

# Lukasz Witek

## List of Publications by Year in descending order

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116  
papers

2,246  
citations

218662

26  
h-index

302107

39  
g-index

118  
all docs

118  
docs citations

118  
times ranked

2251  
citing authors

#	ARTICLE	IF	CITATIONS
1	The presence of 3D printing in orthopedics: A clinical and material review. Journal of Orthopaedic Research, 2023, 41, 601-613.	2.3	15
2	Physiochemical and bactericidal activity evaluation: Silver-augmented 3D-printed scaffolds-An in vitro study. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, 110, 195-209.	3.4	9
3	Osteoradionecrosis After Radiation to Reconstructed Mandible With Titanium Plate and Osseointegrated Dental Implants. Practical Radiation Oncology, 2022, 12, 90-94.	2.1	0
4	Self-assembling human skeletal organoids for disease modeling and drug testing. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, 110, 871-884.	3.4	14
5	Tissue Engineering Strategies for Craniomaxillofacial Surgery: Current Trends in 3D-Printed Bioactive Ceramic Scaffolds. Springer Series in Biomaterials Science and Engineering, 2022, , 55-74.	1.0	2
6	3D-printed resins for provisional dental restorations: Comparison of mechanical and biological properties. Journal of Esthetic and Restorative Dentistry, 2022, 34, 804-815.	3.8	32
7	Effects of local single dose administration of parathormone on the early stages of osseointegration: A pre-clinical study. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, , .	3.4	2
8	Residual stress estimated by nanoindentation in pontics and abutments of veneered zirconia fixed dental prostheses. Journal of Applied Oral Science, 2022, 30, e20210475.	1.8	1
9	Locally Secreted Semaphorin 4D Is Engaged in Both Pathogenic Bone Resorption and Retarded Bone Regeneration in a Ligature-Induced Mouse Model of Periodontitis. International Journal of Molecular Sciences, 2022, 23, 5630.	4.1	9
10	Drug-Eluting Rubber Bands for Tissue Ligation. ACS Applied Materials & Interfaces, 2022, 14, 27675-27685.	8.0	0
11	Effect of leukocyte-platelet-rich fibrin in bone healing around dental implants placed in conventional and wide osteotomy sites: A pre-clinical study. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, 110, 2705-2713.	3.4	5
12	Effect of Surgical Instrumentation Variables on the Osseointegration of Narrow- and Wide-Diameter Short Implants. Journal of Oral and Maxillofacial Surgery, 2021, 79, 346-355.	1.2	5
13	WE43 and WE43-T5 Mg alloys screws tested in-vitro cellular adhesion and differentiation assay and in-vivo histomorphologic analysis in an ovine model. Journal of Biomaterials Applications, 2021, 35, 901-911.	2.4	2
14	Comparison of Surface Treatments of Endosteal Implants in Ovariectomized Rabbits. International Journal of Oral and Maxillofacial Implants, 2021, 36, 38-46.	1.4	0
15	Trends in the 3D-Printing Parts for Medical and Dental Implant Technologies. , 2021, , .		0
16	Histomorphometric analysis of implant osseointegration using hydrophilic implants in diabetic rats. Clinical Oral Investigations, 2021, 25, 5867-5878.	3.0	2
17	Comparative barrier membrane degradation over time: Pericardium versus dermal membranes. Clinical and Experimental Dental Research, 2021, 7, 711-718.	1.9	15
18	Effects of relative centrifugation force on L-PRF : An in vivo submandibular bone defect regeneration study. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2021, 109, 2237-2245.	3.4	6

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19	Physical and chemical characterization of synthetic bone mineral ink - For additive manufacturing applications. <i>Annals of 3D Printed Medicine</i> , 2021, 3, 100024.	3.1	2
20	Effect of supplemental acid-etching on the early stages of osseointegration: A preclinical model. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 122, 104682.	3.1	5
21	Nanoscale physico-mechanical properties of an aging resistant ZTA composite. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 123, 104690.	3.1	5
22	Hydrothermal aging affects the three-dimensional fit and fatigue lifetime of zirconia abutments. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 124, 104832.	3.1	4
23	Osseodensification Versus Subtractive Drilling Techniques in Bone Healing and Implant Osseointegration: Ex Vivo Histomorphologic/Histomorphometric Analysis in a Low-Density Bone Ovine Model. <i>International Journal of Oral and Maxillofacial Implants</i> , 2021, 36, 903-909.	1.4	8
24	Transforming the Degradation Rate of $\beta$ -tricalcium Phosphate Bone Replacement Using 3-Dimensional Printing. <i>Annals of Plastic Surgery</i> , 2021, 87, e153-e162.	0.9	12
25	Three-Dimensionally-Printed Bioactive Ceramic Scaffolds: Construct Effects on Bone Regeneration. <i>Journal of Craniofacial Surgery</i> , 2021, 32, 1177-1181.	0.7	8
26	Clinical application of a FOXO1 inhibitor improves connective tissue healing in a diabetic minipig model. <i>American Journal of Translational Research (discontinued)</i> , 2021, 13, 781-791.	0.0	0
27	Microtomographic reconstruction of mandibular defects treated with xenografts and collagen-based membranes: A pre-clinical minipig model. <i>Medicina Oral, Patologia Oral Y Cirugia Bucal</i> , 2021, 26, e825-e833.	1.7	7
28	Early-onset osteoradionecrosis following adjuvant volumetric-modulated arc therapy to an osteocutaneous free fibula flap with customized titanium plate. <i>Journal of Stomatology, Oral and Maxillofacial Surgery</i> , 2021, , .	1.3	0
29	The effect of platelet-rich fibrin exudate addition to porous poly(lactic acid-glycolic acid) scaffold in bone healing: An in vivo study. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2020, 108, 1304-1310.	3.4	12
30	Bone Tissue Engineering in the Growing Calvaria Using Dipyridamole-Coated, Three-Dimensionally-Printed Bioceramic Scaffolds: Construct Optimization and Effects on Cranial Suture Patency. <i>Plastic and Reconstructive Surgery</i> , 2020, 145, 337e-347e.	1.4	30
31	Implant-abutment fit influences the mechanical performance of single-crown prostheses. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 102, 103506.	3.1	9
32	Microstructural, mechanical, and optical characterization of an experimental aging-resistant zirconia-toughened alumina (ZTA) composite. <i>Dental Materials</i> , 2020, 36, e365-e374.	3.5	14
33	3D Printing of Microgel-Loaded Modular Microcages as Instructive Scaffolds for Tissue Engineering. <i>Advanced Materials</i> , 2020, 32, e2001736.	21.0	42
34	Clinical, histological, and nanomechanical parameters of implants placed in healthy and metabolically compromised patients. <i>Journal of Dentistry</i> , 2020, 100, 103436.	4.1	7
35	Three-Dimensional Printing for Craniofacial Bone Tissue Engineering. <i>Tissue Engineering - Part A</i> , 2020, 26, 1303-1311.	3.1	28
36	Histological and Nanomechanical Properties of a New Nanometric Hydroxiapatite Implant Surface. An In Vivo Study in Diabetic Rats. <i>Materials</i> , 2020, 13, 5693.	2.9	8

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37	Influence of Abutment Fabrication Method on 3D Fit at the Implant-Abutment Connection. International Journal of Prosthodontics, 2020, 33, 641-647.	1.7	13
38	Osseodensification drilling vs conventional manual instrumentation technique for posterior lumbar fixation: Ex vivo mechanical and histomorphological analysis in an ovine model. Journal of Orthopaedic Research, 2020, 39, 1463-1469.	2.3	4
39	Aging resistant ZTA composite for dental applications: Microstructural, optical and mechanical characterization. Dental Materials, 2020, 36, 1190-1200.	3.5	22
40	Obesity/Metabolic Syndrome and Diabetes Mellitus on Peri-implantitis. Trends in Endocrinology and Metabolism, 2020, 31, 596-610.	7.1	50
41	Assessing osseointegration of metallic implants with boronized surface treatment. Medicina Oral, Patologia Oral Y Cirugia Bucal, 2020, 25, e311-e317.	1.7	6
42	Salicylic Acid Polymers in Periodontal Tissue Healing. , 2020, , 43-53.		2
43	Local delivery of adenosine receptor agonists to promote bone regeneration and defect healing. Advanced Drug Delivery Reviews, 2019, 146, 240-247.	13.7	25
44	The effect of osseodensification drilling for endosteal implants with different surface treatments: A study in sheep. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 615-623.	3.4	22
45	The Effect of CAD/CAM Crown Material and Cement Type on Retention to Implant Abutments. Journal of Prosthodontics, 2019, 28, e552-e556.	3.7	26
46	In-House Manufacture of Sterilizable, Scaled, Patient-Specific 3D-Printed Models for Rhinoplasty. Aesthetic Surgery Journal, 2019, 39, 254-263.	1.6	27
47	Biomaterial and biomechanical considerations to prevent risks in implant therapy. Periodontology 2000, 2019, 81, 139-151.	13.4	27
48	Repair of Critical-Sized Long Bone Defects Using Dipyridamole-Augmented 3D-Printed Bioactive Ceramic Scaffolds. Journal of Orthopaedic Research, 2019, 37, 2499-2507.	2.3	33
49	Tissue-engineered alloplastic scaffolds for reconstruction of alveolar defects. , 2019, , 505-520.		3
50	Parenchymal and stromal tissue regeneration of tooth organ by pivotal signals reinstated in decellularized matrix. Nature Materials, 2019, 18, 627-637.	27.5	53
51	Osteointegrative and microgeometric comparison between micro-blasted and alumina blasting/acid etching on grade II and V titanium alloys (Ti-6Al-4V). Journal of the Mechanical Behavior of Biomedical Materials, 2019, 97, 288-295.	3.1	14
52	Zirconia-reinforced lithium silicate crowns: Effect of thickness on survival and failure mode. Dental Materials, 2019, 35, 1007-1016.	3.5	30
53	3D Printing and Adenosine Receptor Activation for Craniomaxillofacial Regeneration. , 2019, , 255-267.		2
54	Nanomechanical and microstructural characterization of a zirconia-toughened alumina composite after aging. Ceramics International, 2019, 45, 8840-8846.	4.8	25

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55	Regeneration of a Pediatric Alveolar Cleft Model Using Three-Dimensionally Printed Bioceramic Scaffolds and Osteogenic Agents: Comparison of Dipyridamole and rhBMP-2. Plastic and Reconstructive Surgery, 2019, 144, 358-370.	1.4	21
56	Alveolar Ridge Expansion: Comparison of Osseodensification and Conventional Osteotome Techniques. Journal of Craniofacial Surgery, 2019, 30, 607-610.	0.7	24
57	Ridge Architecture Preservation Following Minimally Traumatic Exodontia Techniques and Guided Tissue Regeneration. Implant Dentistry, 2019, 28, 319-328.	1.3	5
58	Dipyridamole-loaded 3D-printed bioceramic scaffolds stimulate pediatric bone regeneration in vivo without disruption of craniofacial growth through facial maturity. Scientific Reports, 2019, 9, 18439.	3.3	29
59	Dipyridamole Augments Three-Dimensionally Printed Bioactive Ceramic Scaffolds to Regenerate Craniofacial Bone. Plastic and Reconstructive Surgery, 2019, 143, 1408-1419.	1.4	22
60	<i>In vivo</i> evaluation of resorbable supercritical CO <sub>2</sub> -treated collagen membranes for class III furcation-guided tissue regeneration. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 1320-1328.	3.4	13
61	Absence of Healing Impairment in Osteotomies Prepared via Osseodensification Drilling. International Journal of Periodontics and Restorative Dentistry, 2019, 39, 65-71.	1.0	18
62	Periodontal Tissue Regeneration Using Brain-Derived Neurotrophic Factor Delivered by Collagen Sponge. Tissue Engineering - Part A, 2019, 25, 1072-1083.	3.1	6
63	Synergistic Effects of Implant Macrogeometry and Surface Physicochemical Modifications on Osseointegration: An In Vivo Experimental Study in Sheep. Journal of Long-Term Effects of Medical Implants, 2019, 29, 295-302.	0.7	8
64	Osteogenic parameters surrounding trabecular tantalum metal implants in osteotomies prepared via osseodensification drilling. Medicina Oral, Patologia Oral Y Cirugia Bucal, 2019, 24, 0-0.	1.7	8
65	The Role of Adenosine Receptor Activation in Attenuating Cartilaginous Inflammation. Inflammation, 2018, 41, 1135-1141.	3.8	14
66	The effect of DLC-coating deposition method on the reliability and mechanical properties of abutment™s screws. Dental Materials, 2018, 34, e128-e137.	3.5	14
67	Histo-morphologic characteristics of intra-osseous implants of WE43 Mg alloys with and without heat treatment in an in vivo cranial bone sheep model. Journal of Cranio-Maxillo-Facial Surgery, 2018, 46, 473-478.	1.7	9
68	Residual stress of porcelain-fused to zirconia 3-unit fixed dental prostheses measured by nanoindentation. Dental Materials, 2018, 34, 260-271.	3.5	8
69	Dipyridamole enhances osteogenesis of three-dimensionally printed bioactive ceramic scaffolds in calvarial defects. Journal of Cranio-Maxillo-Facial Surgery, 2018, 46, 237-244.	1.7	44
70	Atemporal osseointegration: Early biomechanical stability through osseodensification. Journal of Orthopaedic Research, 2018, 36, 2516-2523.	2.3	34
71	Fatigue Failure of Narrow Implants with Different Implant-Abutment Connection Designs. Journal of Prosthodontics, 2018, 27, 659-664.	3.7	24
72	Three dimensionally printed bioactive ceramic scaffold osseointegration across critical-sized mandibular defects. Journal of Surgical Research, 2018, 223, 115-122.	1.6	67

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73	Effect of CAD/CAM Abutment Height and Cement Type on the Retention of Zirconia Crowns. Implant Dentistry, 2018, 27, 582-587.	1.3	26
74	The role of 3D printing in treating craniomaxillofacial congenital anomalies. Birth Defects Research, 2018, 110, 1055-1064.	1.5	40
75	Osseodensification outperforms conventional implant subtractive instrumentation: A study in sheep. Materials Science and Engineering C, 2018, 90, 300-307.	7.3	26
76	Form and functional repair of long bone using 3D-printed bioactive scaffolds. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, 1986-1999.	2.7	49
77	Osseodensification for enhancement of spinal surgical hardware fixation. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 69, 275-281.	3.1	33
78	The technique for 3D printing patient-specific models for auricular reconstruction. Journal of Cranio-Maxillo-Facial Surgery, 2017, 45, 937-943.	1.7	58
79	Biocompatibility and degradation properties of WE43 Mg alloys with and without heat treatment: InÂvivo evaluation and comparison in a cranial bone sheep model. Journal of Cranio-Maxillo-Facial Surgery, 2017, 45, 2075-2083.	1.7	37
80	In Vivo Evaluation of Dual Acid-Etched and Grit-Blasted/Acid-Etched Implants With Identical Macrogeometry in High-Density Bone. Implant Dentistry, 2017, 26, 815-819.	1.3	9
81	Controlling calcium and phosphate ion release of 3D printed bioactive ceramic scaffolds: An in vitro study. Journal of Advanced Ceramics, 2017, 6, 157-164.	17.4	27
82	Effect of implant placement depth on the peri-implant bone defect configurations in ligature-induced peri-implantitis: An experimental study in dogs. Medicina Oral, Patologia Oral Y Cirugia Bucal, 2017, 23, 0-0.	1.7	4
83	Biomechanical and histologic basis of osseodensification drilling for endosteal implant placement in low density bone. An experimental study in sheep. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 63, 56-65.	3.1	81
84	Ticagrelor regulates osteoblast and osteoclast function and promotes bone formation in vivo <i>via</i> an adenosineâ€dependent mechanism. FASEB Journal, 2016, 30, 3887-3900.	0.5	49
85	Patient-specific 3D Models for Autogenous Ear Reconstruction. Plastic and Reconstructive Surgery - Global Open, 2016, 4, e1093.	0.6	15
86	Influence of placement depth on bone remodeling around tapered internal connection implants: a histologic study in dogs. Clinical Oral Implants Research, 2015, 26, 942-949.	4.5	24
87	Geometrical versus Random $\hat{1}^2$ -TCP Scaffolds: Exploring the Effects on Schwann Cell Growth and Behavior. PLoS ONE, 2015, 10, e0139820.	2.5	16
88	Assessment of Atmospheric Pressure Plasma Treatment for Implant Osseointegration. BioMed Research International, 2015, 2015, 1-8.	1.9	26
89	Bone Regenerative Potential of Modified Biphasic Graft Materials. Implant Dentistry, 2015, Publish Ahead of Print, 149-54.	1.3	4
90	Development of a guided bone regeneration device using salicylic acidâ€poly(anhydrideâ€ester) polymers and osteoconductive scaffolds. Journal of Biomedical Materials Research - Part A, 2014, 102, 655-664.	4.0	17

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91	The in vivo effect of P-15 coating on early osseointegration. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2014, 102, 430-440.	3.4	22
92	Modification of Xenogeneic Graft Materials for Improved Release of P-15 Peptides in a Calvarium Defect Model. Journal of Craniofacial Surgery, 2014, 25, 70-76.	0.7	3
93	Evaluation of bone response to various anorganic bovine bone xenografts: an experimental calvaria defect study. International Journal of Oral and Maxillofacial Surgery, 2014, 43, 251-260.	1.5	42
94	The physicochemical characterization and in vivo response of micro/nanoporous bioactive ceramic particulate bone graft materials. Materials Science and Engineering C, 2014, 43, 472-480.	7.3	10
95	Amoxicillin Administrations and Its Influence on Bone Repair Around Osseointegrated Implants. Journal of Oral and Maxillofacial Surgery, 2014, 72, 305.e1-305.e5.	1.2	5
96	Bone Regeneration Around Implants Placed in Fresh Extraction Sockets Covered with a Dual-Layer PTFE/Collagen Membrane: An Experimental Study in Dogs. International Journal of Periodontics and Restorative Dentistry, 2014, 34, 849-855.	1.0	4
97	Osseointegration assessment of chairside argon-based nonthermal plasma-treated CaF <sub>2</sub> coated dental implants. Journal of Biomedical Materials Research - Part A, 2013, 101A, 98-103.	4.0	42
98	Sintering effects on chemical and physical properties of bioactive ceramics. Journal of Advanced Ceramics, 2013, 2, 274-284.	17.4	27
99	MicroCT Analysis of a Retrieved Root Restored with a Bonded Fiber-Reinforced Composite Dowel: A Pilot Study. Journal of Prosthodontics, 2013, 22, 478-483.	3.7	7
100	Implant Biomechanical Stability Variation at Early Implantation Times in Vivo: An Experimental Study in Dogs. International Journal of Oral and Maxillofacial Implants, 2013, 28, e128-e134.	1.4	24
101	Surface Characterization, Biomechanical, and Histologic Evaluation of Alumina and Bioactive Resorbable Blasting Textured Surfaces in Titanium Implant Healing Chambers: An Experimental Study in Dogs. International Journal of Oral and Maxillofacial Implants, 2013, 28, 694-700.	1.4	15
102	Bone-Forming Capabilities of a Newly Developed NanoHA Composite Alloplast Infused with Collagen: A Pilot Study in the Sheep Mandible. International Journal of Dentistry, 2013, 2013, 1-7.	1.5	6
103	Histologic and Biomechanical Evaluation of Alumina-Blasted/Acid-Etched and Resorbable Blasting Media Surfaces. Journal of Oral Implantology, 2012, 38, 549-557.	1.0	21
104	Bone Morphometric Evaluation around Immediately Placed Implants Covered with Porcine-Derived Pericardium Membrane: An Experimental Study in Dogs. International Journal of Biomaterials, 2012, 2012, 1-7.	2.4	5
105	Physicochemical Characterization and In Vivo Evaluation of Amorphous and Partially Crystalline Calcium Phosphate Coatings Fabricated on Ti-6Al-4V Implants by the Plasma Spray Method. International Journal of Biomaterials, 2012, 2012, 1-8.	2.4	11
106	Argon-based atmospheric pressure plasma enhances early bone response to rough titanium surfaces. Journal of Biomedical Materials Research - Part A, 2012, 100A, 1901-1906.	4.0	88
107	Characterization and in vivo evaluation of laser sintered dental endosseous implants in dogs. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2012, 100B, 1566-1573.	3.4	30
108	Effect of Si addition on CaF <sub>2</sub> and P <sub>2</sub> O <sub>5</sub> impregnated implant surfaces with nanometer-scale roughness: an experimental study in dogs. Clinical Oral Implants Research, 2012, 23, 373-378.	4.5	9



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109	Abutment Design for Implant-Supported Indirect Composite Molar Crowns: Reliability and Fractography. Journal of Prosthodontics, 2012, 21, 596-603.	3.7	5
110	Effect of Drilling Dimension on Implant Placement Torque and Early Osseointegration Stages: An Experimental Study in Dogs. Journal of Oral and Maxillofacial Surgery, 2012, 70, e43-e50.	1.2	80
111	Assessment of a chair-side argon-based non-thermal plasma treatment on the surface characteristics and integration of dental implants with textured surfaces. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 9, 45-49.	3.1	27
112	Characterization of Five Different Implant Surfaces and Their Effect on Osseointegration: A Study in Dogs. Journal of Periodontology, 2011, 82, 742-750.	3.4	30
113	Interval Cranioplasty: Comparison of Current Standards. Plastic and Reconstructive Surgery, 2011, 127, 1855-1864.	1.4	20
114	Additive CAD/CAM Process for Dental Prostheses. Journal of Prosthodontics, 2011, 20, 93-96.	3.7	93
115	Is lacunocanalicular flow the transducer of mechanical tension stress to osteogenesis in distraction?. Journal of the American College of Surgeons, 2010, 211, S84-S85.	0.5	0
116	Bone Tissue Engineering Strategies for Alveolar Cleft: Review of Preclinical Results and Guidelines for Future Studies. Cleft Palate-Craniofacial Journal, 0, , 105566562211049.	0.9	1