

# M Shane Hutson

## List of Publications by Year in descending order

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Version: 2024-02-01

38  
papers

1,735  
citations

361045

20  
h-index

344852

36  
g-index

40  
all docs

40  
docs citations

40  
times ranked

1744  
citing authors

#	ARTICLE	IF	CITATIONS
1	Forces for Morphogenesis Investigated with Laser Microsurgery and Quantitative Modeling. <i>Science</i> , 2003, 300, 145-149.	6.0	469
2	Video force microscopy reveals the mechanics of ventral furrow invagination in <i>Drosophila</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 22111-22116.	3.3	155
3	Probing embryonic tissue mechanics with laser hole drilling. <i>Physical Biology</i> , 2009, 6, 036004.	0.8	124
4	CellFIT: A Cellular Force-Inference Toolkit Using Curvilinear Cell Boundaries. <i>PLoS ONE</i> , 2014, 9, e99116.	1.1	94
5	Combining Laser Microsurgery and Finite Element Modeling to Assess Cell-Level Epithelial Mechanics. <i>Biophysical Journal</i> , 2009, 97, 3075-3085.	0.2	80
6	Plasma and Cavitation Dynamics during Pulsed Laser Microsurgery in Vivo. <i>Physical Review Letters</i> , 2007, 99, 158104.	2.9	74
7	Enabling user-guided segmentation and tracking of surface-labeled cells in time-lapse image sets of living tissues. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2012, 81A, 409-418.	1.1	60
8	Chemical-PDMS binding kinetics and implications for bioavailability in microfluidic devices. <i>Lab on A Chip</i> , 2019, 19, 864-874.	3.1	57
9	Computational Model of Secondary Palate Fusion and Disruption. <i>Chemical Research in Toxicology</i> , 2017, 30, 965-979.	1.7	55
10	Multiple Mechanisms Drive Calcium Signal Dynamics around Laser-Induced Epithelial Wounds. <i>Biophysical Journal</i> , 2017, 113, 1623-1635.	0.2	47
11	DRhoGEF2 Regulates Cellular Tension and Cell Pulsations in the Amnioserosa during <i>Drosophila</i> Dorsal Closure. <i>PLoS ONE</i> , 2011, 6, e23964.	1.1	44
12	Thermal diffusion and chemical kinetics in laminar biomaterial due to heating by a free-electron laser. <i>Physical Review E</i> , 2002, 65, 061906.	0.8	36
13	Cell Sorting in Three Dimensions: Topology, Fluctuations, and Fluidlike Instabilities. <i>Physical Review Letters</i> , 2008, 101, 148105.	2.9	36
14	Computational modeling and simulation of genital tubercle development. <i>Reproductive Toxicology</i> , 2016, 64, 151-161.	1.3	34
15	Apical Oscillations in Amnioserosa Cells: Basolateral Coupling and Mechanical Autonomy. <i>Biophysical Journal</i> , 2013, 105, 255-265.	0.2	32
16	Raman-shifted alexandrite laser for soft tissue ablation in the 6- to 7- $\mu\text{m}$ wavelength range. <i>Biomedical Optics Express</i> , 2011, 2, 1275.	1.5	30
17	Wavelength-Dependent Conformational Changes in Collagen after Mid-Infrared Laser Ablation of Cornea. <i>Biophysical Journal</i> , 2008, 94, 1359-1366.	0.2	26
18	Enhancer of Rudimentary Homolog Affects the Replication Stress Response through Regulation of RNA Processing. <i>Molecular and Cellular Biology</i> , 2015, 35, 2979-2990.	1.1	26

#	ARTICLE	IF	CITATIONS
19	Cellular mechanics of germ band retraction in <i>Drosophila</i> . <i>Developmental Biology</i> , 2013, 384, 205-213.	0.9	23
20	A Microfluidic-Enabled Mechanical Microcompressor for the Immobilization of Live Single- and Multi-Cellular Specimens. <i>Microscopy and Microanalysis</i> , 2014, 20, 141-151.	0.2	23
21	Proteolytic activation of Growth-blocking peptides triggers calcium responses through the GPCR Mthl10 during epithelial wound detection. <i>Developmental Cell</i> , 2021, 56, 2160-2175.e5.	3.1	23
22	Interplay of wavelength, fluence and spot-size in free-electron laser ablation of cornea. <i>Optics Express</i> , 2009, 17, 9840.	1.7	20
23	Holographic UV laser microsurgery. <i>Biomedical Optics Express</i> , 2011, 2, 2590.	1.5	20
24	Amnioserosa development and function in <i>Drosophila</i> embryogenesis: Critical mechanical roles for an extraembryonic tissue. <i>Developmental Dynamics</i> , 2016, 245, 558-568.	0.8	20
25	Mechanical aspects of developmental biology: perspectives On Growth and Form in the (post)-genomic age. <i>Physical Biology</i> , 2008, 5, 015001.	0.8	19
26	Wavelength-Dependent Collagen Fragmentation during Mid-IR Laser Ablation. <i>Biophysical Journal</i> , 2006, 91, 1424-1432.	0.2	18
27	Practical aspects of the cellular force inference toolkit (CellFIT). <i>Methods in Cell Biology</i> , 2015, 125, 331-351.	0.5	15
28	Comparison of OPO and Mark-III FEL for tissue ablation at 6.45 $\mu\text{m}$ . , 2002, 4633, 194.		13
29	Advantage of the Mark-III FEL for biophysical research and biomedical applications. <i>Journal of Synchrotron Radiation</i> , 2003, 10, 354-357.	1.0	13
30	Modeling cell elongation during germ band retraction: cell autonomy versus applied anisotropic stress. <i>New Journal of Physics</i> , 2014, 16, 055003.	1.2	12
31	Pathway to a phenocopy: Heat stress effects in early embryogenesis. <i>Developmental Dynamics</i> , 2016, 245, 402-413.	0.8	7
32	Zones of cellular damage around pulsed-laser wounds. <i>PLoS ONE</i> , 2021, 16, e0253032.	1.1	7
33	Efficacy and predictability of soft tissue ablation using a prototype Raman-shifted alexandrite laser. <i>Journal of Biomedical Optics</i> , 2015, 20, 105004.	1.4	5
34	Elongated Cells Drive Morphogenesis in a Surface-Wrapped Finite-Element Model of Germband Retraction. <i>Biophysical Journal</i> , 2019, 117, 157-169.	0.2	5
35	The Attenuation Distribution Across the Long Axis of Breast Cancer Liver Metastases at CT: A Quantitative Biomarker for Predicting Overall Survival. <i>American Journal of Roentgenology</i> , 2018, 210, W1-W7.	1.0	4
36	Optic nerve sheath fenestration using a Raman-shifted alexandrite laser. <i>Lasers in Surgery and Medicine</i> , 2016, 48, 270-280.	1.1	3

#	ARTICLE	IF	CITATIONS
37	Mounting <i>Drosophila</i> pupae for laser ablation and live imaging of the dorsal thorax. STAR Protocols, 2022, 3, 101396.	0.5	3
38	Cellular diversity heals. Nature Physics, 2018, 14, 639-641.	6.5	0