Carlos Ortiz de SolÃ³rzano

List of Publications by Year
in descending order

123 papers	7,122 citations	109321 35 h-index	66911 78 g-index
124 all docs	124 docs citations	124 times ranked	11629 citing authors

#	Article	IF	Citations
1	Complement C5a induces the formation of neutrophil extracellular traps by myeloid-derived suppressor cells to promote metastasis. Cancer Letters, 2022, 529, 70-84.	7.2	51
2	Tumor ENPP1 (CD203a)/Haptoglobin Axis Exploits Myeloid-Derived Suppressor Cells to Promote Post-Radiotherapy Local Recurrence in Breast Cancer. Cancer Discovery, 2022, 12, 1356-1377.	9.4	22
3	NaroNet: Discovery of tumor microenvironment elements from highly multiplexed images. Medical Image Analysis, 2022, 78, 102384.	11.6	15
4	Muscular and Tendon Degeneration after Achilles Rupture: New Insights into Future Repair Strategies. Biomedicines, 2022, 10, 19.	3.2	4
5	Design and validation of a tunable inertial microfluidic system for the efficient enrichment of circulating tumor cells in blood. Bioengineering and Translational Medicine, 2022, 7, .	7.1	5
6	Development and multimodal characterization of an elastase-induced emphysema mouse disease model for the COPD frequent bacterial exacerbator phenotype. Virulence, 2021, 12, 1672-1688.	4.4	2
7	Targeting aberrant DNA methylation in mesenchymal stromal cells as a treatment for myeloma bone disease. Nature Communications, 2021, 12, 421.	12.8	29
8	Modeling the Mechanobiology of Cancer Cell Migration Using 3D Biomimetic Hydrogels. Gels, 2021, 7, 17.	4.5	23
9	Synplex: a synthetic simulator of highly multiplexed histological images. , 2021, , .		1
10	Heterogenous presence of neutrophil extracellular traps in human solid tumours is partially dependent on <scp>IL</scp>â€8. Journal of Pathology, 2021, 255, 190-201.	4.5	49
11	CRMP2 as a Candidate Target to Interfere with Lung Cancer Cell Migration. Biomolecules, 2021, 11, 1533.	4.0	2
12	CD137 (4-1BB) costimulation of CD8+ T cells is more potent when provided in cis than in trans with respect to CD3-TCR stimulation. Nature Communications, 2021, 12, 7296.	12.8	22
13	NMF-RI: blind spectral unmixing of highly mixed multispectral flow and image cytometry data. Bioinformatics, 2020, 36, 1590-1598.	4.1	14
14	The use of mixed collagen-Matrigel matrices of increasing complexity recapitulates the biphasic role of cell adhesion in cancer cell migration: ECM sensing, remodeling and forces at the leading edge of cancer invasion. PLoS ONE, 2020, 15, e0220019.	2.5	62
15	Unsupervised Learning of Contextual Information in Multiplex Immunofluorescence Tissue Cytometry. , 2020, , .		3
16	Title is missing!. , 2020, 15, e0220019.		0
17	Title is missing!. , 2020, 15, e0220019.		0
18	Title is missing!. , 2020, 15, e0220019.		0

#	Article	IF	Citations
19	Title is missing!. , 2020, 15, e0220019.		0
20	Preclinical Evaluation of the Antimicrobial-Immunomodulatory Dual Action of Xenohormetic Molecules against Haemophilus influenzae Respiratory Infection. Biomolecules, 2019, 9, 891.	4.0	10
21	3-D Quantification of Filopodia in Motile Cancer Cells. IEEE Transactions on Medical Imaging, 2019, 38, 862-872.	8.9	19
22	Dynamic Atlas-Based Segmentation and Quantification of Neuromelanin-Rich Brainstem Structures in Parkinson Disease. IEEE Transactions on Medical Imaging, 2019, 38, 813-823.	8.9	36
23	Modulation of Haemophilus influenzae interaction with hydrophobic molecules by the VacJ/MlaA lipoprotein impacts strongly on its interplay with the airways. Scientific Reports, 2018, 8, 6872.	3.3	19
24	Segmentation of actin-stained 3D fluorescent cells with filopodial protrusions using convolutional neural networks. , 2018, , .		8
25	Miniaturized microscope for high throughput screening of tumor spheroids in microfluidic devices. , 2018, , .		1
26	Abstract 178: Quantification of matrix remodeling during H1299 lung cancer cell migration in microfluidic devices. , 2018, , .		0
27	An objective comparison of cell-tracking algorithms. Nature Methods, 2017, 14, 1141-1152.	19.0	399
28	The Novel Pan-PIM Kinase Inhibitor, PIM447, Displays Dual Antimyeloma and Bone-Protective Effects, and Potently Synergizes with Current Standards of Care. Clinical Cancer Research, 2017, 23, 225-238.	7.0	42
29	Î²3 integrin expression is required for invadopodia-mediated ECM degradation in lung carcinoma cells. PLoS ONE, 2017, 12, e0181579.	2.5	25
30	Characterization of three-dimensional cancer cell migration in mixed collagen-Matrigel scaffolds using microfluidics and image analysis. PLoS ONE, 2017, 12, e0171417.	2.5	116
31	Phenotypic and metabolic features of mouse diaphragm and gastrocnemius muscles in chronic lung carcinogenesis: influence of underlying emphysema. Journal of Translational Medicine, 2016, 14, 244.	4.4	29
32	Complementary Effects of Interleukin-15 and Alpha Interferon Induce Immunity in Hepatitis B Virus Transgenic Mice. Journal of Virology, 2016, 90, 8563-8574.	3.4	22
33	Quantification of the 3D collagen network geometry in confocal reflection microscopy. , 2015, , .		3
34	Automated <scp>N</scp>euromelanin <scp>I</scp>maging as a <scp>D</scp>iagnostic <scp>B</scp>iomarker for <scp>P</scp>arkinson's <scp>D</scp>isease. Movement Disorders, 2015, 30, 945-952.	3.9	138
35	Free Form Deformationâ€“Based Image Registration Improves Accuracy of Traction Force Microscopy. PLoS ONE, 2015, 10, e0144184.	2.5	23
36	Cell Tracking Accuracy Measurement Based on Comparison of Acyclic Oriented Graphs. PLoS ONE, 2015, 10, e0144959.	2.5	68

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37	Atlas-based segmentation of brainstem regions in neuromelanin-sensitive magnetic resonance images. , 2015, , .		1
38	Characterization of the role of collagen network structure and composition in cancer cell migration. , 2015, 2015, 8139-42.		2
39	Quantitative Assessment of Emphysema Severity in Histological Lung Analysis. Annals of Biomedical Engineering, 2015, 43, 2515-2529.	2.5	3
40	Validation tool for traction force microscopy. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 1377-1385.	1.6	7
41	Quantification of pulmonary vessel diameter in low-dose CT images. Proceedings of SPIE, 2015, , .	0.8	0
42	Toward a Morphodynamic Model of the Cell: Signal processing for cell modeling. IEEE Signal Processing Magazine, 2015, 32, 20-29.	5.6	13
43	Neuregulin-1Î² Induces Mature Ventricular Cardiac Differentiation from Induced Pluripotent Stem Cells Contributing to Cardiac Tissue Repair. Stem Cells and Development, 2015, 24, 484-496.	2.1	36
44	A benchmark for comparison of cell tracking algorithms. Bioinformatics, 2014, 30, 1609-1617.	4.1	345
45	Objective comparison of particle tracking methods. Nature Methods, 2014, 11, 281-289.	19.0	805
46	Comparing algorithms for automated vessel segmentation in computed tomography scans of the lung: the VESSEL12 study. Medical Image Analysis, 2014, 18, 1217-1232.	11.6	131
47	A Novel Automated Microscopy Platform for Multiresolution Multispectral Early Detection of Lung Cancer Cells in Bronchoalveolar Lavage Samples. IEEE Systems Journal, 2014, 8, 985-994.	4.6	12
48	Preclinical Activity of the Oral Proteasome Inhibitor MLN9708 in Myeloma Bone Disease. Clinical Cancer Research, 2014, 20, 1542-1554.	7.0	75
49	Individual nodule tracking in micro-CT images of a longitudinal lung cancer mouse model. Medical Image Analysis, 2013, 17, 1095-1105.	11.6	18
50	Multiscalein situanalysis of the role of dyskerin in lung cancer cells. Integrative Biology (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 22	1.3	13
51	Numerical estimation of 3D mechanical forces exerted by cells on non-linear materials. Journal of Biomechanics, 2013, 46, 50-55.	2.1	11
52	Functional benefits of PLGA particulates carrying VEGF and CoQ10 in an animal of myocardial ischemia. International Journal of Pharmaceutics, 2013, 454, 784-790.	5.2	55
53	Segmentation and Shape Tracking of Whole Fluorescent Cells Based on the Chanâ€“Vese Model. IEEE Transactions on Medical Imaging, 2013, 32, 995-1006.	8.9	86
54	Modeling airway probability. , 2013, , .		2

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55	Registration of multiple stained histological sections. , 2013, , .		11
56	Automatic quantification of filopodia-based cell migration. , 2013, , .		0
57	A probabilistic model of emphysema based on granulometry analysis. , 2013, , .		1
58	Smokers with CT Detected Emphysema and No Airway Obstruction Have Decreased Plasma Levels of EGF, IL-15, IL-8 and IL-1ra. PLoS ONE, 2013, 8, e60260.	2.5	9
59	Efficient Blind Spectral Unmixing of Fluorescently Labeled Samples Using Multi-Layer Non-Negative Matrix Factorization. PLoS ONE, 2013, 8, e78504.	2.5	23
60	Quantification of Lung Damage in an Elastase-Induced Mouse Model of Emphysema. International Journal of Biomedical Imaging, 2012, 2012, 1-11.	3.9	47
61	Cardiotrophin-1 determines liver engraftment of syngenic colon carcinoma cells through an immune system-mediated mechanism. OncoImmunology, 2012, 1, 1527-1536.	4.6	8
62	Evaluation of Monocytes as Carriers for Armed Oncolytic Adenoviruses in Murine and Syrian Hamster Models of Cancer. Human Gene Therapy, 2012, 23, 1258-1268.	2.7	19
63	Characterization of emphysema in low dose computed tomography images using maximum likelihood estimation of the scale exponent. , 2012, , .		1
64	Individual nodule tracking in micro-CT images of a mouse model of lung cancer. , 2012, , .		0
65	Adiposoft: automated software for the analysis of white adipose tissue cellularity in histological sections. Journal of Lipid Research, 2012, 53, 2791-2796.	4.2	308
66	Fast tracking of fluorescent cells based on the Chan-Vese model. , 2012, , .		4
67	Detecting airway remodeling in COPD and emphysema using low-dose CT imaging. Proceedings of SPIE, 2012, , .	0.8	1
68	New Strategies for Echocardiographic Evaluation of Left Ventricular Function in a Mouse Model of Long-Term Myocardial Infarction. PLoS ONE, 2012, 7, e41691.	2.5	47
69	Robust, Standardized Quantification of Pulmonary Emphysema in Low Dose CT Exams. Academic Radiology, 2011, 18, 1382-1390.	2.5	14
70	Evaluation of micro-CT for emphysema assessment in mice: comparison with non-radiological techniques. European Radiology, 2011, 21, 954-962.	4.5	38
71	Inhibition of telomerase activity preferentially targets aldehyde dehydrogenase-positive cancer stem-like cells in lung cancer. Molecular Cancer, 2011, 10, 96.	19.2	86
72	Longitudinal study of a mouse model of chronic pulmonary inflammation using breath hold gated micro-CT. European Radiology, 2010, 20, 2600-2608.	4.5	34

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73	Sustained release of VEGF through PLGA microparticles improves vasculogenesis and tissue remodeling in an acute myocardial ischemiaâ€“reperfusion model. Journal of Controlled Release, 2010, 147, 30-37.	9.9	184
74	3D reconstruction of histological sections: Application to mammary gland tissue. Microscopy Research and Technique, 2010, 73, 1019-1029.	2.2	565
75	Spatially Variant Convolution With Scaled B-Splines. IEEE Transactions on Image Processing, 2010, 19, 11-24.	9.8	13
76	Non-rigid consistent registration of 2D image sequences. Physics in Medicine and Biology, 2010, 55, 6215-6242.	3.0	16
77	Automatic leakage detection and recovery for airway tree extraction in chest CT images. , 2010, , .		3
78	In Situ Analysis of Cell Populations: Long-Term Label-Retaining Cells. Methods in Molecular Biology, 2010, 621, 1-28.	0.9	8
79	Limiting-Dilution Transplantation Assays in Mammary Stem Cell Studies. Methods in Molecular Biology, 2010, 621, 29-47.	0.9	18
80	Use of Stem Cell Markers in Dissociated Mammary Populations. Methods in Molecular Biology, 2010, 621, 49-55.	0.9	8
81	Treatment of Pancreatic Cancer With an Oncolytic Adenovirus Expressing Interleukin-12 in Syrian Hamsters. Molecular Therapy, 2009, 17, 614-622.	8.2	84
82	Segmentation of Touching Cell Nuclei Using a Two-Stage Graph Cut Model. Lecture Notes in Computer Science, 2009, , 410-419.	1.3	26
83	Airway segmentation and analysis for the study of mouse models of lung disease using micro-CT. Physics in Medicine and Biology, 2009, 54, 7009-7024.	3.0	34
84	Combination Strategies in Multi-Atlas Image Segmentation: Application to Brain MR Data. IEEE Transactions on Medical Imaging, 2009, 28, 1266-1277.	8.9	465
85	Influence of dietary macronutrient composition on adiposity and cellularity of different fat depots in Wistar rats. Journal of Physiology and Biochemistry, 2009, 65, 387-395.	3.0	37
86	Halton sampling for autofocus. Journal of Microscopy, 2009, 235, 50-58.	1.8	22
87	Evaluation of bioluminescent imaging for noninvasive monitoring of colorectal cancer progression in the liver and its response to immunogene therapy. Molecular Cancer, 2009, 8, 2.	19.2	33
88	A Two-Phase Segmentation of Cell Nuclei Using Fast Level Set-Like Algorithms. Lecture Notes in Computer Science, 2009, , 390-399.	1.3	3
89	Mapping mammary gland architecture using multi-scale in situ analysis. Integrative Biology (United) Tj ETQq1 1 0.784314 rgBT /Overl	1.3	21
90	Photon migration simulator for fluorescence tomography. Proceedings of SPIE, 2008, , .	0.8	1

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91	Efficient classifier generation and weighted voting for atlas-based segmentation: two small steps faster and closer to the combination oracle. Proceedings of SPIE, 2008, , .	0.8	15
92	Automation of the detection of lung cancer cells in minimal samples of bronchioalveolar lavage. , 2008, , .		0
93	Telomeres and Telomerase in Lung Cancer. Journal of Thoracic Oncology, 2008, 3, 1085-1088.	1.1	51
94	RESTORATION OF MICRO-CT IMAGES USING LOCALLY ADAPTIVE B-SPLINE SMOOTHING. , 2007, , .		0
95	Computer Assisted Detection of Cancer Cells in Minimal Samples of Lung Cancer. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5517-20.	0.5	3
96	Blind Spectral Unmixing of M-FISH Images by Non-negative Matrix Factorization. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 6248-51.	0.5	8
97	Restoration of Biomedical Images using Locally Adaptive B-Spline Smoothing. , 2007, , .		2
98	Molecular Analysis of a Multistep Lung Cancer Model Induced by Chronic Inflammation Reveals Epigenetic Regulation of p16, Activation of the DNA Damage Response Pathway. Neoplasia, 2007, 9, 840-IN12.	5.3	86
99	High-throughput analysis of multispectral images of breast cancer tissue. IEEE Transactions on Image Processing, 2006, 15, 2259-2268.	9.8	53
100	Segmentation on nuclei and cells using membrane related protein markers. Journal of Microscopy, 2006, 222, 67-67.	1.8	3
101	Quantitative in vivo microscopy: the return from the â€˜omicsâ€™. Current Opinion in Biotechnology, 2006, 17, 501-510.	6.6	11
102	Consistent and Elastic Registration of Histological Sections Using Vector-Spline Regularization. Lecture Notes in Computer Science, 2006, , 85-95.	1.3	214
103	A tool for the quantitative spatial analysis of complex cellular systems. IEEE Transactions on Image Processing, 2005, 14, 1300-1313.	9.8	14
104	Automatic segmentation of histological structures in mammary gland tissue sections. Journal of Biomedical Optics, 2004, 9, 444.	2.6	21
105	A tool for the quantitative spatial analysis of mammary gland epithelium. , 2004, 2004, 1549-52.		1
106	In situ analyses of genome instability in breast cancer. Nature Genetics, 2004, 36, 984-988.	21.4	337
107	Absence of telomerase and shortened telomeres have minimal effects on skin and pancreatic carcinogenesis elicited by viral oncogenes. Cancer Cell, 2004, 6, 373-385.	16.8	19
108	Quantitative Image Analysis in Mammary Gland Biology. Journal of Mammary Gland Biology and Neoplasia, 2004, 9, 343-359.	2.7	12

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109	Quantitative Three-Dimensional Microscopy Approaches With Applications in Breast Cancer Biology Including Measurement of Genomic Instability. Journal of Mammary Gland Biology and Neoplasia, 2004, 9, 383-391.	2.7	0
110	Automatic segementation of histological structures in normal and neoplastic mammary gland tissue sections. , 2003, , .		0
111	Microscopy environment for quantitative spatial and temporal analysis of multicellular interactions. , 2002, , .		0
112	Applications of quantitative digital image analysis to breast cancer research. Microscopy Research and Technique, 2002, 59, 119-127.	2.2	15
113	System for combined three-dimensional morphological and molecular analysis of thick tissue specimens. Microscopy Research and Technique, 2002, 59, 522-530.	2.2	40
114	Quantification of epithelial cells in coculture with fibroblasts by fluorescence image analysis. Cytometry, 2002, 49, 73-82.	1.8	37
115	A System for Computer-based Reconstruction of 3-Dimensional Structures from Serial Tissue Sections: an Application to the Study of Normal and Neoplastic Mammary Gland Biology. Microscopy and Microanalysis, 2001, 7, 964-965.	0.4	0
116	Segmentation of nuclei and cells using membrane related protein markers. Journal of Microscopy, 2001, 201, 404-415.	1.8	139
117	<title>Analysis of the 3D spatial organization of cells and subcellular structures in tissue</title>. , 2000, 3921, 66.		6
118	A geometric model for 3-D confocal image analysis. IEEE Transactions on Biomedical Engineering, 2000, 47, 1600-1609.	4.2	69
119	Segmentation of confocal microscope images of cell nuclei in thick tissue sections. Journal of Microscopy, 1999, 193, 212-226.	1.8	146
120	Applying watershed algorithms to the segmentation of clustered nuclei. , 1998, 28, 289-297.		370
121	Automated FISH spot counting in interphase nuclei: Statistical validation and data correction. , 1998, 31, 93-99.		52
122	<title>Two-dimensional defocusing correction using artificial neural nets</title>. , 1998, 3261, 127.		0
123	Evaluation of autofocus functions in molecular cytogenetic analysis. Journal of Microscopy, 1997, 188, 264-272.	1.8	329