

Tim M Mcgloughlin

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5569588/publications.pdf>

Version: 2024-02-01

118
papers

2,771
citations

136885

32
h-index

197736

49
g-index

119
all docs

119
docs citations

119
times ranked

2706
citing authors

#	ARTICLE	IF	CITATIONS
1	Fibrin: A Natural Biodegradable Scaffold in Vascular Tissue Engineering. <i>Cells Tissues Organs</i> , 2008, 188, 333-346.	1.3	166
2	A mathematical model to predict the in vivo pulsatile drag forces acting on bifurcated stent grafts used in endovascular treatment of abdominal aortic aneurysms (AAA). <i>Journal of Biomechanics</i> , 2004, 37, 1087-1095.	0.9	128
3	Vessel asymmetry as an additional diagnostic tool in the assessment of abdominal aortic aneurysms. <i>Journal of Vascular Surgery</i> , 2009, 49, 443-454.	0.6	127
4	3-D Numerical Simulation of Blood Flow Through Models of the Human Aorta. <i>Journal of Biomechanical Engineering</i> , 2005, 127, 767-775.	0.6	113
5	New Approaches to Abdominal Aortic Aneurysm Rupture Risk Assessment. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2010, 30, 1687-1694.	1.1	107
6	A Computational Study of the Magnitude and Direction of Migration Forces in Patient-specific Abdominal Aortic Aneurysm Stent-Grafts. <i>European Journal of Vascular and Endovascular Surgery</i> , 2010, 40, 332-339.	0.8	92
7	ECM-Based Materials in Cardiovascular Applications: Inherent Healing Potential and Augmentation of Native Regenerative Processes. <i>International Journal of Molecular Sciences</i> , 2009, 10, 4375-4417.	1.8	86
8	3D-Printed Tissue-Mimicking Phantoms for Medical Imaging and Computational Validation Applications. <i>3D Printing and Additive Manufacturing</i> , 2014, 1, 14-23.	1.4	81
9	The impact of long term freezing on the mechanical properties of porcine aortic tissue. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 37, 165-173.	1.5	80
10	The biaxial mechanical behaviour of abdominal aortic aneurysm intraluminal thrombus: Classification of morphology and the determination of layer and region specific properties. <i>Journal of Biomechanics</i> , 2014, 47, 1430-1437.	0.9	71
11	Identification of rupture locations in patient-specific abdominal aortic aneurysms using experimental and computational techniques. <i>Journal of Biomechanics</i> , 2010, 43, 1408-1416.	0.9	64
12	A comparison of modelling techniques for computing wall stress in abdominal aortic aneurysms. <i>BioMedical Engineering OnLine</i> , 2007, 6, 38.	1.3	63
13	3D Reconstruction and Manufacture of Real Abdominal Aortic Aneurysms: From CT Scan to Silicone Model. <i>Journal of Biomechanical Engineering</i> , 2008, 130, 034501.	0.6	61
14	Determining the influence of calcification on the failure properties of abdominal aortic aneurysm (AAA) tissue. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 42, 154-167.	1.5	61
15	Fluid-structure interaction of a patient-specific abdominal aortic aneurysm treated with an endovascular stent-graft. <i>BioMedical Engineering OnLine</i> , 2009, 8, 24.	1.3	60
16	Determination of Coefficient of Friction for Self-Expanding Stent-Grafts. <i>Journal of Biomechanical Engineering</i> , 2010, 132, 121007.	0.6	55
17	Numerical modelling of Newtonian and non-Newtonian representation of blood in a distal end-to-side vascular bypass graft anastomosis. <i>Medical Engineering and Physics</i> , 2006, 28, 70-74.	0.8	49
18	Effects of flat, parabolic and realistic steady flow inlet profiles on idealised and realistic stent graft fits through Abdominal Aortic Aneurysms (AAA). <i>Medical Engineering and Physics</i> , 2006, 28, 19-26.	0.8	48

#	ARTICLE	IF	CITATIONS
19	Geometrical Enhancements for Abdominal Aortic Stent-Grafts. <i>Journal of Endovascular Therapy</i> , 2008, 15, 518-529.	0.8	42
20	A Review of the In Vivo and In Vitro Biomechanical Behavior and Performance of Postoperative Abdominal Aortic Aneurysms and Implanted Stent-Grafts. <i>Journal of Endovascular Therapy</i> , 2008, 15, 468-484.	0.8	42
21	Dynamic hip screw <i>versus</i> DHS blade. <i>Journal of Bone and Joint Surgery: British Volume</i> , 2011, 93-B, 616-621.	3.4	42
22	The Biaxial Biomechanical Behavior of Abdominal Aortic Aneurysm Tissue. <i>Annals of Biomedical Engineering</i> , 2014, 42, 2440-2450.	1.3	42
23	Vascular Cell Adhesion Molecule-1 Expression in Endothelial Cells Exposed to Physiological Coronary Wall Shear Stresses. <i>Journal of Biomechanical Engineering</i> , 2009, 131, 081003.	0.6	40
24	Engineering Silicone Rubbers for In Vitro Studies: Creating AAA Models and ILT Analogues With Physiological Properties. <i>Journal of Biomechanical Engineering</i> , 2010, 132, 011008.	0.6	40
25	Xenogenic Extracellular Matrices as Potential Biomaterials for Interposition Grafting in Urological Surgery. <i>Journal of Urology</i> , 2010, 184, 2246-2253.	0.2	40
26	Evaluation of Viability and Proliferative Activity of Human Urothelial Cells Cultured Onto Xenogenic Tissue-Engineered Extracellular Matrices. <i>Urology</i> , 2011, 77, 1007.e1-1007.e7.	0.5	39
27	Wall Shear Stresses Remain Elevated in Mature Arteriovenous Fistulas: A Case Study. <i>Journal of Biomechanical Engineering</i> , 2011, 133, 021003.	0.6	39
28	Comparison of methods used to measure the thickness of soft tissues and their influence on the evaluation of tensile stress. <i>Journal of Biomechanics</i> , 2013, 46, 1955-1960.	0.9	39
29	An Experimental and Numerical Comparison of the Rupture Locations of an Abdominal Aortic Aneurysm. <i>Journal of Endovascular Therapy</i> , 2009, 16, 322-335.	0.8	38
30	Experimental modelling of aortic aneurysms: Novel applications of silicone rubbers. <i>Medical Engineering and Physics</i> , 2009, 31, 1002-1012.	0.8	38
31	On Reducing Abnormal Hemodynamics in the Femoral End-to-Side Anastomosis: The Influence of Mechanical Factors. <i>Annals of Biomedical Engineering</i> , 2005, 33, 310-322.	1.3	34
32	Regions of High Wall Stress Can Predict the Future Location of Rupture of Abdominal Aortic Aneurysm. <i>CardioVascular and Interventional Radiology</i> , 2014, 37, 815-818.	0.9	34
33	Analysis of wear and friction of total knee replacements. <i>Wear</i> , 2008, 265, 999-1008.	1.5	33
34	On the Existence of an Optimum End-to-side Junctional Geometry in Peripheral Bypass Surgery—A Computer Generated Study. <i>European Journal of Vascular and Endovascular Surgery</i> , 2003, 26, 649-656.	0.8	32
35	Stent graft performance in the treatment of abdominal aortic aneurysms: The influence of compliance and geometry. <i>Journal of Biomechanics</i> , 2013, 46, 383-395.	0.9	32
36	New Pulsatile Hydrostatic Pressure Bioreactor for Vascular Tissue-Engineered Constructs. <i>Artificial Organs</i> , 2010, 34, 153-158.	1.0	31

#	ARTICLE	IF	CITATIONS
37	Factors that affect mass transport from drug eluting stents into the artery wall. BioMedical Engineering OnLine, 2010, 9, 15.	1.3	30
38	Construction and Evaluation of Urinary Bladder Bioreactor for Urologic Tissue-engineering Purposes. Urology, 2011, 78, 954-960.	0.5	26
39	Injection-Moulded Models of Major and Minor Arteries: The Variability of Model Wall Thickness Owing to Casting Technique. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2005, 219, 381-386.	1.0	23
40	Use of Regional Mechanical Properties of Abdominal Aortic Aneurysms to Advance Finite Element Modeling of Rupture Risk. Journal of Endovascular Therapy, 2012, 19, 100-114.	0.8	23
41	Realistic Temporal Variations of Shear Stress Modulate MMP-2 and MCP-1 Expression in Arteriovenous Vascular Access. Cellular and Molecular Bioengineering, 2009, 2, 591-605.	1.0	19
42	A computational assessment of the hemodynamic effects of crossed and non-crossed bifurcated stent-graft devices for the treatment of abdominal aortic aneurysms. Medical Engineering and Physics, 2016, 38, 1458-1473.	0.8	19
43	Porcine extracellular matrix scaffolds in reconstructive urology: An ex vivo comparative study of their biomechanical properties. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 375-382.	1.5	18
44	Mechanical characterisation of unidirectional and cross-directional multilayered urinary bladder matrix (UBM) scaffolds. Medical Engineering and Physics, 2012, 34, 1368-1374.	0.8	18
45	Water dispersible semiconductor nanorod assemblies via a facile phase transfer and their application as fluorescent biomarkers. Journal of Materials Chemistry, 2009, 19, 8974.	6.7	17
46	On using experimentally estimated wall shear stresses to validate numerically predicted results. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2003, 217, 77-90.	1.0	16
47	Extracellular matrices as advanced scaffolds for vascular tissue engineering. Bio-Medical Materials and Engineering, 2009, 19, 333-348.	0.4	16
48	Acoustic Radiation Force Impulse Imaging on ex vivo Abdominal Aortic Aneurysm Model. Ultrasound in Medicine and Biology, 2010, 36, 821-832.	0.7	16
49	Spherical indentation of free-standing acellular extracellular matrix membranes. Acta Biomaterialia, 2012, 8, 262-273.	4.1	15
50	Improved assessment and treatment of abdominal aortic aneurysms: the use of 3D reconstructions as a surgical guidance tool in endovascular repair. Irish Journal of Medical Science, 2009, 178, 321-328.	0.8	14
51	The effect of vessel material properties and pulsatile wall motion on the fixation of a proximal stent of an endovascular graft. Medical Engineering and Physics, 2011, 33, 106-111.	0.8	14
52	Development of a rotational cell seeding system for tubularized extracellular matrix (ECM) scaffolds in vascular surgery. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2014, 102, 781-788.	1.6	14
53	The effects of stent interaction on porcine urinary bladder matrix employed as stent-graft materials. Journal of Biomechanics, 2014, 47, 1885-1893.	0.9	14
54	Evidence suggests rigid aortic grafts increase systolic blood pressure: Results of a preliminary study. Medical Engineering and Physics, 2008, 30, 109-115.	0.8	13

#	ARTICLE	IF	CITATIONS
55	An Improved Methodology for Investigating the Parameters Influencing Migration Resistance of Abdominal Aortic Stent-Grafts. <i>Journal of Endovascular Therapy</i> , 2010, 17, 95-107.	0.8	13
56	Implantable Systems for Stress Urinary Incontinence. <i>Annals of Biomedical Engineering</i> , 2017, 45, 2717-2732.	1.3	13
57	Computational investigations of a new prosthetic femoral-popliteal bypass graft design. <i>Journal of Vascular Surgery</i> , 2005, 42, 1169-1175.	0.6	12
58	Surgical Feasibility Study of a Novel Polytetrafluoroethylene Graft Design for the Treatment of Peripheral Arterial Disease. <i>Annals of Vascular Surgery</i> , 2007, 21, 611-617.	0.4	12
59	Use of finite element analysis in presurgical planning: treatment of mandibular fractures. <i>Irish Journal of Medical Science</i> , 2008, 177, 325-331.	0.8	12
60	Altering end-to-side anastomosis junction hemodynamics: The effects of flow-splitting. <i>Medical Engineering and Physics</i> , 2006, 28, 727-733.	0.8	11
61	In vivo feasibility case study for evaluating abdominal aortic aneurysm tissue properties and rupture potential using acoustic radiation force impulse imaging. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2011, 4, 507-513.	1.5	11
62	Hemodynamic variations due to spiral blood flow through four patient-specific bifurcated stent graft configurations for the treatment of abdominal aortic aneurysms. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2013, 29, 179-196.	1.0	10
63	An evolutionary approach to Wall Shear Stress prediction in a grafted artery. <i>Applied Soft Computing Journal</i> , 2004, 4, 139-148.	4.1	9
64	Augmentation Cystoplasty and Extracellular Matrix Scaffolds: An Ex Vivo Comparative Study with Autogenous Detubularised Ileum. <i>PLoS ONE</i> , 2011, 6, e20323.	1.1	9
65	In vitro evaluation of acellular porcine urinary bladder extracellular matrix "A potential scaffold in tissue engineered skin. <i>Wound Medicine</i> , 2015, 10-11, 9-16.	2.7	9
66	COMMENTARY: Computational Rupture Prediction of AAAs: What Needs to Be Done Next?. <i>Journal of Endovascular Therapy</i> , 2011, 18, 226-229.	0.8	8
67	On the potential of hydrated storage for naturally derived ECMs and associated effects on mechanical and cellular performance. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2014, 102, 89-97.	1.6	8
68	That Hemodynamics and Not Material Mismatch is of Primary Concern in Bypass Graft Failure: An Experimental Argument. <i>Journal of Biomechanical Engineering</i> , 2005, 127, 881-886.	0.6	7
69	X-ray and microstructural investigation of NiTiPt alloys homogenised at intermediate to high temperatures. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2010, 268, 287-290.	0.6	7
70	Experimental validation of convection-diffusion discretisation scheme employed for computational modelling of biological mass transport. <i>BioMedical Engineering OnLine</i> , 2010, 9, 34.	1.3	7
71	Optimizing the fat and water content of impaction bone allograft. <i>Journal of Orthopaedic Research</i> , 2013, 31, 243-248.	1.2	7
72	Cell-Seeded Extracellular Matrices for Bladder Reconstruction: An ex vivo Comparative Study of their Biomechanical Properties. <i>International Journal of Artificial Organs</i> , 2013, 36, 251-258.	0.7	7

#	ARTICLE	IF	CITATIONS
73	Correlation of Hemodynamic Parameters to Endothelial Cell Proliferation in an End to Side Anastomosis. Cardiovascular Engineering and Technology, 2014, 5, 110-118.	0.7	7
74	The effect of choice of sterilisation method on the biocompatibility and biodegradability of SIS (small) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.4	7
75	<i>In vitro</i> measurement of the axial migration force on the proximal end of a bifurcated abdominal aortic aneurysm stent-graft model. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2011, 225, 401-409.	1.0	6
76	Evaluation of xenogenic extracellular matrices as adjuvant scaffolds for the treatment of stress urinary incontinence. International Urogynecology Journal, 2013, 24, 2105-2110.	0.7	5
77	Human balance responses to perturbations in the horizontal plane. , 2014, 2014, 4058-61.		5
78	Hip Protectors in Fracture Prevention for Aging Adults at Risk of Falling. Journal of Geriatric Physical Therapy, 2009, 32, 153-158.	0.6	4
79	Finite element and photoelastic modelling of an abdominal aortic aneurysm: a comparative study. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 1111-1119.	0.9	4
80	Automatic Decellularization of Ovine Aorta-Derived Extracellular Matrix Offers Reduced Processing and Attendee Times While Being as Effective as Manual Techniques. Tissue Engineering - Part C: Methods, 2015, 21, 480-488.	1.1	4
81	On the Automatic Decellularisation of Porcine Aortae: A Repeatability Study Using a Non-Enzymatic Approach. Cells Tissues Organs, 2016, 201, 299-318.	1.3	4
82	Experimental Assessment of Stress Patterns in Abdominal Aortic Aneurysms using the Photoelastic Method. , 2004, 40, 165.		4
83	Mass Transport Disturbances in the Distal Graft/Artery Junction of a Peripheral Bypass Graft. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2005, 219, 465-476.	1.0	3
84	Fluidâ€™Structure Interaction in Healthy, Diseased and Endovascularly Treated Abdominal Aortic Aneurysms. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2011, , 163-179.	0.7	3
85	Influence of implant design on the method of failure for three implants designed for use in the treatment of intertrochanteric fractures: the dynamic hip screw (DHS), DHS blade and X-BOLT. European Journal of Trauma and Emergency Surgery, 2013, 39, 249-255.	0.8	3
86	Development of Wireless Pressure Measurement System for Short Range medical Applications. , 2007, ,		2
87	Regenerative medicine, tissue engineering and vascular surgery: twenty first century clinical challenges. Irish Journal of Medical Science, 2010, 179, 1-2.	0.8	2
88	Experimental Analysis of Endovascular Treatment of AAA and Predictors of Long Term Outcomes. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2011, , 247-284.	0.7	2
89	Design and Evaluation of a Novel Subatmospheric Pressure Bioreactor for the Preconditioning of Tissue-Engineered Vascular Constructs. International Journal of Artificial Organs, 2016, 39, 77-83.	0.7	2
90	NUMERICAL AND EXPERIMENTAL TECHNIQUES FOR THE STUDY OF BIOMECHANICS IN THE ARTERIAL SYSTEM. , 2007, , 233-270.		2

#	ARTICLE	IF	CITATIONS
91	Segmentation of Abdominal Aortic Aneurysm (AAA) Based on Topology Prior Model. Communications in Computer and Information Science, 2017, , 219-228.	0.4	2
92	Wireless Measurement System for Capacitive pressure Sensors Using Strain Compensated SiGeB. , 2007, , .		1
93	Generation of Realistic Physical Models of Cerebral Aneurysms for In Vitro Flow Visualisation. , 2009, , .		1
94	19 EVALUATION OF VIABILITY AND PROLIFERATIVE ACTIVITY OF HUMAN UROTHELIAL CELLS CULTURED ONTO XENOGENIC TISSUE-ENGINEERED EXTRACELLULAR MATRICES. Journal of Urology, 2011, 185, .	0.2	1
95	A Review of Methods for Determining the Long Term Behavior of Endovascular Devices. Cardiovascular Engineering and Technology, 2014, 5, 1-12.	0.7	1
96	A Novel Multiple Watermarking Algorithm for Patient Identification and Integrity Control. , 2015, , .		1
97	Insect Ultra-Structures as Effective Physical-Based Bactericidal Surfaces. IEEE Transactions on Medical Robotics and Bionics, 2020, 2, 425-436.	2.1	1
98	Arterial Circulation and Disease Processes. , 2010, , 269-311.		1
99	Acoustic Radiation Force Impulse imaging for aneurysms. , 2009, , .		0
100	Experimental Validation of the Influence of Stent Strut Compression on Artery Wall Drug Mass Transport. , 2009, , .		0
101	Design and Development of Silicone Rubbers for Use in the Experimental Modelling of Abdominal Aortic Aneurysms. , 2009, , .		0
102	Deformations During and Post Stenting of a Diseased Coronary Artery Phantom: An In Vitro Study. , 2009, , .		0
103	Innovative Design and Manufacturing Techniques for Patient Specific Abdominal Aortic Aneurysm Flexible Benchtop Models. , 2013, , .		0
104	A Computational Investigation of Blood Flow in Realistic AAA Stent-Grafts. , 2007, , .		0
105	3D Reconstruction of Patient-Specific Abdominal Aortic Aneurysms: From CT Scan to Silicone Model. , 2007, , .		0
106	Affect of Abdominal Aortic Aneurysm Stent-Graft Design on Arterial Haemodynamics. , 2008, , .		0
107	Analysis of Post-Operative Abdominal Aortic Aneurysm Repair: A Multi Patient-Specific Study. , 2009, , .		0
108	The Effects on the Strength of UBM Extracellular Matrix Under Stent Loading: An Experimental and Numerical Study. , 2009, , .		0

#	ARTICLE	IF	CITATIONS
109	Strength of Atherosclerotic Plaque in Carotid Artery. , 2009, , .		0
110	The Development of Physiological Compliant Abdominal Aortic Aneurysm Models for In Vitro Flow Studies. , 2009, , .		0
111	Storage Effects on the Mechanical and Cellular Performance of Naturally Derived Extracellular Matrix Materials. IFMBE Proceedings, 2010, , 139-142.	0.2	0
112	Evaluating the Shear Resistance of Human Endothelial Cells under Physiological Conditions for 3D Substrate Materials. IFMBE Proceedings, 2010, , 143-146.	0.2	0
113	The Relationship Between Wall Stress and 3D Asymmetry in Repaired and Ruptured Abdominal Aortic Aneurysms. , 2010, , .		0
114	Improvements in Rupture Prediction of Abdominal Aortic Aneurysms Using Local Mechanical Property Estimation Obtained From ECG-Gated Computed Tomography. , 2010, , .		0
115	Experimental Measurement of the Migration Force at the Proximal End of an Aortic Endograft. , 2010, , .		0
116	Use of the Photoelastic Method to Determine the Wall Stress in Realistic Abdominal Aortic Aneurysm Models. , 2011, , .		0
117	The Hemodynamic Influence due to the Inclusion of the Full Aorta on a Patient Specific Stent Graft (SG) Device. , 2012, , .		0
118	Evaluation of a novel vascular graft with a distal bifurcation designed to reduce the development of intimal hyperplasia. Experimental study in a porcine aorta model. Biomedical Papers of the Medical Faculty of the University Palacký́, Olomouc, Czechoslovakia, 2014, 158, 562-568.	0.2	0