Nils C Gauthier

List of Publications by Year
in descending order

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38 papers	3,712 citations	172457 29 h-index	345221 36 g-index
41 all docs	41 docs citations	41 times ranked	5325 citing authors

#	Article	IF	Citations
1	Mechanical feedback between membrane tension and dynamics. Trends in Cell Biology, 2012, 22, 527-535.	7.9	400
2	Clustering of Î± ₅ Î² ₁ integrins determines adhesion strength whereas Î± _v Î² ₃ and talin enable mechanotransduction. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16245-16250.	7.1	373
3	Temporary increase in plasma membrane tension coordinates the activation of exocytosis and contraction during cell spreading. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 14467-14472.	7.1	329
4	Integrin-dependent force transmission to the extracellular matrix by Î±-actinin triggers adhesion maturation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1361-70.	7.1	240
5	Cytoskeletal coherence requires myosin-IIA contractility. Journal of Cell Science, 2010, 123, 413-423.	2.0	179
6	Cell crawling mediates collective cell migration to close undamaged epithelial gaps. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10891-10896.	7.1	175
7	Disruption of Autophagy at the Maturation Step by the Carcinogen Lindane Is Associated with the Sustained Mitogen-Activated Protein Kinase/Extracellular Signalâ€“Regulated Kinase Activity. Cancer Research, 2006, 66, 6861-6870.	0.9	172
8	Plasma membrane tension orchestrates membrane trafficking, cytoskeletal remodeling, and biochemical signaling during phagocytosis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11875-11880.	7.1	164
9	Membrane tension: A challenging but universal physical parameter in cell biology. Seminars in Cell and Developmental Biology, 2017, 71, 30-41.	5.0	145
10	Membrane Tension Orchestrates Rear Retraction in Matrix-Directed Cell Migration. Developmental Cell, 2019, 51, 460-475.e10.	7.0	112
11	Plasma Membrane Area Increases with Spread Area by Exocytosis of a GPI-anchored Protein Compartment. Molecular Biology of the Cell, 2009, 20, 3261-3272.	2.1	106
12	Force generated by actomyosin contraction builds bridges between adhesive contacts. EMBO Journal, 2010, 29, 1055-1068.	7.8	102
13	Membrane tension controls adhesion positioning at the leading edge of cells. Journal of Cell Biology, 2017, 216, 2959-2977.	5.2	101
14	How cells respond to environmental cues â€“ insights from bio-functionalized substrates. Journal of Cell Science, 2017, 130, 51-61.	2.0	93
15	Early endosomes associated with dynamic F-actin structures are required for late trafficking of H. pylori VacA toxin. Journal of Cell Biology, 2007, 177, 343-354.	5.2	91
16	Physical principles of membrane remodelling during cell mechanoadaptation. Nature Communications, 2015, 6, 7292.	12.8	91
17	Mechanosensing at integrin-mediated cellâ€“matrix adhesions: from molecular to integrated mechanisms. Current Opinion in Cell Biology, 2018, 50, 20-26.	5.4	75
18	Protrusive waves guide 3D cell migration along nanofibers. Journal of Cell Biology, 2015, 211, 683-701.	5.2	73

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19	Î±-Actinin links extracellular matrix rigidity-sensing contractile units with periodic cell-edge retractions. Molecular Biology of the Cell, 2016, 27, 3471-3479.	2.1	68
20	Membrane-cytoskeletal crosstalk mediated by myosin-I regulates adhesion turnover during phagocytosis. Nature Communications, 2019, 10, 1249.	12.8	64
21	Gastric cell apoptosis and H. pylori: has the main function of VacA finally been identified?. Trends in Microbiology, 2003, 11, 410-413.	7.7	61
22	F-actin dynamics regulates mammalian organ growth and cell fate maintenance. Journal of Hepatology, 2019, 71, 130-142.	3.7	56
23	Mechanical confinement triggers glioma linear migration dependent on formin FHOD3. Molecular Biology of the Cell, 2016, 27, 1246-1261.	2.1	51
24	Bacillus sphaericus Binary Toxin Elicits Host Cell Autophagy as a Response to Intoxication. PLoS ONE, 2011, 6, e14682.	2.5	47
25	Glycosylphosphatidylinositol-anchored Proteins and Actin Cytoskeleton Modulate Chloride Transport by Channels Formed by the Helicobacter pylori Vacuolating Cytotoxin VacA in HeLa Cells*. Journal of Biological Chemistry, 2004, 279, 9481-9489.	3.4	41
26	One-dimensional cell motility patterns. Physical Review Research, 2020, 2, .	3.6	40
27	Squeezing in a Meal: Myosin Functions in Phagocytosis. Trends in Cell Biology, 2020, 30, 157-167.	7.9	39
28	Easy Fabrication of Thin Membranes with Through Holes. Application to Protein Patterning. PLoS ONE, 2012, 7, e44261.	2.5	38
29	Phagocytic â€˜teethâ€™ and myosin-II â€˜jawâ€™ power target constriction during phagocytosis. ELife, 2021, 10,	6.0	35
30	Myosin 1E localizes to actin polymerization sites in lamellipodia, affecting actin dynamics and adhesion formation. Biology Open, 2013, 2, 1288-1299.	1.2	33
31	The effects of nanofiber diameter and orientation on siRNA uptake and gene silencing. Biomaterials, 2015, 37, 94-106.	11.4	32
32	Fâ€actin waves, actin cortex disassembly and focal exocytosis driven by actinâ€phosphoinositide positive feedback. Cytoskeleton, 2016, 73, 180-196.	2.0	32
33	Complementary mesoscale dynamics of spectrin and acto-myosin shape membrane territories during mechanoresponse. Nature Communications, 2020, 11, 5108.	12.8	20
34	Adaptive mechanoproperties mediated by the formin FMN1 characterize glioblastoma fitness for invasion. Developmental Cell, 2021, 56, 2841-2855.e8.	7.0	12
35	Helicobacter pylori VacA toxin: a tool to study novel early endosomes. Trends in Microbiology, 2006, 14, 292-294.	7.7	9
36	Building the phagocytic cup on an actin scaffold. Current Opinion in Cell Biology, 2022, 77, 102112.	5.4	8

#	Article	IF	Citations
37	Protocol to assess human glioma propagating cell migration on linear micropatterns mimicking brain invasion tracks. STAR Protocols, 2022, 3, 101331.	1.2	2
38	Membrane Tension Orchestrates Rear Retraction in Matrix Directed Cell Migration. SSRN Electronic Journal, 0, , .	0.4	1