

Rene Olivares-Navarrete

List of Publications by Year in descending order

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99
papers

6,275
citations

87401

40
h-index

75989

78
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102
all docs

102
docs citations

102
times ranked

8444
citing authors

#	ARTICLE	IF	CITATIONS
1	Roughness and wettability of titanium implant surfaces modify the salivary pellicle composition. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2021, 109, 1017-1028.	1.6	10
2	Surface characteristics on commercial dental implants differentially activate macrophages in vitro and in vivo. <i>Clinical Oral Implants Research</i> , 2021, 32, 487-497.	1.9	20
3	Control of innate immune response by biomaterial surface topography, energy, and stiffness. <i>Acta Biomaterialia</i> , 2021, 133, 58-73.	4.1	79
4	Substrate stiffness induces neutrophil extracellular trap (NET) formation through focal adhesion kinase activation. <i>Biomaterials</i> , 2021, 271, 120715.	5.7	34
5	E-cigarette aerosol mixtures inhibit biomaterial-induced osseointegrative cell phenotypes. <i>Materialia</i> , 2021, 20, 101241.	1.3	1
6	Hydrophilic titanium surfaces reduce neutrophil inflammatory response and NETosis. <i>Biomaterials Science</i> , 2020, 8, 2289-2299.	2.6	54
7	Wnt signaling modulates macrophage polarization and is regulated by biomaterial surface properties. <i>Biomaterials</i> , 2020, 243, 119920.	5.7	74
8	Novel in vitro comparative model of osteogenic and inflammatory cell response to dental implants. <i>Dental Materials</i> , 2019, 35, 176-184.	1.6	47
9	Spatial regulation of gene expression in nonsyndromic sagittal craniosynostosis. <i>Journal of Neurosurgery: Pediatrics</i> , 2018, 22, 620-626.	0.8	5
10	Human osteoblasts exhibit sexual dimorphism in their response to estrogen on microstructured titanium surfaces. <i>Biology of Sex Differences</i> , 2018, 9, 30.	1.8	20
11	Macrophage response to hydrophilic biomaterials regulates MSC recruitment and T-helper cell populations. <i>Biomaterials</i> , 2018, 182, 202-215.	5.7	116
12	Role of Wnt11 during Osteogenic Differentiation of Human Mesenchymal Stem Cells on Microstructured Titanium Surfaces. <i>Scientific Reports</i> , 2018, 8, 8588.	1.6	24
13	Cigarette smoke increases pro-inflammatory markers and inhibits osteogenic differentiation in experimental exposure model. <i>Acta Biomaterialia</i> , 2018, 76, 308-318.	4.1	33
14	Comparable responses of osteoblast lineage cells to microstructured hydrophilic titanium-zirconium and microstructured hydrophilic titanium. <i>Clinical Oral Implants Research</i> , 2017, 28, e51-e59.	1.9	34
15	Dental implant surface chemistry and energy alter macrophage activation <i>in vitro</i> . <i>Clinical Oral Implants Research</i> , 2017, 28, 414-423.	1.9	70
16	Inhibition of angiogenesis impairs bone healing in an <i>in vivo</i> murine rapid resynostosis model. <i>Journal of Biomedical Materials Research - Part A</i> , 2017, 105, 2742-2749.	2.1	15
17	Bone Morphogenetic Protein 2 Alters Osteogenesis and Anti-Inflammatory Profiles of Mesenchymal Stem Cells Induced by Microtextured Titanium <i>In Vitro</i> . <i>Tissue Engineering - Part A</i> , 2017, 23, 1132-1141.	1.6	24
18	Enhancing the osteoblastic differentiation through nanoscale surface modifications. <i>Journal of Biomedical Materials Research - Part A</i> , 2017, 105, 498-509.	2.1	13

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19	Substrate Stiffness Controls Osteoblastic and Chondrocytic Differentiation of Mesenchymal Stem Cells without Exogenous Stimuli. <i>PLoS ONE</i> , 2017, 12, e0170312.	1.1	157
20	E-cigarette aerosol exposure can cause craniofacial defects in <i>Xenopus laevis</i> embryos and mammalian neural crest cells. <i>PLoS ONE</i> , 2017, 12, e0185729.	1.1	38
21	Influence of the Periodontal Status on the Initial Biofilm Formation on Titanium Surfaces. <i>Clinical Implant Dentistry and Related Research</i> , 2016, 18, 174-181.	1.6	15
22	Differential spatial regulation of BMP molecules is associated with single-suture craniosynostosis. <i>Journal of Neurosurgery: Pediatrics</i> , 2016, 18, 83-91.	0.8	11
23	Implant Surface Design Regulates Mesenchymal Stem Cell Differentiation and Maturation. <i>Advances in Dental Research</i> , 2016, 28, 10-17.	3.6	64
24	Role of integrin $\alpha 2 \beta 1$ signaling in myoblast differentiation on aligned polydioxanone scaffolds. <i>Acta Biomaterialia</i> , 2016, 39, 44-54.	4.1	24
25	Hydrogels derived from cartilage matrices promote induction of human mesenchymal stem cell chondrogenic differentiation. <i>Acta Biomaterialia</i> , 2016, 43, 139-149.	4.1	34
26	Osteogenic response of human MSCs and osteoblasts to hydrophilic and hydrophobic nanostructured titanium implant surfaces. <i>Journal of Biomedical Materials Research - Part A</i> , 2016, 104, 3137-3148.	2.1	71
27	Characterization of osteoarthritic human knees indicates potential sex differences. <i>Biology of Sex Differences</i> , 2016, 7, 27.	1.8	30
28	Craniosynostosis and Resynostosis. <i>Journal of Dental Research</i> , 2016, 95, 846-852.	2.5	12
29	Titanium surface characteristics, including topography and wettability, alter macrophage activation. <i>Acta Biomaterialia</i> , 2016, 31, 425-434.	4.1	471
30	Role of integrin $\alpha 2 \beta 1$ in mediating osteoblastic differentiation on three-dimensional titanium scaffolds with submicron-scale texture. <i>Journal of Biomedical Materials Research - Part A</i> , 2015, 103, 1907-1918.	2.1	26
31	Regulation of Osteoblast Differentiation by Acid-Etched and/or Grit-Blasted Titanium Substrate Topography Is Enhanced by $1,25(\text{OH})_2\text{D}_3$ in a Sex-Dependent Manner. <i>BioMed Research International</i> , 2015, 2015, 1-9.	0.9	13
32	Automated analysis and predictive modeling of craniosynostosis with cranial suture measurements and intracranial volume asymmetries using the snake algorithm. <i>Journal of Biomedical Engineering and Informatics</i> , 2015, 2, 132.	0.2	1
33	Implant Materials Generate Different Peri-implant Inflammatory Factors. <i>Spine</i> , 2015, 40, 399-404.	1.0	127
34	Role of $\alpha 2 \beta 1$ integrins in mediating cell shape on microtextured titanium surfaces. <i>Journal of Biomedical Materials Research - Part A</i> , 2015, 103, 564-573.	2.1	38
35	Role of integrin subunits in mesenchymal stem cell differentiation and osteoblast maturation on graphitic carbon-coated microstructured surfaces. <i>Biomaterials</i> , 2015, 51, 69-79.	5.7	86
36	A review of $1,25(\text{OH})_2\text{D}_3$ dependent Pdia3 receptor complex components in Wnt5a non-canonical pathway signaling. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2015, 152, 84-88.	1.2	29

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37	Coordinated regulation of mesenchymal stem cell differentiation on microstructured titanium surfaces by endogenous bone morphogenetic proteins. <i>Bone</i> , 2015, 73, 208-216.	1.4	34
38	Osteoblast maturation on microtextured titanium involves paracrine regulation of bone morphogenetic protein signaling. <i>Journal of Biomedical Materials Research - Part A</i> , 2015, 103, 1721-1731.	2.1	20
39	Characterization of Distinct Classes of Differential Gene Expression in Osteoblast Cultures from Non-Syndromic Craniosynostosis Bone. <i>Journal of Genomics</i> , 2014, 2, 121-130.	0.6	9
40	Superposition of nanostructures on microrough titanium-aluminum-vanadium alloy surfaces results in an altered integrin expression profile in osteoblasts. <i>Connective Tissue Research</i> , 2014, 55, 164-168.	1.1	20
41	Osteoblast Lineage Cells Can Discriminate Microscale Topographic Features on Titanium-Aluminum-Vanadium Surfaces. <i>Annals of Biomedical Engineering</i> , 2014, 42, 2551-2561.	1.3	67
42	Implant osseointegration and the role of microroughness and nanostructures: Lessons for spine implants. <i>Acta Biomaterialia</i> , 2014, 10, 3363-3371.	4.1	344
43	Osteoblasts Secrete Pro-Inflammatory Cytokines on PEEK but Anti-inflammatory Cytokines on Microstructured Titanium. <i>Spine Journal</i> , 2014, 14, S87.	0.6	2
44	Rapidly polymerizing injectable click hydrogel therapy to delay bone growth in a murine re-synostosis model. <i>Biomaterials</i> , 2014, 35, 9698-9708.	5.7	45
45	Mechanical stiffness as an improved single-cell indicator of osteoblastic human mesenchymal stem cell differentiation. <i>Journal of Biomechanics</i> , 2014, 47, 2197-2204.	0.9	61
46	Signaling components of the 1 α ,25(OH) $_2$ D $_3$ -dependent Pdia3 receptor complex are required for Wnt5a calcium-dependent signaling. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2014, 1843, 2365-2375.	1.9	30
47	Micro/nanorough titanium-aluminum-vanadium alloy surfaces trigger alternate osteoblast integrin expression profile. , 2014, , .		0
48	Impaired Bone Formation in Pdia3 Deficient Mice. <i>PLoS ONE</i> , 2014, 9, e112708.	1.1	19
49	Role of the N-terminal peptide of amelogenin on osteoblastic differentiation of human mesenchymal stem cells. , 2014, 28, 1-10.		4
50	Chaperone Properties of Pdia3 Participate in Rapid Membrane Actions of 1 α ,25-Dihydroxyvitamin D $_3$. <i>Molecular Endocrinology</i> , 2013, 27, 1065-1077.	3.7	18
51	Electrical polarization of titanium surfaces for the enhancement of osteoblast differentiation. <i>Bioelectromagnetics</i> , 2013, 34, 599-612.	0.9	28
52	Rough titanium alloys regulate osteoblast production of angiogenic factors. <i>Spine Journal</i> , 2013, 13, 1563-1570.	0.6	112
53	Rapid re-synostosis following suturectomy in pediatric mice is age and location dependent. <i>Bone</i> , 2013, 53, 284-293.	1.4	7
54	Microstructured titanium regulates interleukin production by osteoblasts, an effect modulated by exogenous BMP-2. <i>Acta Biomaterialia</i> , 2013, 9, 5821-5829.	4.1	35

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55	The roles of titanium surface micro/nanotopography and wettability on the differential response of human osteoblast lineage cells. <i>Acta Biomaterialia</i> , 2013, 9, 6268-6277.	4.1	252
56	Biphasic Fusion of the Murine Posterior Frontal Suture. <i>Plastic and Reconstructive Surgery</i> , 2013, 131, 727-740.	0.7	6
57	Amelogenin Peptide Extract Increases Differentiation and Angiogenic and Local Factor Production and Inhibits Apoptosis in Human Osteoblasts. <i>ISRN Biomaterials</i> , 2013, 2013, 1-11.	0.7	2
58	Osteogenic Differentiation of Stem Cells Alters Vitamin D Receptor Expression. <i>Stem Cells and Development</i> , 2012, 21, 1726-1735.	1.1	24
59	Osteoblasts exhibit a more differentiated phenotype and increased bone morphogenetic protein production on titanium alloy substrates than on poly-ether-ether-ketone. <i>Spine Journal</i> , 2012, 12, 265-272.	0.6	168
60	The responses to surface wettability gradients induced by chitosan nanofilms on microtextured titanium mediated by specific integrin receptors. <i>Biomaterials</i> , 2012, 33, 7386-7393.	5.7	99
61	BMP2 induces osteoblast apoptosis in a maturation state and noggin-dependent manner. <i>Journal of Cellular Biochemistry</i> , 2012, 113, 3236-3245.	1.2	44
62	Differential responses of osteoblast lineage cells to nanotopographically-modified, microroughened titanium-aluminum-vanadium alloy surfaces. <i>Biomaterials</i> , 2012, 33, 8986-8994.	5.7	141
63	Interrelationship of Cranial Suture Fusion, Basicranial Development, and Resynostosis Following Suturectomy in <i>Twist1</i> Mice, a Murine Model of Saethre-Chotzen Syndrome. <i>Calcified Tissue International</i> , 2012, 91, 255-266.	1.5	17
64	Effects of resveratrol on enrichment of adipose-derived stem cells and their differentiation to osteoblasts in two-and three-dimensional cultures. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2012, 6, s34-s46.	1.3	22
65	Osteoblast maturation and new bone formation in response to titanium implant surface features are reduced with age. <i>Journal of Bone and Mineral Research</i> , 2012, 27, 1773-1783.	3.1	71
66	Membrane Estrogen Signaling Enhances Tumorigenesis and Metastatic Potential of Breast Cancer Cells via Estrogen Receptor- β (ER β). <i>Journal of Biological Chemistry</i> , 2012, 287, 7169-7181.	1.6	89
67	Algorithm to Assess Cranial Suture Fusion with Varying and Discontinuous Mineral Density. <i>Annals of Biomedical Engineering</i> , 2012, 40, 1597-1609.	1.3	6
68	Effects of structural properties of electrospun TiO ₂ nanofiber meshes on their osteogenic potential. <i>Acta Biomaterialia</i> , 2012, 8, 878-885.	4.1	59
69	Effect of cleaning and sterilization on titanium implant surface properties and cellular response. <i>Acta Biomaterialia</i> , 2012, 8, 1966-1975.	4.1	169
70	Influence of topography and hydrophilicity on initial oral biofilm formation on microstructured titanium surfaces <i>in vitro</i> . <i>Clinical Oral Implants Research</i> , 2012, 23, 301-307.	1.9	74
71	Use of polyelectrolyte thin films to modulate Osteoblast response to microstructured titanium surfaces. <i>Biomaterials</i> , 2012, 33, 5267-5277.	5.7	33
72	Enhancement of Surface Wettability via the Modification of Microtextured Titanium Implant Surfaces with Polyelectrolytes. <i>Langmuir</i> , 2011, 27, 5976-5985.	1.6	40

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73	Bone Tissue Grafting and Tissue Engineering Concepts. , 2011, , 237-255.		2
74	Electrical Implications of Corrosion for Osseointegration of Titanium Implants. Journal of Dental Research, 2011, 90, 1389-1397.	2.5	102
75	Biocompatibility of Niobium Coatings. Coatings, 2011, 1, 72-87.	1.2	88
76	21: TEMPORAL CHANGES IN GENE EXPRESSION REGULATING MOUSE POSTERIOR FRONTAL SUTURE FUSION. Plastic and Reconstructive Surgery, 2011, 127, 19.	0.7	0
77	109: INCREASED OSTEOBLASTOGENESIS AND WNT/BMP GENE REGULATION IN NON-SYNDROMIC LAMBDROID CRANIOSYNOSTOSIS. Plastic and Reconstructive Surgery, 2011, 127, 63.	0.7	0
78	124: A NOVEL ALGORITHM TO ANALYZE CORONAL SUTURE DEVELOPMENT IN MICE. Plastic and Reconstructive Surgery, 2011, 127, 70.	0.7	5
79	16: GENE EXPRESSION PROFILE IN NON-SYNDROMIC METOPIC CRANIOSYNOSTOSIS. Plastic and Reconstructive Surgery, 2011, 127, 16.	0.7	0
80	Role of non-canonical Wnt signaling in osteoblast maturation on microstructured titanium surfaces. Acta Biomaterialia, 2011, 7, 2740-2750.	4.1	68
81	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
82	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
83	The role of phospholipase D in osteoblast response to titanium surface microstructure. Journal of Biomedical Materials Research - Part A, 2010, 93A, 897-909.	2.1	9
84	197A: THE DEVELOPMENT OF NOVEL MICRO-COMPUTED TOMOGRAPHY SNAKE ALGORITHM TO DETERMINE TIME COURSE OF POSTERIOR FRONTAL SUTURE CLOSURE IN MICE. Plastic and Reconstructive Surgery, 2010, 125, 129.	0.7	4
85	161A: PHARMACOLOGICAL ENRICHMENT: A NEW APPROACH TO ADIPOSE-DERIVED STEM CELL ENRICHMENT. Plastic and Reconstructive Surgery, 2010, 125, 108.	0.7	0
86	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
87	Use of molecular beacons to image effects of titanium surface microstructure on β 1 integrin expression in live osteoblast-like cells. Biomaterials, 2010, 31, 7640-7647.	5.7	10
88	Regulation of angiogenesis during osseointegration by titanium surface microstructure and energy. Biomaterials, 2010, 31, 4909-4917.	5.7	188
89	The roles of Wnt signaling modulators Dickkopf-1 (Dkk1) and Dickkopf-2 (Dkk2) and cell maturation state in osteogenesis on microstructured titanium surfaces. Biomaterials, 2010, 31, 2015-2024.	5.7	61
90	Sex dependent regulation of osteoblast response to implant surface properties by systemic hormones. Biology of Sex Differences, 2010, 1, 4.	1.8	24

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91	Bacterial Adhesion on Polyelectrolyte Modified Microstructured Titanium Surfaces. Materials Research Society Symposia Proceedings, 2010, 1277, 6101.	0.1	0
92	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
93	Biocompatibility and Anti-microbial Properties of Silver Modified Amorphous Carbon Films. Materials Research Society Symposia Proceedings, 2009, 1244, 201.	0.1	2
94	Mechanisms regulating increased production of osteoprotegerin by osteoblasts cultured on microstructured titanium surfaces. Biomaterials, 2009, 30, 3390-3396.	5.7	123
95	Oral bacterial adhesion on amorphous carbon films. Diamond and Related Materials, 2009, 18, 1179-1185.	1.8	24
96	Integrin $\alpha 2 \beta 1$ plays a critical role in osteoblast response to micron-scale surface structure and surface energy of titanium substrates. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15767-15772.	3.3	201
97	Beta-1 integrins mediate substrate dependent effects of $1,25(OH)_2D_3$ on osteoblasts. Journal of Steroid Biochemistry and Molecular Biology, 2007, 103, 606-609.	1.2	15
98	Integrin $\alpha 2 \beta 1$ silencing in osteoblasts alters substrate-dependent responses to 1,25-dihydroxy vitamin D3. Biomaterials, 2006, 27, 3716-3725.	5.7	69
99	Oral Bacterial Adhesion and Biocompatibility of Silver-Amorphous Carbon Films: A Surface Modification for Dental Implants. , 0, , .		1