Zvi Schwartz

List of Publications by Year
in descending order

105 papers	8,372 citations	57631 44 h-index	46693 89 g-index
106 all docs	106 docs citations	106 times ranked	8464 citing authors

#	Article	IF	Citations
1	miRâ€‑122 and the WNT/Î²â€catenin pathway inhibit effects of both interleukinâ€‑1Î² and tumor necrosisÂfactorâ€Î± in articular chondrocytes in vitro. Journal of Cellular Biochemistry, 2022, , .	1.2	6
2	The Biological Basis for Surface-dependent Regulation of Osteogenesis and Implant Osseointegration. Journal of the American Academy of Orthopaedic Surgeons, The, 2022, 30, e894-e898.	1.1	5
3	Hydrophilic implants generated using a low-cost dielectric barrier discharge plasma device at the time of placement exhibit increased osseointegration in an animal pre-clinical study: An effect that is sex-dependent. Dental Materials, 2022, 38, 632-645.	1.6	3
4	A Review of Biomimetic Topographies and Their Role in Promoting Bone Formation and Osseointegration: Implications for Clinical Use. Biomimetics, 2022, 7, 46.	1.5	15
5	The Role of Matrix-Bound Extracellular Vesicles in the Regulation of Endochondral Bone Formation. Cells, 2022, 11, 1619.	1.8	14
6	The Relative Expression of ERÎ± Isoforms ERÎ±66 and ERÎ±36 Controls the Cellular Response to 24R,25-Dihydroxyvitamin D3 in Breast Cancer. Molecular Cancer Research, 2021, 19, 99-111.	1.5	5
7	Benchtop plasma treatment of titanium surfaces enhances cell response. Dental Materials, 2021, 37, 690-700.	1.6	12
8	Specific MicroRNAs Found in Extracellular Matrix Vesicles Regulate Proliferation and Differentiation in Growth Plate Chondrocytes. Calcified Tissue International, 2021, 109, 455-468.	1.5	13
9	Advanced Glycation End Products Are Retained in Decellularized Muscle Matrix Derived from Aged Skeletal Muscle. International Journal of Molecular Sciences, 2021, 22, 8832.	1.8	8
10	Differential Effects of Neurectomy and Botox-induced Muscle Paralysis on Bone Phenotype and Titanium Implant Osseointegration. Bone, 2021, 153, 116145.	1.4	10
11	Advanced Glycation End-Products in Skeletal Muscle Aging. Bioengineering, 2021, 8, 168.	1.6	22
12	Hot isostatic pressure treatment of 3D printed Ti6Al4V alters surface modifications and cellular response. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 1262-1273.	1.6	5
13	Acellular mineralized allogenic block bone graft does not remodel during the 10 weeks following concurrent implant placement in a rabbit femoral model. Clinical Oral Implants Research, 2020, 31, 37-48.	1.9	7
14	Growth factors produced by bone marrow stromal cells on nanoroughened titaniumâ€"aluminumâ€"vanadium surfaces program distal MSCs into osteoblasts via BMP2 signaling. Journal of Orthopaedic Research, 2020, 39, 1908-1920.	1.2	9
15	Regulation of mesenchymal stem cell differentiation on microstructured titanium surfaces by semaphorin 3A. Bone, 2020, 134, 115260.	1.4	27
16	Titanium implant surface properties enhance osseointegration in ovariectomy induced osteoporotic rats without pharmacologic intervention. Clinical Oral Implants Research, 2020, 31, 374-387.	1.9	21
17	24R,25-dihydroxyvitamin D3 modulates tumorigenicity in breast cancer in an estrogen receptor-dependent manner. Steroids, 2019, 150, 108447.	0.8	8
18	Osteoblasts grown on microroughened titanium surfaces regulate angiogenic growth factor production through specific integrin receptors. Acta Biomaterialia, 2019, 97, 578-586.	4.1	27

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19	Estrogen signaling and estrogen receptors as prognostic indicators in laryngeal cancer. Steroids, 2019, 152, 108498.	0.8	13
20	24R,25-Dihydroxyvitamin D3 regulates breast cancer cells in vitro and in vivo. Biochimica Et Biophysica Acta - General Subjects, 2019, 1863, 1498-1512.	1.1	14
21	Ibandronate Treatment Before and After Implant Insertion Impairs Osseointegration in Aged Rats with Ovariectomy Induced Osteoporosis. JBMR Plus, 2019, 3, e10184.	1.3	14
22	VEGFâ€A regulates angiogenesis during osseointegration of Ti implants via paracrine/autocrine regulation of osteoblast response to hierarchical microstructure of the surface. Journal of Biomedical Materials Research - Part A, 2019, 107, 423-433.	2.1	25
23	Effect of 17Î²-estradiol on estrogen receptor negative breast cancer cells in an osteolytic mouse model. Steroids, 2019, 142, 28-33.	0.8	5
24	Estradiol receptor profile and estrogen responsiveness in laryngeal cancer and clinical outcomes. Steroids, 2019, 142, 34-42.	0.8	9
25	Regulation of osteoclasts by osteoblast lineage cells depends on titanium implant surface properties. Acta Biomaterialia, 2018, 68, 296-307.	4.1	68
26	MicroRNA Contents in Matrix Vesicles Produced by Growth Plate Chondrocytes are Cell Maturation Dependent. Scientific Reports, 2018, 8, 3609.	1.6	27
27	Surface modification of bulk titanium substrates for biomedical applications via lowâ€temperature microwave hydrothermal oxidation. Journal of Biomedical Materials Research - Part A, 2018, 106, 782-796.	2.1	16
28	Human osteoblasts exhibit sexual dimorphism in their response to estrogen on microstructured titanium surfaces. Biology of Sex Differences, 2018, 9, 30.	1.8	20
29	Cartilage. , 2018, , 405-417.		3
30	Role of Wnt11 during Osteogenic Differentiation of Human Mesenchymal Stem Cells on Microstructured Titanium Surfaces. Scientific Reports, 2018, 8, 8588.	1.6	24
31	Comparable responses of osteoblast lineage cells to microstructured hydrophilic titaniumâ€"zirconium and microstructured hydrophilic titanium. Clinical Oral Implants Research, 2017, 28, e51-e59.	1.9	34
32	Laser Sintered Porous Tiâ€"6Alâ€"4V Implants Stimulate Vertical Bone Growth. Annals of Biomedical Engineering, 2017, 45, 2025-2035.	1.3	37
33	Performance of laser sintered Tiâ€"6Alâ€"4V implants with bone-inspired porosity and micro/nanoscale surface roughness in the rabbit femur. Biomedical Materials (Bristol), 2017, 12, 025021.	1.7	44
34	Bone Morphogenetic Protein 2 Alters Osteogenesis and Anti-Inflammatory Profiles of Mesenchymal Stem Cells Induced by Microtextured Titanium <i>In Vitro</i><sup />. Tissue Engineering - Part A, 2017, 23, 1132-1141.	1.6	24
35	<sup />Roughness and Hydrophilicity as Osteogenic Biomimetic Surface Properties. Tissue Engineering - Part A, 2017, 23, 1479-1489.	1.6	107
36	Effects of lowâ€frequency ultrasound treatment of titanium surface roughness on osteoblast phenotype and maturation. Clinical Oral Implants Research, 2017, 28, e151-e158.	1.9	10

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37	Mineralization of three-dimensional osteoblast cultures is enhanced by the interaction of 1<i>Î±</i>,25-dihydroxyvitamin D3 and BMP2 via two specific vitamin D receptors. Journal of Tissue Engineering and Regenerative Medicine, 2016, 10, 40-51.	1.3	26
38	24R,25-Dihydroxyvitamin D3 Protects against Articular Cartilage Damage following Anterior Cruciate Ligament Transection in Male Rats. PLoS ONE, 2016, 11, e0161782.	1.1	30
39	Novel hydrophilic nanostructured microtexture on direct metal laser sintered Ti-6Al-4V surfaces enhances osteoblast response<i>in vitro</i>and osseointegration in a rabbit model. Journal of Biomedical Materials Research - Part A, 2016, 104, 2086-2098.	2.1	59
40	Selective enrichment of microRNAs in extracellular matrix vesicles produced by growth plate chondrocytes. Bone, 2016, 88, 47-55.	1.4	48
41	Osteogenic response of human MSCs and osteoblasts to hydrophilic and hydrophobic nanostructured titanium implant surfaces. Journal of Biomedical Materials Research - Part A, 2016, 104, 3137-3148.	2.1	71
42	Rapid steroid hormone actions via membrane receptors. Biochimica Et Biophysica Acta - Molecular Cell Research, 2016, 1863, 2289-2298.	1.9	80
43	Titanium surface characteristics, including topography and wettability, alter macrophage activation. Acta Biomaterialia, 2016, 31, 425-434.	4.1	471
44	Implant Materials Generate Different Peri-implant Inflammatory Factors. Spine, 2015, 40, 399-404.	1.0	127
45	Role of Î±2Î²1 integrins in mediating cell shape on microtextured titanium surfaces. Journal of Biomedical Materials Research - Part A, 2015, 103, 564-573.	2.1	38
46	Role of integrin subunits in mesenchymal stem cell differentiation and osteoblast maturation on graphitic carbon-coated microstructured surfaces. Biomaterials, 2015, 51, 69-79.	5.7	86
47	Coordinated regulation of mesenchymal stem cell differentiation on microstructured titanium surfaces by endogenous bone morphogenetic proteins. Bone, 2015, 73, 208-216.	1.4	34
48	Osteoblast Lineage Cells Can Discriminate Microscale Topographic Features on Titaniumâ€“Aluminumâ€“Vanadium Surfaces. Annals of Biomedical Engineering, 2014, 42, 2551-2561.	1.3	67
49	Role of ERÎ±36 in membrane-associated signaling by estrogen. Steroids, 2014, 81, 74-80.	0.8	42
50	New insights on membrane mediated effects of 1Î±,25-dihydroxy vitamin D3 signaling in the musculoskeletal system. Steroids, 2014, 81, 81-87.	0.8	30
51	17Beta-Estradiol Promotes Aggressive Laryngeal Cancer Through Membrane-Associated Estrogen Receptor-Alpha 36. Hormones and Cancer, 2014, 5, 22-32.	4.9	25
52	A review on the wettability of dental implant surfaces I: Theoretical and experimental aspects. Acta Biomaterialia, 2014, 10, 2894-2906.	4.1	356
53	Implant osseointegration and the role of microroughness and nanostructures: Lessons for spine implants. Acta Biomaterialia, 2014, 10, 3363-3371.	4.1	344
54	Estrogen receptor-alpha 36 mediates the anti-apoptotic effect of estradiol in triple negative breast cancer cells via a membrane-associated mechanism. Biochimica Et Biophysica Acta - Molecular Cell Research, 2014, 1843, 2796-2806.	1.9	34

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55	A review on the wettability of dental implant surfaces II: Biological and clinical aspects. Acta Biomaterialia, 2014, 10, 2907-2918.	4.1	607
56	Signaling components of the 1Î±,25(OH)2D3-dependent Pdia3 receptor complex are required for Wnt5a calcium-dependent signaling. Biochimica Et Biophysica Acta - Molecular Cell Research, 2014, 1843, 2365-2375.	1.9	30
57	Plasma membrane Pdia3 and VDR interact to elicit rapid responses to 1Î±,25(OH)2D3. Cellular Signalling, 2013, 25, 2362-2373.	1.7	83
58	Chaperone Properties of Pdia3 Participate in Rapid Membrane Actions of 1Î±,25-Dihydroxyvitamin D3. Molecular Endocrinology, 2013, 27, 1065-1077.	3.7	18
59	Rough titanium alloys regulate osteoblast production of angiogenic factors. Spine Journal, 2013, 13, 1563-1570.	0.6	112
60	The roles of titanium surface micro/nanotopography and wettability on the differential response of human osteoblast lineage cells. Acta Biomaterialia, 2013, 9, 6268-6277.	4.1	252
61	Phospholipase A2 activating protein is required for 1Î±,25-dihydroxyvitamin D3 dependent rapid activation of protein kinase C via Pdia3. Journal of Steroid Biochemistry and Molecular Biology, 2012, 132, 48-56.	1.2	34
62	The responses to surface wettability gradients induced by chitosan nanofilms on microtextured titanium mediated by specific integrin receptors. Biomaterials, 2012, 33, 7386-7393.	5.7	99
63	Differential responses of osteoblast lineage cells to nanotopographically-modified, microroughened titaniumâ€"aluminumâ€"vanadium alloy surfaces. Biomaterials, 2012, 33, 8986-8994.	5.7	141
64	Osteoblast maturation and new bone formation in response to titanium implant surface features are reduced with age. Journal of Bone and Mineral Research, 2012, 27, 1773-1783.	3.1	71
65	Membrane Estrogen Signaling Enhances Tumorigenesis and Metastatic Potential of Breast Cancer Cells via Estrogen Receptor-Î±36 (ERÎ±36). Journal of Biological Chemistry, 2012, 287, 7169-7181.	1.6	89
66	Effect of cleaning and sterilization on titanium implant surface properties and cellular response. Acta Biomaterialia, 2012, 8, 1966-1975.	4.1	169
67	Enhancement of Surface Wettability via the Modification of Microtextured Titanium Implant Surfaces with Polyelectrolytes. Langmuir, 2011, 27, 5976-5985.	1.6	40
68	Coordinated tether formation in anatomically distinct mice growth centers is dependent on a functional vitamin D receptor and is tightly linked to three-dimensional tissue morphology. Bone, 2011, 49, 419-427.	1.4	12
69	Osteoinductivity of Demineralized Bone Matrix Is Independent of Donor Bisphosphonate Use. Journal of Bone and Joint Surgery - Series A, 2011, 93, 2278-2286.	1.4	17
70	Dendritic cell responses to surface properties of clinical titanium surfaces. Acta Biomaterialia, 2011, 7, 1354-1363.	4.1	58
71	Role of non-canonical Wnt signaling in osteoblast maturation on microstructured titanium surfaces. Acta Biomaterialia, 2011, 7, 2740-2750.	4.1	68
72	The effects of combined micron-/submicron-scale surface roughness and nanoscale features on cell proliferation and differentiation. Biomaterials, 2011, 32, 3395-3403.	5.7	709

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73	Mediation of osteogenic differentiation of human mesenchymal stem cells on titanium surfaces by a Wnt-integrin feedback loop. Biomaterials, 2011, 32, 6399-6411.	5.7	128
74	'Smart' biomaterials and osteoinductivity. Nature Reviews Rheumatology, 2011, 7, 1-1.	3.5	1
75	Direct and indirect effects of microstructured titanium substrates on the induction of mesenchymal stem cell differentiation towards the osteoblast lineage. Biomaterials, 2010, 31, 2728-2735.	5.7	265
76	Regulation of angiogenesis during osseointegration by titanium surface microstructure and energy. Biomaterials, 2010, 31, 4909-4917.	5.7	188
77	Bacterial Adhesion on Polyelectrolyte Modified Microstructured Titanium Surfaces. Materials Research Society Symposia Proceedings, 2010, 1277, 6101.	0.1	0
78	Protein-disulfide Isomerase-associated 3 (Pdia3) Mediates the Membrane Response to 1,25-Dihydroxyvitamin D3 in Osteoblasts. Journal of Biological Chemistry, 2010, 285, 37041-37050.	1.6	85
79	Disruption of Pdia3 gene results in bone abnormality and affects 1Î±,25-dihydroxy-vitamin D3-induced rapid activation of PKC. Journal of Steroid Biochemistry and Molecular Biology, 2010, 121, 257-260.	1.2	40
80	Potential of chemically modified hydrophilic surface characteristics to support tissue integration of titanium dental implants. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2009, 88B, 544-557.	1.6	218
81	Osteoprotegerin (OPG) Production by Cells in the Osteoblast Lineage is Regulated by Pulsed Electromagnetic Fields in Cultures Grown on Calcium Phosphate Substrates. Annals of Biomedical Engineering, 2009, 37, 437-444.	1.3	34
82	Formation of Tethers Linking the Epiphysis and Metaphysis Is Regulated by Vitamin D Receptor-Mediated Signaling. Calcified Tissue International, 2009, 85, 134-145.	1.5	18
83	Mechanisms regulating increased production of osteoprotegerin by osteoblasts cultured on microstructured titanium surfaces. Biomaterials, 2009, 30, 3390-3396.	5.7	123
84	Effect of Micrometer-Scale Roughness of the Surface of Ti6Al4V Pedicle Screws in Vitro and in Vivo. Journal of Bone and Joint Surgery - Series A, 2008, 90, 2485-2498.	1.4	133
85	1Î±,25(OH)2D3 is an autocrine regulator of extracellular matrix turnover and growth factor release via ERp60 activated matrix vesicle metalloproteinases. Journal of Steroid Biochemistry and Molecular Biology, 2007, 103, 467-472.	1.2	43
86	Beta-1 integrins mediate substrate dependent effects of 1Î±,25(OH)2D3 on osteoblasts. Journal of Steroid Biochemistry and Molecular Biology, 2007, 103, 606-609.	1.2	15
87	Clinical evaluation of demineralized bone allograft in a hyaluronic acid carrier for sinus lift augmentation in humans: a computed tomography and histomorphometric study. Clinical Oral Implants Research, 2007, 18, 204-211.	1.9	93
88	Plasma membrane requirements for 1Î±,25(OH)2D3 dependent PKC signaling in chondrocytes and osteoblasts. Steroids, 2006, 71, 286-290.	0.8	46
89	Osteoblast-like cells are sensitive to submicron-scale surface structure. Clinical Oral Implants Research, 2006, 17, 258-264.	1.9	217
90	Integrin Î²1 silencing in osteoblasts alters substrate-dependent responses to 1,25-dihydroxy vitamin D3. Biomaterials, 2006, 27, 3716-3725.	5.7	69

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91	Regulation of Growth Plate Chondrocytes by 1,25-Dihydroxyvitamin D3 Requires Caveolae and Caveolin-1. Journal of Bone and Mineral Research, 2006, 21, 1637-1647.	3.1	40
92	1Î±,25(OH)2D3 Regulates Chondrocyte Matrix Vesicle Protein Kinase C (PKC) Directly via G-protein-dependent Mechanisms and Indirectly via Incorporation of PKC during Matrix Vesicle Biogenesis. Journal of Biological Chemistry, 2002, 277, 11828-11837.	1.6	40
93	Evidence for distinct membrane receptors for 1Î±,25-(OH)2D3 and 24R,25-(OH)2D3 in osteoblasts. Steroids, 2002, 67, 235-246.	0.8	67
94	24,25-(OH)2D3 regulates cartilage and bone via autocrine and endocrine mechanisms. Steroids, 2001, 66, 363-374.	0.8	65
95	Activation of Latent Transforming Growth Factor Î²1 by Stromelysin 1 in Extracts of Growth Plate Chondrocyte-Derived Matrix Vesicles. Journal of Bone and Mineral Research, 2001, 16, 1281-1290.	3.1	84
96	Effect of 1Î±,25-Dihydroxyvitamin D₃ and 24R,25-Dihydroxyvitamin D₃ on Metalloproteinase Activity and Cell Maturation in Growth Plate Cartilage In Vivo. Endocrine, 2001, 14, 311-324.	2.2	42
97	1,25-(OH)2D3 modulates growth plate chondrocytes via membrane receptor-mediated protein kinase C by a mechanism that involves changes in phospholipid metabolism and the action of arachidonic acid and PGE2. Steroids, 1999, 64, 129-136.	0.8	83
98	Preferential accumulation in vivo of 24R,25-dihydroxyvitamin D3 in growth plate cartilage of rats. Endocrine, 1996, 5, 147-155.	2.2	26
99	Nongenomic regulation of protein kinase C isoforms by the vitamin D metabolites 1Î±,25-(OH)2D3 and 24R,25-(OH)2D3. , 1996, 167, 380-393.		95
100	Underlying mechanisms at the bone-biomaterial interface.. Journal of Cellular Biochemistry, 1994, 56, 340-347.	1.2	332
101	Matrix vesicles contain metalloproteinases that degrade proteoglycans. Bone and Mineral, 1992, 17, 172-176.	2.0	28
102	Matrix vesicles are enriched in metalloproteinases that degrade proteoglycans. Calcified Tissue International, 1992, 50, 342-349.	1.5	101
103	Role of lipids in calcification of cartilage. The Anatomical Record, 1989, 224, 211-219.	2.3	72
104	The Effects of Vitamin D Metabolites on the Plasma and Matrix Vesicle Membranes of Growth and Resting Cartilage Cells<i>in Vitro</i>*. Endocrinology, 1988, 122, 2851-2860.	1.4	142
105	Direct Effects of 1,25-Dihydroxyvitamin D₃and 24,25-Dihydroxyvitamin D3 on Growth Zone and Resting Zone Chondrocyte Membrane Alkaline Phosphatase and Phospholipase-A2 Specific Activities*. Endocrinology, 1988, 123, 2878-2884.	1.4	150