Carlos Borau

List of Publications by Year
in descending order

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19 papers	495 citations	687220 13 h-index	839398 18 g-index
19 all docs	19 docs citations	19 times ranked	631 citing authors

#	Article	IF	Citations
1	Mechano-sensing and cell migration: a 3D model approach. Physical Biology, 2011, 8, 066008.	0.8	59
2	From individual to collective 3D cancer dissemination: roles of collagen concentration and TGF-Î². Scientific Reports, 2018, 8, 12723.	1.6	58
3	Dynamic Mechanisms of Cell Rigidity Sensing: Insights from a Computational Model of Actomyosin Networks. PLoS ONE, 2012, 7, e49174.	1.1	57
4	Degradation of extracellular matrix regulates osteoblast migration: A microfluidic-based study. Bone, 2018, 107, 10-17.	1.4	53
5	Morphological Transformation and Force Generation of Active Cytoskeletal Networks. PLoS Computational Biology, 2017, 13, e1005277.	1.5	48
6	Fibroblast Migration in 3D is Controlled by Haptotaxis in a Non-muscle Myosin II-Dependent Manner. Annals of Biomedical Engineering, 2015, 43, 3025-3039.	1.3	41
7	Quantifying 3D chemotaxis in microfluidic-based chips with step gradients of collagen hydrogel concentrations. Integrative Biology (United Kingdom), 2017, 9, 339-349.	0.6	29
8	Probabilistic Voxel-Fe model for single cell motility in 3D. In Silico Cell and Tissue Science, 2014, 1, 2.	2.6	26
9	Quantification of angiogenic sprouting under different growth factors in a microfluidic platform. Journal of Biomechanics, 2016, 49, 1340-1346.	0.9	26
10	Matrix architecture plays a pivotal role in 3D osteoblast migration: The effect of interstitial fluid flow. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 83, 52-62.	1.5	20
11	Localized tissue mineralization regulated by bone remodelling: A computational approach. PLoS ONE, 2017, 12, e0173228.	1.1	20
12	Image-based Characterization of 3D Collagen Networks and the Effect of Embedded Cells. Microscopy and Microanalysis, 2019, 25, 971-981.	0.2	14
13	A time-dependent phenomenological model for cell mechano-sensing. Biomechanics and Modeling in Mechanobiology, 2014, 13, 451-462.	1.4	13
14	Microfluidic model of monocyte extravasation reveals the role of hemodynamics and subendothelial matrix mechanics in regulating endothelial integrity. Biomicrofluidics, 2021, 15, 054102.	1.2	10
15	Computational mechano-chemo-biology: a tool for the design of tissue scaffolds. Biomanufacturing Reviews, 2016, 1, 1.	4.8	6
16	Matrix degradation regulates osteoblast protrusion dynamics and individual migration. Integrative Biology (United Kingdom), 2019, 11, 404-413.	0.6	6
17	A new 3D finite element-based approach for computing cell surface tractions assuming nonlinear conditions. PLoS ONE, 2021, 16, e0249018.	1.1	6
18	A web-based application for automated quantification of chemical gradients induced in microfluidic devices. Computers in Biology and Medicine, 2018, 95, 118-128.	3.9	3

#	Article	IF	Citations
19	A Workbench for Biomedical Applications Based on Image Analysis. Lecture Notes in Computational Vision and Biomechanics, 2018, , 544-547.	0.5	0