Núria Gavara

List of Publications by Year in descending order

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39 2,149 20 38 papers citations h-index g-index

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all docs docs citations times ranked citing authors

#	Article	IF	CITATIONS
1	Nonpolarized signaling reveals two distinct modes of 3D cell migration. Journal of Cell Biology, 2012, 197, 439-455.	2.3	325
2	Probing mechanical properties of living cells by atomic force microscopy with blunted pyramidal cantilever tips. Physical Review E, 2005, 72, 021914.	0.8	316
3	Determination of the elastic moduli of thin samples and adherent cells using conical atomic force microscope tips. Nature Nanotechnology, 2012, 7, 733-736.	15.6	246
4	A beginner's guide to atomic force microscopy probing for cell mechanics. Microscopy Research and Technique, 2017, 80, 75-84.	1.2	143
5	Relationship between cell stiffness and stress fiber amount, assessed by simultaneous atomic force microscopy and live-cell fluorescence imaging. Biomechanics and Modeling in Mechanobiology, 2016, 15, 511-523.	1.4	117
6	Rheology of Passive and Adhesion-Activated Neutrophils Probed by Atomic Force Microscopy. Biophysical Journal, 2006, 91, 3508-3518.	0.2	85
7	Actomyosin and vimentin cytoskeletal networks regulate nuclear shape, mechanics and chromatin organization. Scientific Reports, 2017, 7, 5219.	1.6	78
8	Mapping Cell-Matrix Stresses during Stretch Reveals Inelastic Reorganization of the Cytoskeleton. Biophysical Journal, 2008, 95, 464-471.	0.2	70
9	Extracellular fluid viscosity enhances liver cancer cell mechanosensing and migration. Biomaterials, 2018, 177, 113-124.	5.7	65
10	Combined strategies for optimal detection of the contact point in AFM force-indentation curves obtained on thin samples and adherent cells. Scientific Reports, 2016, 6, 21267.	1.6	60
11	Cytoskeletal changes in actin and microtubules underlie the developing surface mechanical properties of sensory and supporting cells in the mouse cochlea. Development (Cambridge), 2012, 139, 2187-2197.	1.2	54
12	The keratin network of intermediate filaments regulates keratinocyte rigidity sensing and nuclear mechanotransduction. Science Advances, 2021, 7, .	4.7	50
13	Lifeact-TagGFP2 alters F-actin organization, cellular morphology and biophysical behaviour. Scientific Reports, 2019, 9, 3241.	1.6	49
14	Noncontact microrheology at acoustic frequencies using frequency-modulated atomic force microscopy. Nature Methods, 2010, 7, 650-654.	9.0	48
15	Differential effects of LifeAct-GFP and actin-GFP on cell mechanics assessed using micropipette aspiration. Journal of Biomechanics, 2016, 49, 310-317.	0.9	45
16	Thrombin-induced contraction in alveolar epithelial cells probed by traction microscopy. Journal of Applied Physiology, 2006, 101, 512-520.	1.2	41
17	Nickel induces intracellular calcium mobilization and pathophysiological responses in human cultured airway epithelial cells. Chemico-Biological Interactions, 2010, 183, 25-33.	1.7	34
18	Collagen-Based Mechanical Anisotropy of the Tectorial Membrane: Implications for Inter-Row Coupling of Outer Hair Cell Bundles. PLoS ONE, 2009, 4, e4877.	1.1	33

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19	Vimentin Plays a Crucial Role in Fibroblast Ageing by Regulating Biophysical Properties and Cell Migration. Cells, 2019, 8, 1164.	1.8	33
20	Effect of stretch on structural integrity and micromechanics of human alveolar epithelial cell monolayers exposed to thrombin. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2006, 290, L1104-L1110.	1.3	27
21	Ezrin Phosphorylation at T567 Modulates Cell Migration, Mechanical Properties, and Cytoskeletal Organization. International Journal of Molecular Sciences, 2020, 21, 435.	1.8	24
22	Activation of Store-Operated Ca2+Channels in Trabecular Meshwork Cells., 2008, 49, 677.		18
23	Nuclear Mechanics and Stem Cell Differentiation. Stem Cell Reviews and Reports, 2015, 11, 804-812.	5.6	18
24	Auditory mechanics of the tectorial membrane and the cochlear spiral. Current Opinion in Otolaryngology and Head and Neck Surgery, 2011, 19, 382-387.	0.8	17
25	Baseline Stiffness Modulates the Non-Linear Response to Stretch of the Extracellular Matrix in Pulmonary Fibrosis. International Journal of Molecular Sciences, 2021, 22, 12928.	1.8	17
26	Thyroid hormone increases fibroblast growth factor receptor expression and disrupts cell mechanics in the developing organ of corti. BMC Developmental Biology, 2013, 13, 6.	2.1	16
27	Frequency-modulated atomic force microscopy localises viscoelastic remodelling in the ageing sheep aorta. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 64, 10-17.	1.5	16
28	Novel Decellularization Method for Tissue Slices. Frontiers in Bioengineering and Biotechnology, 2022, 10, 832178.	2.0	15
29	Cobalt ions stimulate a fibrotic response through matrix remodelling, fibroblast contraction and release of pro-fibrotic signals from macrophages. , 2018, 36, 142-155.		13
30	Fibroblast growth factor receptor 3 regulates microtubule formation and cell surface mechanical properties in the developing organ of Corti. Bioarchitecture, 2012, 2, 214-219.	1.5	11
31	Stiffening and Contraction Induced by Dexamethasone in Alveolar Epithelial Cells. Experimental Mechanics, 2009, 49, 47-55.	1.1	10
32	A Novel Putative Microtubule-Associated Protein Is Involved in Arbuscule Development during Arbuscular Mycorrhiza Formation. Plant and Cell Physiology, 2021, 62, 306-320.	1.5	9
33	Lung Extracellular Matrix Hydrogels Enhance Preservation of Type II Phenotype in Primary Alveolar Epithelial Cells. International Journal of Molecular Sciences, 2022, 23, 4888.	1.8	8
34	Image-Based Method to Quantify Decellularization of Tissue Sections. International Journal of Molecular Sciences, 2021, 22, 8399.	1.8	7
35	The Mechanical Interplay Between Differentiating Mesenchymal Stem Cells and Gelatin-Based Substrates Measured by Atomic Force Microscopy. Frontiers in Cell and Developmental Biology, 2021, 9, 697525.	1.8	6
36	New Bioengineering Breakthroughs and Enabling Tools in Regenerative Medicine. Current Stem Cell Reports, 2017, 3, 83-97.	0.7	5

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#	Article	IF	CITATIONS
37	Research Techniques Made Simple: Analysis of Skin Cell and Tissue Mechanics Using Atomic Force Microscopy. Journal of Investigative Dermatology, 2021, 141, 1867-1871.e1.	0.3	5
38	Withaferin-A Can Be Used to Modulate the Keratin Network of Intermediate Filaments in Human Epidermal Keratinocytes. International Journal of Molecular Sciences, 2020, 21, 4450.	1.8	4
39	Cytoskeletal changes in actin and microtubules underlie the developing surface mechanical properties of sensory and supporting cells in the mouse cochlea. Journal of Cell Science, 2012, 125, e1-e1.	1.2	1