

# Patrick W Alford

## List of Publications by Year in descending order

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Version: 2024-02-01

39  
papers

2,342  
citations

331538

21  
h-index

315616

38  
g-index

40  
all docs

40  
docs citations

40  
times ranked

3199  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Characterizing Tissue Remodeling and Mechanical Heterogeneity in Cerebral Aneurysms. Journal of Vascular Research, 2022, 59, 34-42.  | 0.6 | 4         |
| 2  | Cellular Microbiaxial Stretching Assay for Measurement and Characterization of the Anisotropic Mechanical Properties of Micropatterned Cells. Current Protocols, 2022, 2, e370.  | 1.3 | 1         |
| 3  | Architecture-Dependent Mechano-Adaptation in Single Vascular Smooth Muscle Cells. Journal of Biomechanical Engineering, 2021, 143, .   | 0.6 | 7         |
| 4  | Anisotropic Mechanics of Vascular Smooth Muscle Cells Exposed to Dynamic Loads. Journal of Biomechanical Engineering, 2021, 143, .   | 0.6 | 1         |
| 5  | Orientation of neurites influences severity of mechanically induced tau pathology. Biophysical Journal, 2021, 120, 3272-3282.  | 0.2 | 8         |
| 6  | Large-deformation strain energy density function for vascular smooth muscle cells. Journal of Biomechanics, 2020, 111, 110005.   | 0.9 | 10        |
| 7  | Mechanical injuries of neurons induce tau mislocalization to dendritic spines and tau-dependent synaptic dysfunction. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29069-29079. | 3.3 | 30        |
| 8  | Intrinsic Cell Stress is Independent of Organization in Engineered Cell Sheets. Cardiovascular Engineering and Technology, 2018, 9, 181-192.   | 0.7 | 10        |
| 9  | Architecture-Dependent Anisotropic Hysteresis in Smooth Muscle Cells. Biophysical Journal, 2018, 115, 2044-2054.   | 0.2 | 14        |
| 10 | Bimodal sensing of guidance cues in mechanically distinct microenvironments. Nature Communications, 2018, 9, 4891.   | 5.8 | 52        |
| 11 | Investigation of human iPSC-derived cardiac myocyte functional maturation by single cell traction force microscopy. PLoS ONE, 2018, 13, e0194909.  | 1.1 | 41        |
| 12 | Failure of the Porcine Ascending Aorta: Multidirectional Experiments and a Unifying Microstructural Model. Journal of Biomechanical Engineering, 2017, 139, .  | 0.6 | 43        |
| 13 | Anisotropic forces from spatially constrained focal adhesions mediate contact guidance directed cell migration. Nature Communications, 2017, 8, 14923.   | 5.8 | 221       |
| 14 | Cellular Microbiaxial Stretching to Measure a Single-Cell Strain Energy Density Function. Journal of Biomechanical Engineering, 2017, 139, .   | 0.6 | 17        |
| 15 | Empirically Determined Vascular Smooth Muscle Cell Mechano-Adaptation Law. Journal of Biomechanical Engineering, 2017, 139, .  | 0.6 | 18        |
| 16 | Amyloid Beta Influences Vascular Smooth Muscle Contractility and Mechanoadaptation. Journal of Biomechanical Engineering, 2016, 138, .   | 0.6 | 16        |
| 17 | Microfluidic Genipin Deposition Technique for Extended Culture of Micropatterned Vascular Muscular Thin Films. Journal of Visualized Experiments, 2015, , e52971.  | 0.2 | 2         |
| 18 | Ice Hockey Summit II: Zero Tolerance for Head Hits and Fighting. PM and R, 2015, 7, 283-295.   | 0.9 | 6         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | Cytoskeletal prestress regulates nuclear shape and stiffness in cardiac myocytes. <i>Experimental Biology and Medicine</i> , 2015, 240, 1543-1554.  | 1.1 | 33        |
| 20 | Ice Hockey Summit II. <i>Clinical Journal of Sport Medicine</i> , 2015, 25, 78-87.  | 0.9 | 8         |
| 21 | Vascular smooth muscle cell functional contractility depends on extracellular mechanical properties. <i>Journal of Biomechanics</i> , 2015, 48, 3044-3051.  | 0.9 | 66        |
| 22 | Elasticity-Based Targeted Growth Models of Morphogenesis. <i>Methods in Molecular Biology</i> , 2015, 1189, 339-350.  | 0.4 | 0         |
| 23 | Long-term vascular contractility assay using genipin-modified muscular thin films. <i>Biofabrication</i> , 2014, 6, 045005.   | 3.7 | 18        |
| 24 | Smooth Muscle Phenotype Switching in Blast Traumatic Brain Injury-Induced Cerebral Vasospasm. <i>Translational Stroke Research</i> , 2014, 5, 385-393.  | 2.3 | 26        |
| 25 | Prefailure and Failure Mechanics of the Porcine Ascending Thoracic Aorta: Experiments and a Multiscale Model. <i>Journal of Biomechanical Engineering</i> , 2014, 136, 021028.                                | 0.6 | 45        |
| 26 | Smooth muscle architecture within cell-dense vascular tissues influences functional contractility. <i>Integrative Biology (United Kingdom)</i> , 2014, 6, 1201-1210.  | 0.6 | 18        |
| 27 | The contractile strength of vascular smooth muscle myocytes is shape dependent. <i>Integrative Biology (United Kingdom)</i> , 2014, 6, 152-163.   | 0.6 | 34        |
| 28 | High-Throughput Microtissue Contractility Assay for In Vitro Analysis of Vascular Mechanics. , 2013, , .  |     | 0         |
| 29 | Controlling the contractile strength of engineered cardiac muscle by hierarchal tissue architecture. <i>Biomaterials</i> , 2012, 33, 5732-5741.   | 5.7 | 195       |
| 30 | Vascular smooth muscle contractility depends on cell shape. <i>Integrative Biology (United Kingdom)</i> , 2011, 3, 1063-1070.   | 0.6 | 110       |
| 31 | Ensembles of engineered cardiac tissues for physiological and pharmacological study: Heart on a chip. <i>Lab on A Chip</i> , 2011, 11, 4165.  | 3.1 | 452       |
| 32 | Cyclic strain induces dual-mode endothelial-mesenchymal transformation of the cardiac valve. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 19943-19948. | 3.3 | 145       |
| 33 | Blast-induced phenotypic switching in cerebral vasospasm. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 12705-12710.                                    | 3.3 | 115       |
| 34 | A Possible Role for Integrin Signaling in Diffuse Axonal Injury. <i>PLoS ONE</i> , 2011, 6, e22899.   | 1.1 | 97        |
| 35 | Biohybrid thin films for measuring contractility in engineered cardiovascular muscle. <i>Biomaterials</i> , 2010, 31, 3613-3621.  | 5.7 | 144       |
| 36 | Growth and remodeling in a thick-walled artery model: effects of spatial variations in wall constituents. <i>Biomechanics and Modeling in Mechanobiology</i> , 2008, 7, 245-262.                              | 1.4 | 137       |

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|----|---|-----|-----------|
| 37 | Computational study of growth and remodelling in the aortic arch. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2008, 11, 525-538. | 0.9 | 43        |
| 38 | The role of mechanical forces in dextral rotation during cardiac looping in the chick embryo. <i>Developmental Biology</i> , 2004, 272, 339-350.          | 0.9 | 125       |
| 39 | Regional epicardial strain in the embryonic chick heart during the early looping stages. <i>Journal of Biomechanics</i> , 2003, 36, 1135-1141.            | 0.9 | 21        |