Larry A Taber

List of Publications by Year
in descending order

78 papers	4,113 citations	101543 36 h-index	118850 62 g-index
83 all docs	83 docs citations	83 times ranked	2957 citing authors

#	Article	IF	Citations
1	A Chemomechanical Model for Regulation of Contractility in the Embryonic Brain Tube. Journal of Elasticity, 2021, 145, 77-98.	1.9	1
2	Continuum Modeling in Mechanobiology. , 2020, , .		8
3	Morphogenesis. , 2020, , 401-517.		0
4	Problems in Soft Tissue Biomechanics. , 2020, , 155-208.		1
5	Molecular and mechanical signals determine morphogenesis of the cerebral hemispheres in the chicken embryo. Development (Cambridge), 2019, 146, .	2.5	17
6	Physical Mechanisms Create and Loop the Embryonic Heart. FASEB Journal, 2019, 33, 16.2.	0.5	0
7	Dynamic patterns of cortical expansion during folding of the preterm human brain. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3156-3161.	7.1	94
8	A new wrinkle on the brain. Nature Physics, 2018, 14, 435-436.	16.7	0
9	How mechanical forces shape the developing eye. Progress in Biophysics and Molecular Biology, 2018, 137, 25-36.	2.9	25
10	Reduced embryonic blood flow impacts extracellular matrix deposition in the maturing aorta. Developmental Dynamics, 2018, 247, 914-923.	1.8	12
11	Apoptosis generates mechanical forces that close the lens vesicle in the chick embryo. Physical Biology, 2018, 15, 025001.	1.8	6
12	A new hypothesis for foregut and heart tube formation based on differential growth and actomyosin contraction. Development (Cambridge), 2017, 144, 2381-2391.	2.5	31
13	Contraction and stress-dependent growth shape the forebrain of the early chicken embryo. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 65, 383-397.	3.1	21
14	How the embryonic chick brain twists. Journal of the Royal Society Interface, 2016, 13, 20160395.	3.4	8
15	Editorial. Biomechanics and Modeling in Mechanobiology, 2016, 15, 759-760.	2.8	1
16	Tissue growth constrained by extracellular matrix drives invagination during optic cup morphogenesis. Biomechanics and Modeling in Mechanobiology, 2016, 15, 1405-1421.	2.8	43
17	Why is cytoskeletal contraction required for cardiac fusion before but not after looping begins?. Physical Biology, 2015, 12, 016012.	1.8	12
18	Probing Regional Mechanical Properties of Embryonic Tissue Using Microindentation and Optical Coherence Tomography. Methods in Molecular Biology, 2015, 1189, 3-16.	0.9	12

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19	Bending and twisting the embryonic heart: a computational model for c-looping based on realistic geometry. Frontiers in Physiology, 2014, 5, 297.	2.8	35
20	Bending of the Looping Heart: Differential Growth Revisited. Journal of Biomechanical Engineering, 2014, 136, .	1.3	39
21	Mechanical effects of the surface ectoderm on optic vesicle morphogenesis in the chick embryo. Journal of Biomechanics, 2014, 47, 3837-3846.	2.1	28
22	Morphomechanics: transforming tubes into organs. Current Opinion in Genetics and Development, 2014, 27, 7-13.	3.3	40
23	Simple and accurate methods for quantifying deformation, disruption, and development in biological tissues. Journal of the Royal Society Interface, 2014, 11, 20140685.	3.4	31
24	Shape Is Not Enough to Test Hypotheses for Morphogenesis. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 325-331.	0.5	0
25	Computational and experimental study of the mechanics of embryonic wound healing. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 28, 125-146.	3.1	16
26	Special issue on mechanics of development. Biomechanics and Modeling in Mechanobiology, 2013, 12, 3-4.	2.8	0
27	Spatial and Temporal Variations of Cortical Growth during Gyrogenesis in the Developing Ferret Brain. Cerebral Cortex, 2013, 23, 488-498.	2.9	36
28	Mechanisms of Brain Morphogenesis. , 2013, , 337-349.		2
29	Damped and persistent oscillations in a simple model of cell crawling. Journal of the Royal Society Interface, 2012, 9, 1241-1253.	3.4	8
30	Not just inductive: a crucial mechanical role for the endoderm during heart tube assembly. Development (Cambridge), 2012, 139, 1680-1690.	2.5	79
31	A potential role for differential contractility in early brain development and evolution. Biomechanics and Modeling in Mechanobiology, 2012, 11, 1251-1262.	2.8	20
32	On integrating experimental and theoretical models to determine physical mechanisms of morphogenesis. BioSystems, 2012, 109, 412-419.	2.0	8
33	Regional differences in actomyosin contraction shape the primary vesicles in the embryonic chicken brain. Physical Biology, 2012, 9, 066007.	1.8	27
34	Computational models for mechanics of morphogenesis. Birth Defects Research Part C: Embryo Today Reviews, 2012, 96, 132-152.	3.6	81
35	A poroelastic model for cell crawling including mechanical coupling between cytoskeletal contraction and actin polymerization. Journal of Mechanics of Materials and Structures, 2011, 6, 569-589.	0.6	27
36	Tracking Morphogenetic Tissue Deformations in the Early Chick Embryo. Journal of Visualized Experiments, 2011, , e3129.	0.3	9

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37	Mechanical Stress as a Regulator of Cytoskeletal Contractility and Nuclear Shape in Embryonic Epithelia. Annals of Biomedical Engineering, 2011, 39, 443-454.	2.5	26
38	Mechanics of head fold formation: investigating tissueâ€level forces during early development. FASEB Journal, 2011, 25, 301.2.	0.5	0
39	The role of mechanical forces in the torsional component of cardiac looping. Annals of the New York Academy of Sciences, 2010, 1188, 103-110.	3.8	33
40	Mechanics of head fold formation: investigating tissue-level forces during early development. Development (Cambridge), 2010, 137, 3801-3811.	2.5	86
41	Opening Angles and Material Properties of the Early Embryonic Chick Brain. Journal of Biomechanical Engineering, 2010, 132, 011005.	1.3	36
42	A New Method to Measure Cortical Growth in the Developing Brain. Journal of Biomechanical Engineering, 2010, 132, 101004.	1.3	20
43	Axons Pull on the Brain, But Tension Does Not Drive Cortical Folding. Journal of Biomechanical Engineering, 2010, 132, 071013.	1.3	216
44	Automatic Generation of User Material Subroutines for Biomechanical Growth Analysis. Journal of Biomechanical Engineering, 2010, 132, 104505.	1.3	17
45	Residual stress in the adult mouse brain. Biomechanics and Modeling in Mechanobiology, 2009, 8, 253-262.	2.8	76
46	Towards a unified theory for morphomechanics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 3555-3583.	3.4	86
47	Computational modeling of morphogenesis regulated by mechanical feedback. Biomechanics and Modeling in Mechanobiology, 2008, 7, 77-91.	2.8	62
48	Growth and remodeling in a thick-walled artery model: effects of spatial variations in wall constituents. Biomechanics and Modeling in Mechanobiology, 2008, 7, 245-262.	2.8	137
49	Theoretical study of Beloussovâ€™s hyper-restoration hypothesis for mechanical regulation of morphogenesis. Biomechanics and Modeling in Mechanobiology, 2008, 7, 427-441.	2.8	73
50	On Modeling Morphogenesis of the Looping Heart Following Mechanical Perturbations. Journal of Biomechanical Engineering, 2008, 130, 061018.	1.3	41
51	A New Method for Measuring Deformation of Folding Surfaces During Morphogenesis. Journal of Biomechanical Engineering, 2008, 130, 061010.	1.3	28
52	Computational study of growth and remodelling in the aortic arch. Computer Methods in Biomechanics and Biomedical Engineering, 2008, 11, 525-538.	1.6	43
53	Computational Model for the Transition From Peristaltic to Pulsatile Flow in the Embryonic Heart Tube. Journal of Biomechanical Engineering, 2007, 129, 441-449.	1.3	41
54	Surface Strains in the Looping Embryonic Chick Heart Measured Using Optical Coherence Tomography. , 2007, , .		0

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55	Optical Coherence Tomography as a Tool for Measuring Morphogenetic Deformation of the Looping Heart. Anatomical Record, 2007, 290, 1057-1068.	1.4	49
56	Computational Model for Early Cardiac Looping. Annals of Biomedical Engineering, 2006, 34, 1655-69.	2.5	33
57	Biophysical mechanisms of cardiac looping. International Journal of Developmental Biology, 2006, 50, 323-332.	0.6	102
58	Myosin-based contraction is not necessary for cardiac c-looping in the chick embryo. Anatomy and Embryology, 2006, 211, 443-454.	1.5	24
59	Morphogenetic adaptation of the looping embryonic heart to altered mechanical loads. Developmental Dynamics, 2006, 235, 1822-1829.	1.8	50
60	Role of actin polymerization in bending of the early heart tube. Developmental Dynamics, 2005, 233, 1272-1286.	1.8	66
61	Material Properties and Residual Stress in the Stage 12 Chick Heart During Cardiac Looping. Journal of Biomechanical Engineering, 2004, 126, 823-830.	1.3	76
62	On the Effects of Residual Stress in Microindentation Tests of Soft Tissue Structures. Journal of Biomechanical Engineering, 2004, 126, 276-283.	1.3	61
63	The role of mechanical forces in dextral rotation during cardiac looping in the chick embryo. Developmental Biology, 2004, 272, 339-350.	2.0	125
64	Mechanical Asymmetry in the Embryonic Chick Heart During Looping. Annals of Biomedical Engineering, 2003, 31, 1327-1336.	2.5	75
65	Regional epicardial strain in the embryonic chick heart during the early looping stages. Journal of Biomechanics, 2003, 36, 1135-1141.	2.1	21
66	Cardiac looping in experimental conditions: Effects of extraembryonic forces. Developmental Dynamics, 2002, 224, 413-421.	1.8	91
67	Biomechanics of Cardiovascular Development. Annual Review of Biomedical Engineering, 2001, 3, 1-25.	12.3	113
68	Theoretical model for myocardial trabeculation. Developmental Dynamics, 2001, 220, 226-237.	1.8	10
69	Stress-Modulated Growth, Residual Stress, and Vascular Heterogeneity. Journal of Biomechanical Engineering, 2001, 123, 528-535.	1.3	258
70	Pattern Formation in a Nonlinear Membrane Model for Epithelial Morphogenesis. Acta Biotheoretica, 2000, 48, 47-63.	1.5	14
71	Modeling Heart Development. Journal of Elasticity, 2000, 61, 165-197.	1.9	72
72	Mechanical aspects of cardiac development. Progress in Biophysics and Molecular Biology, 1998, 69, 237-255.	2.9	76

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73	Theoretical Study of Stress-Modulated Growth in the Aorta. Journal of Theoretical Biology, 1996, 180, 343-357.	1.7	143
74	Mechanics of cardiac looping. Developmental Dynamics, 1995, 203, 42-50.	1.8	73
75	Biomechanics of Growth, Remodeling, and Morphogenesis. Applied Mechanics Reviews, 1995, 48, 487-545.	10.1	534
76	A Nonliner Poroelastic Model for the Trabecular Embryonic Heart. Journal of Biomechanical Engineering, 1994, 116, 213-223.	1.3	46
77	A Theory for Transverse Deflection of Poroelastic Plates. Journal of Applied Mechanics, Transactions ASME, 1992, 59, 628-634.	2.2	52
78	Large-Strain Behavior of Unsymmetric Laminates. Journal of Applied Mechanics, Transactions ASME, 1988, 55, 738-740.	2.2	1