

# Nathan J Sniadecki

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/938087/publications.pdf>

Version: 2024-02-01

66  
papers

5,139  
citations

126708

33  
h-index

123241

61  
g-index

74  
all docs

74  
docs citations

74  
times ranked

7274  
citing authors

#	ARTICLE	IF	CITATIONS
1	Black dots: High-yield traction force microscopy reveals structural factors contributing to platelet forces. <i>Acta Biomaterialia</i> , 2023, 163, 302-311.	4.1	8
2	Magnetically-actuated microposts stimulate axon growth. <i>Biophysical Journal</i> , 2022, 121, 374-382.	0.2	7
3	Disc and Actin Associated Protein 1 influences attachment in the intestinal parasite <i>Giardia lamblia</i> . <i>PLoS Pathogens</i> , 2022, 18, e1010433.	2.1	4
4	A Change of Heart: Human Cardiac Tissue Engineering as a Platform for Drug Development. <i>Current Cardiology Reports</i> , 2022, 24, 473-486.	1.3	10
5	The <i>Giardia</i> ventrolateral flange is a lamellar membrane protrusion that supports attachment. <i>PLoS Pathogens</i> , 2022, 18, e1010496.	2.1	5
6	Engineered Heart Tissues for Contractile, Structural, and Transcriptional Assessment of Human Pluripotent Stem Cell-Derived Cardiomyocytes in a Three-Dimensional, Auxotonic Environment. <i>Methods in Molecular Biology</i> , 2022, , 87-97.	0.4	5
7	Black Dots: Microcontact Printed Reference-Free Traction Force Microscopy. <i>Biophysical Journal</i> , 2021, 120, 363a-364a.	0.2	0
8	SARS-CoV-2 Infects Human Pluripotent Stem Cell-Derived Cardiomyocytes, Impairing Electrical and Mechanical Function. <i>Stem Cell Reports</i> , 2021, 16, 478-492.	2.3	75
9	Engrafted Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes Undergo Clonal Expansion In Vivo. <i>Circulation</i> , 2021, 143, 1635-1638.	1.6	9
10	Tunable electroconductive decellularized extracellular matrix hydrogels for engineering human cardiac microphysiological systems. <i>Biomaterials</i> , 2021, 272, 120764.	5.7	60
11	Storage temperature determines platelet GPVI levels and function in mice and humans. <i>Blood Advances</i> , 2021, 5, 3839-3849.	2.5	16
12	Gain-of-function cardiomyopathic mutations in RBM20 rewire splicing regulation and re-distribute ribonucleoprotein granules within processing bodies. <i>Nature Communications</i> , 2021, 12, 6324.	5.8	23
13	Engineering Heart Morphogenesis. <i>Trends in Biotechnology</i> , 2020, 38, 835-845.	4.9	10
14	A Rainbow Reporter Tracks Single Cells and Reveals Heterogeneous Cellular Dynamics among Pluripotent Stem Cells and Their Differentiated Derivatives. <i>Stem Cell Reports</i> , 2020, 15, 226-241.	2.3	16
15	(De)form and Function: Measuring Cellular Forces with Deformable Materials and Deformable Structures. <i>Advanced Healthcare Materials</i> , 2020, 9, 1901454.	3.9	9
16	Platelet Storage Temperature Determines Recovery of GPVI-Function <i>In Vivo</i> . <i>Blood</i> , 2020, 136, 39-39.	0.6	0
17	Chromatin compartment dynamics in a haploinsufficient model of cardiac laminopathy. <i>Journal of Cell Biology</i> , 2019, 218, 2919-2944.	2.3	46
18	TFPa/HADHA is required for fatty acid beta-oxidation and cardiolipin re-modeling in human cardiomyocytes. <i>Nature Communications</i> , 2019, 10, 4671.	5.8	77

#	ARTICLE	IF	CITATIONS
19	Cronos Titin Is Expressed in Human Cardiomyocytes and Necessary for Normal Sarcomere Function. <i>Circulation</i> , 2019, 140, 1647-1660.	1.6	50
20	Fatty Acids Enhance the Maturation of Cardiomyocytes Derived from Human Pluripotent Stem Cells. <i>Stem Cell Reports</i> , 2019, 13, 657-668.	2.3	187
21	Hyaluronan-CD44 interactions mediate contractility and migration in periodontal ligament cells. <i>Cell Adhesion and Migration</i> , 2019, 13, 139-151.	1.1	18
22	The consequence of substrates of large-scale rigidity on actin network tension in adherent cells. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2019, 22, 1073-1082.	0.9	3
23	Contractile forces in platelet aggregates under microfluidic shear gradients reflect platelet inhibition and bleeding risk. <i>Nature Communications</i> , 2019, 10, 1204.	5.8	69
24	Substrate Stiffness, Cell Anisotropy, and Cell-Cell Contact Contribute to Enhanced Structural and Calcium Handling Properties of Human Embryonic Stem Cell-Derived Cardiomyocytes. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 3876-3888.	2.6	26
25	LAMP-2B regulates human cardiomyocyte function by mediating autophagosome-lysosome fusion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 556-565.	3.3	78
26	Afterload promotes maturation of human induced pluripotent stem cell derived cardiomyocytes in engineered heart tissues. <i>Journal of Molecular and Cellular Cardiology</i> , 2018, 118, 147-158.	0.9	127
27	Cell Mechanics of Craniosynostosis. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 2733-2743.	2.6	24
28	The desmoplakin-intermediate filament linkage regulates cell mechanics. <i>Molecular Biology of the Cell</i> , 2017, 28, 3156-3164.	0.9	70
29	A microfluidic approach for hemoglobin detection in whole blood. <i>AIP Advances</i> , 2017, 7, .	0.6	31
30	Activation of the IGF1 Pathway Mediates Changes in Cellular Contractility and Motility in Single-Suture Craniosynostosis. <i>Journal of Cell Science</i> , 2016, 129, 483-91.	1.2	16
31	Nonmuscle Myosin IIA Regulates Platelet Contractile Forces Through Rho Kinase and Myosin Light-Chain Kinase. <i>Journal of Biomechanical Engineering</i> , 2016, 138, .	0.6	27
32	Spatial and temporal coordination of traction forces in one-dimensional cell migration. <i>Cell Adhesion and Migration</i> , 2016, 10, 529-539.	1.1	6
33	Real-Time Force and Frequency Analysis of Engineered Human Heart Tissue Derived from Induced Pluripotent Stem Cells Using Magnetic Sensing. <i>Tissue Engineering - Part C: Methods</i> , 2016, 22, 932-940.	1.1	47
34	Glycoprotein Ib-IX-V Complex Transmits Cytoskeletal Forces That Enhance Platelet Adhesion. <i>Biophysical Journal</i> , 2016, 111, 601-608.	0.2	56
35	In silico CDM model sheds light on force transmission in cell from focal adhesions to nucleus. <i>Journal of Biomechanics</i> , 2016, 49, 2625-2634.	0.9	10
36	Micropost arrays for measuring stem cell-derived cardiomyocyte contractility. <i>Methods</i> , 2016, 94, 43-50.	1.9	76

#	ARTICLE	IF	CITATIONS
37	A Magnetic Post Approach for Measuring the Viscoelasticity of Biomaterials. Journal of Microelectromechanical Systems, 2016, 25, 153-159.	1.7	1
38	Let-7 family of microRNA is required for maturation and adult-like metabolism in stem cell-derived cardiomyocytes. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E2785-94.	3.3	223
39	Micropatterning on Micropost Arrays. Methods in Cell Biology, 2014, 121, 61-73.	0.5	9
40	Measuring the Contractile Forces of Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes With Arrays of Microposts. Journal of Biomechanical Engineering, 2014, 136, 051005.	0.6	136
41	Tri-iodo-L-thyronine promotes the maturation of human cardiomyocytes-derived from induced pluripotent stem cells. Journal of Molecular and Cellular Cardiology, 2014, 72, 296-304.	0.9	357
42	Simple replica micromolding of biocompatible styrenic elastomers. Lab on A Chip, 2013, 13, 2773.	3.1	54
43	Review on Cell Mechanics: Experimental and Modeling Approaches. Applied Mechanics Reviews, 2013, 65, .	4.5	164
44	Clot-On-A-Chip: A Microfluidic Device To Study Platelet Aggregation and Contractility Under Shear. Blood, 2013, 122, 2363-2363.	0.6	7
45	Reconstitution Of The Microvascular Thrombopoietic Niche Reveals Cross-Talk Between Megakaryocytes and The Microvasculature. Blood, 2013, 122, 2456-2456.	0.6	0
46	Platelet Cytoskeletal Force Transmission Through The GPIb-IX-V Complex. Blood, 2013, 122, 197-197.	0.6	0
47	Flow mechanotransduction regulates traction forces, intercellular forces, and adherens junctions. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 302, H2220-H2229.	1.5	69
48	Decoupling Substrate Stiffness, Spread Area, and Micropost Density: A Close Spatial Relationship between Traction Forces and Focal Adhesions. Biophysical Journal, 2012, 103, 640-648.	0.2	176
49	Simulations of the contractile cycle in cell migration using a bio-chemicalâ€mechanical model. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 459-468.	0.9	20
50	Substrate Stiffness Increases Twitch Power of Neonatal Cardiomyocytes in Correlation with Changes in Myofibril Structure and Intracellular Calcium. Biophysical Journal, 2011, 101, 2455-2464.	0.2	122
51	Thermal fracture of oxidized polydimethylsiloxane during soft lithography of nanopost arrays. Journal of Micromechanics and Microengineering, 2011, 21, 054013.	1.5	34
52	Effect of Silanization Film Thickness in Soft Lithography of Nanoscale Features. Journal of Nanotechnology in Engineering and Medicine, 2011, 2, .	0.8	14
53	Mechanobiology of Platelets: Techniques to Study the Role of Fluid Flow and Platelet Retraction Forces at the Micro- and Nano-Scale. International Journal of Molecular Sciences, 2011, 12, 9009-9030.	1.8	28
54	Mechanical Forces in Endothelial Cells during Firm Adhesion and Early Transmigration of Human Monocytes. Cellular and Molecular Bioengineering, 2010, 3, 50-59.	1.0	45

#	ARTICLE	IF	CITATIONS
55	Decoupling diffusional from dimensional control of signaling in 3D culture reveals a role for myosin in tubulogenesis. <i>Journal of Cell Science</i> , 2010, 123, 2877-2883.	1.2	45
56	Mechanical tugging force regulates the size of cell-cell junctions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 9944-9949.	3.3	633
57	Platelet retraction force measurements using flexible post force sensors. <i>Lab on A Chip</i> , 2010, 10, 991.	3.1	82
58	Magnetic microposts for mechanical stimulation of biological cells: Fabrication, characterization, and analysis. <i>Review of Scientific Instruments</i> , 2008, 79, 044302.	0.6	61
59	Magnetic microposts as an approach to apply forces to living cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 14553-14558.	3.3	314
60	Microfabricated Silicone Elastomeric Post Arrays for Measuring Traction Forces of Adherent Cells. <i>Methods in Cell Biology</i> , 2007, 83, 313-328.	0.5	87
61	Engineered Microenvironments to Investigate Cellular Behavior. , 2006, 2006, 2362-5.		2
62	Nanotechnology for Cell-Substrate Interactions. <i>Annals of Biomedical Engineering</i> , 2006, 34, 59-74.	1.3	296
63	Engineered Microenvironments to Investigate Cellular Behavior. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2006, , .	0.5	0
64	Emergent patterns of growth controlled by multicellular form and mechanics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 11594-11599.	3.3	760
65	Shear force at the cell-matrix interface: enhanced analysis for microfabricated post array detectors. <i>Mechanics and Chemistry of Biosystems</i> , 2005, 2, 1-16.	0.3	37
66	Induced Pressure Pumping in Polymer Microchannels via Field-Effect Flow Control. <i>Analytical Chemistry</i> , 2004, 76, 1942-1947.	3.2	41