rabbit calvaria using poly(propylene fumarate) scaffolds. Acta Biomaterialia, 2015, 18, 9-20.	8.3	77
21	Effects of local delivery of d-amino acids from biofilm-dispersive scaffolds on infection in contaminated rat segmental defects. Biomaterials, 2013, 34, 7533-7543.	11.4	68
22	Adjuvant antibioticâ€loaded bone cement: Concerns with current use and research to make it work. Journal of Orthopaedic Research, 2021, 39, 227-239.	2.3	63
23	Dual-Purpose Bone Grafts Improve Healing and Reduce Infection. Journal of Orthopaedic Trauma, 2011, 25, 477-482.	1.4	59
24	Time Course of Immune Response and Immunomodulation During Normal and Delayed Healing of Musculoskeletal Wounds. Frontiers in Immunology, 2020, 11, 1056.	4.8	58
25	Human plasma enhances the expression of Staphylococcal microbial surface components recognizing adhesive matrix molecules promoting biofilm formation and increases antimicrobial tolerance In Vitro. BMC Research Notes, 2014, 7, 457.	1.4	57
26	Dual delivery of an antibiotic and a growth factor addresses both the microbiological and biological challenges of contaminated bone fractures. Expert Opinion on Drug Delivery, 2011, 8, 1555-1569.	5.0	55
27	Local Delivery of Tobramycin from Injectable Biodegradable Polyurethane Scaffolds. Journal of Biomaterials Science, Polymer Edition, 2010, 21, 95-112.	3.5	54
28	Characterisation and outcomes of upper extremity amputations. Injury, 2014, 45, 965-969.	1.7	54
29	Local Antibiotic Delivery Using Tailorable Chitosan Sponges: The Future of Infection Control?. Journal of Orthopaedic Trauma, 2010, 24, 592-597.	1.4	53
30	In Vitro Toxicity and Activity of Dakin's Solution, Mafenide Acetate, and Amphotericin B on Filamentous Fungi and Human Cells. Journal of Orthopaedic Trauma, 2013, 27, 428-436.	1.4	50
31	Time-Dependent Effectiveness of Locally Applied Vancomycin Powder in a Contaminated Traumatic Orthopaedic Wound Model. Journal of Orthopaedic Trauma, 2016, 30, 531-537.	1.4	50
32	Autologous Minced Muscle Grafts Improve Muscle Strength in a Porcine Model of Volumetric Muscle Loss Injury. Journal of Orthopaedic Trauma, 2016, 30, e396-e403.	1.4	48
33	Guided Bone Regeneration in Long-Bone Defects with a Structural Hydroxyapatite Graft and Collagen Membrane. Tissue Engineering - Part A, 2013, 19, 1879-1888.	3.1	47
34	Balancing the Rates of New Bone Formation and Polymer Degradation Enhances Healing of Weight-Bearing Allograft/Polyurethane Composites in Rabbit Femoral Defects. Tissue Engineering - Part A, 2014, 20, 115-129.	3.1	47
35	Military medical revolution. Journal of Trauma and Acute Care Surgery, 2012, 73, S388-S394.	2.1	45
36	Local Antibiotic Delivery by a Bioabsorbable Gel Is Superior to PMMA Bead Depot in Reducing Infection in an Open Fracture Model. Journal of Orthopaedic Trauma, 2014, 28, 370-375.	1.4	45

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37	Novel osteoinductive photo-cross-linkable chitosan-lactide-fibrinogen hydrogels enhance bone regeneration in critical size segmental bone defects. Acta Biomaterialia, 2014, 10, 5021-5033.	8.3	45
38	Effect of Adipose Tissue-Derived Osteogenic and Endothelial Cells on Bone Allograft Osteogenesis and Vascularization in Critical-Sized Calvarial Defects. Tissue Engineering - Part A, 2012, 18, 1552-1561.	3.1	44
39	Biocompatibility and chemical reaction kinetics of injectable, settable polyurethane/allograft bone biocomposites. Acta Biomaterialia, 2012, 8, 4405-4416.	8.3	42
40	Return to Duty After Type III Open Tibia Fracture. Journal of Orthopaedic Trauma, 2012, 26, 43-47.	1.4	41
41	Does the Zone of Injury in Combat-Related Type III Open Tibia Fractures Preclude the Use of Local Soft Tissue Coverage?. Journal of Orthopaedic Trauma, 2010, 24, 697-703.	1.4	40
42	Endothelial cell behaviour on gas-plasma-treated PLA surfaces: the roles of surface chemistry and roughness. Journal of Tissue Engineering and Regenerative Medicine, 2011, 5, 301-312.	2.7	40
43	Military medical revolution. Journal of Trauma and Acute Care Surgery, 2012, 73, S378-S387.	2.1	40
44	Negative Pressure Wound Therapy Reduces the Effectiveness of Traditional Local Antibiotic Depot in a Large Complex Musculoskeletal Wound Animal Model. Journal of Orthopaedic Trauma, 2012, 26, 512-518.	1.4	40
45	Physiological Evaluation of the U.S. Army One-Handed Tourniquet. Military Medicine, 2005, 170, 776-781.	0.8	39
46	Effects of Local Antibiotic Delivery from Porous Space Maintainers on Infection Clearance and Induction of an Osteogenic Membrane in an Infected Bone Defect. Tissue Engineering - Part A, 2017, 23, 91-100.	3.1	37
47	Autologous minced muscle grafts improve endogenous fracture healing and muscle strength after musculoskeletal trauma. Physiological Reports, 2017, 5, e13362.	1.7	36
48	Hydroxyapatite scaffold pore architecture effects in large bone defects inÂvivo. Journal of Biomaterials Applications, 2014, 28, 1016-1027.	2.4	35
49	In vivo performance of bilayer hydroxyapatite scaffolds for bone tissue regeneration in the rabbit radius. Journal of Materials Science: Materials in Medicine, 2011, 22, 647-656.	3.6	32
50	Beyond osteogenesis: an in vitro comparison of the potentials of six bone morphogenetic proteins. Frontiers in Pharmacology, 2013, 4, 125.	3.5	31
51	Infection reduces return-to-duty rates for soldiers with Type III open tibia fractures. Journal of Trauma and Acute Care Surgery, 2014, 77, S194-S197.	2.1	31
52	Current therapies in treatment and prevention of fracture wound biofilms: why a multifaceted approach is essential for resolving persistent infections. Journal of Bone and Joint Infection, 2018, 3, 50-67.	1.5	30
53	Fasciotomy Rates in Operations Enduring Freedom and Iraqi Freedom: Association with Injury Severity and Tourniquet Use. Journal of Orthopaedic Trauma, 2011, 25, 134-139.	1.4	29
54	Oxidatively degradable poly(thioketal urethane)/ceramic composite bone cements with bone-like strength. RSC Advances, 2016, 6, 109414-109424.	3.6	29

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55	Pharmacological Mitigation of Fibrosis in a Porcine Model of Volumetric Muscle Loss Injury. Tissue Engineering - Part A, 2020, 26, 636-646.	3.1	29
56	Voriconazole Enhances the Osteogenic Activity of Human Osteoblasts In Vitro through a Fluoride-Independent Mechanism. Antimicrobial Agents and Chemotherapy, 2015, 59, 7205-7213.	3.2	28
57	In Vitro activity of Melaleuca alternifolia (tea tree) oil on filamentous fungi and toxicity to human cells. Medical Mycology, 2015, 53, 285-294.	0.7	28
58	Late amputation may not reduce complications or improve mental health in combat-related, lower extremity limb salvage patients. Injury, 2015, 46, 1527-1532.	1.7	28
59	A transient cell-shielding method for viable MSC delivery within hydrophobic scaffolds polymerized in situ. Biomaterials, 2015, 54, 21-33.	11.4	28
60	Decellularized extracellular matrix repair of volumetric muscle loss injury impairs adjacent bone healing in a rat model of complex musculoskeletal trauma. Journal of Trauma and Acute Care Surgery, 2016, 81, S184-S190.	2.1	26
61	Return-to-duty rates among US military combat-related amputees in the global war on terror. Journal of Trauma and Acute Care Surgery, 2013, 75, 279-286.	2.1	25
62	Fate of Combat Nerve Injury. Journal of Orthopaedic Trauma, 2012, 26, e198-e203.	1.4	23
63	Determining potential of PMMA as a depot for rifampin to treat recalcitrant orthopaedic infections. Injury, 2017, 48, 2095-2100.	1.7	23
64	Preliminary in vitro evaluation of an adjunctive therapy for extremity wound infection reduction: Rapidly resorbing local antibiotic delivery. Journal of Orthopaedic Research, 2009, 27, 903-908.	2.3	22
65	Effect of Endothelial Differentiated Adipose-Derived Stem Cells on Vascularity and Osteogenesis in Poly(D,L-Lactide) Scaffolds In Vivo. Journal of Craniofacial Surgery, 2012, 23, 913-918.	0.7	20
66	Antibiotic-loaded bone graft for reduction of surgical site infection in spinal fusion. Spine Journal, 2017, 17, 1917-1925.	1.3	20
67	Detection of methicillin-resistant and methicillin-susceptible Staphylococcus aureus colonization of healthy military personnel by traditional culture, PCR, and mass spectrometry. Scandinavian Journal of Infectious Diseases, 2013, 45, 752-759.	1.5	19
68	Settable polymer/ceramic composite bone grafts stabilize weight-bearing tibial plateau slot defects and integrate with host bone in an ovine model. Biomaterials, 2018, 179, 29-45.	11.4	19
69	In Vitroactivity of Manuka Honey and polyhexamethylene biguanide on filamentous fungi and toxicity to human cell lines. Medical Mycology, 2017, 55, myw070.	0.7	18
70	Inhibition of fracture healing in the presence of contamination byStaphylococcus aureus: Effects of growth state and immune response. Journal of Orthopaedic Research, 2017, 35, 1845-1854.	2.3	18
71	Migration of Co-cultured Endothelial Cells and Osteoblasts in Composite Hydroxyapatite/Polylactic Acid Scaffolds. Annals of Biomedical Engineering, 2011, 39, 2501-2509.	2.5	17
72	Investigating the effects of surface-initiated polymerization of Îµ-caprolactone to bioactive glass particles on the mechanical properties of settable polymer/ceramic composites. Journal of Materials Research, 2014, 29, 2398-2407.	2.6	16

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73	Topical rifampin powder for orthopaedic trauma part II: Topical rifampin allows for spontaneous bone healing in sterile and contaminated wounds. Journal of Orthopaedic Research, 2018, 36, 3142-3150.	2.3	16
74	The role of epimysium in suturing skeletal muscle lacerations. Journal of the American College of Surgeons, 2005, 200, 38-44.	0.5	15
75	Common Factors and Outcome in Late Upper Extremity Amputations After Military Injury. Journal of Orthopaedic Trauma, 2014, 28, 227-231.	1.4	14
76	Effects of nanocrystalline hydroxyapatite concentration and skeletal site on bone and cartilage formation in rats. Acta Biomaterialia, 2021, 130, 485-496.	8.3	14
77	Investigation of Severe Craniomaxillofacial Battle Injuries Sustained by U.S. Service Members: A Case Series. Craniomaxillofacial Trauma & Reconstruction, 2012, 5, 243-252.	1.3	13
78	Dakin solution alters macrophage viability and function. Journal of Surgical Research, 2014, 192, 692-699.	1.6	13
79	Rapid degradation and non-selectivity of Dakinâ€™s solution prevents effectiveness in contaminated musculoskeletal wound models. Injury, 2018, 49, 1763-1773.	1.7	13
80	Initial injury severity and social factors determine ability to deploy after combat-related amputation. Injury, 2014, 45, 1231-1235.	1.7	12
81	Poly(Thioketal Urethane) Autograft Extenders in an Intertransverse Process Model of Bone Formation. Tissue Engineering - Part A, 2019, 25, 949-963.	3.1	12
82	Localized mandibular infection affects remote in vivo bioreactor bone generation. Biomaterials, 2020, 256, 120185.	11.4	12
83	An Effective Negative Pressure Wound Therapyâ€“Compatible Local Antibiotic Delivery Device. Journal of Orthopaedic Trauma, 2017, 31, 631-635.	1.4	11
84	Duration of extremity tourniquet application profoundly impacts soft-tissue antibiotic exposure in a rat model of ischemia-reperfusion injury. Injury, 2019, 50, 2203-2214.	1.7	11
85	Analysis of injury patterns and roles of care in US and Israel militaries during recent conflicts. Journal of Trauma and Acute Care Surgery, 2016, 81, S87-S94.	2.1	10
86	Combat-related bridge synostosis versus traditional transtibial amputation: comparison of military-specific outcomes. Strategies in Trauma and Limb Reconstruction, 2016, 11, 5-11.	0.8	10
87	Manipulation of Human Primary Endothelial Cell and Osteoblast Coculture Ratios to Augment Vasculogenesis and Mineralization. Annals of Plastic Surgery, 2016, 77, 122-128.	0.9	10
88	Military Fractures: Overtraining, Accidents, Casualties, and Fragility. Clinical Reviews in Bone and Mineral Metabolism, 2018, 16, 103-115.	0.8	10
89	Characteristics and Impact of Animal Models Used for Sports Medicine Research. Orthopedics, 2012, 35, e1410-5.	1.1	10
90	Craniomaxillofacial Battle Injuries: Injury Patterns, Conventional Treatment Limitations and Direction of Future Research. Singapore Dental Journal, 2010, 31, 1-8.	0.8	8

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91	Supplemental oxygen attenuates the increase in wound bacterial growth during simulated aeromedical evacuation in goats. Journal of Trauma and Acute Care Surgery, 2012, 73, 80-86.	2.1	8
92	Fresh frozen plasma reduces edema in skeletal muscle following combined limb ischemia-reperfusion injury and hemorrhagic shock in rats. Journal of Trauma and Acute Care Surgery, 2015, 79, S110-S115.	2.1	8
93	Local Bismuth Thiols Potentiate Antibiotics and Reduce Infection in a Contaminated Open Fracture Model. Journal of Orthopaedic Trauma, 2015, 29, e73-e78.	1.4	8
94	Alternatives to autograft evaluated in a rabbit segmental bone defect. International Orthopaedics, 2016, 40, 197-203.	1.9	8
95	Fresh whole blood resuscitation does not exacerbate skeletal muscle edema and long-term functional deficit after ischemic injury and hemorrhagic shock. Journal of Trauma and Acute Care Surgery, 2018, 84, 786-794.	2.1	8
96	Intramuscular transplantation and survival of freshly isolated bone marrow cells following skeletal muscle ischemia-reperfusion injury. Journal of Trauma and Acute Care Surgery, 2013, 75, S142-S149.	2.1	7
97	Negative pressure wound therapy does not diminish efficacy of topical antibiotic powder in a preclinical contaminated wound model. Bone and Joint Research, 2021, 10, 149-155.	3.6	6
98	Passive Biomechanical Properties of Sutured Mammalian Muscle Lacerations. Journal of Investigative Surgery, 2005, 18, 19-23.	1.3	5
99	Prevention and Treatment of Infected Foot and Ankle Wounds Sustained inÂthe Combat Environment. Foot and Ankle Clinics, 2010, 15, 91-112.	1.3	5
100	Comparative efficacy of resorbable fiber wraps loaded with gentamicin sulfate or gallium maltolate in the treatment of osteomyelitis. Journal of Biomedical Materials Research - Part A, 2021, 109, 2255-2268.	4.0	5
101	Mouse Plantar Flexor Muscle Size and Strength After Inactivity and Training. Aviation, Space, and Environmental Medicine, 2010, 81, 632-638.	0.5	4
102	Bacterial Adherence to Titanium, Poly-L-Lactic Acid, and Composite Hydroxyapatite and Poly-L-Lactic Acid Interference Screws. Journal of Surgical Orthopaedic Advances, 2012, 21, 237-241.	0.1	3
103	Amputation Characteristics Vary by Branch of Service. Journal of Surgical Orthopaedic Advances, 2014, 23, 57-63.	0.1	3
104	Time-Dependent Effects of Chlorhexidine Soaks on Grossly Contaminated Bone. Journal of Orthopaedic Trauma, 2012, 26, 574-578.	1.4	2
105	Tiered team research: A novel concept for increasing research productivity in the academic setting. Education for Health: Change in Learning and Practice, 2020, 33, 46.	0.3	2
106	Effect of proteasome inhibitor 1 on wound healing: a potential scar prevention therapy. Wounds, 2013, 25, 28-33.	0.5	1
107	Military Orthopaedic Trauma Registry: Quality Data Now Available. Journal of Surgical Orthopaedic Advances, 2016, 25, 89-92.	0.1	1
108	Antibiotic-Loaded Bone Graft for Infection Prevention and Bone Regeneration in Posterolateral Spinal Fusion. Spine Journal, 2016, 16, S167.	1.3	0

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109	Can Dynamic Contrast-Enhanced CT Quantify Perfusion in a Stimulated Muscle of Limited Size? A Rat Model. Clinical Orthopaedics and Related Research, 2020, 478, 179-188.	1.5	0
110	Temporal Gene Expression Profiling of Bone Repair in a Rat Calvarial Defect. FASEB Journal, 2010, 24, lb13.	0.5	0
111	Risk of Obtaining Routine Cultures During Presumed Aseptic Orthopaedic Procedures. Journal of Surgical Orthopaedic Advances, 2017, 26, 239-245.	0.1	0