

# Tom J Macgillivray

## List of Publications by Year in descending order

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Version: 2024-02-01

71  
papers

2,640  
citations

236925

25  
h-index

214800

47  
g-index

78  
all docs

78  
docs citations

78  
times ranked

4130  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluation of algorithms for Multi-Modality Whole Heart Segmentation: An open-access grand challenge. <i>Medical Image Analysis</i> , 2019, 58, 101537.	11.6	180
2	Machine learning of neuroimaging for assisted diagnosis of cognitive impairment and dementia: A systematic review. <i>Alzheimer's and Dementia: Diagnosis, Assessment and Disease Monitoring</i> , 2018, 10, 519-535.	2.4	162
3	Abdominal Aortic Aneurysm Growth Predicted by Uptake of Ultrasmall Superparamagnetic Particles of Iron Oxide. <i>Circulation: Cardiovascular Imaging</i> , 2011, 4, 274-281.	2.6	153
4	Ultrasmall Superparamagnetic Particles of Iron Oxide in Patients With Acute Myocardial Infarction. <i>Circulation: Cardiovascular Imaging</i> , 2012, 5, 559-565.	2.6	148
5	Validating Retinal Fundus Image Analysis Algorithms: Issues and a Proposal. , 2013, 54, 3546.		142
6	Aortic Wall Inflammation Predicts Abdominal Aortic Aneurysm Expansion, Rupture, and Need for Surgical Repair. <i>Circulation</i> , 2017, 136, 787-797.	1.6	122
7	Dietary Electrolyte-Driven Responses in the Renal WNK Kinase Pathway In Vivo. <i>Journal of the American Society of Nephrology: JASN</i> , 2006, 17, 2402-2413.	6.1	113
8	In Vivo Mononuclear Cell Tracking Using Superparamagnetic Particles of Iron Oxide. <i>Circulation: Cardiovascular Imaging</i> , 2012, 5, 509-517.	2.6	100
9	Retinal imaging as a source of biomarkers for diagnosis, characterization and prognosis of chronic illness or long-term conditions. <i>British Journal of Radiology</i> , 2014, 87, 20130832.	2.2	98
10	Cognitive Correlates of Cerebral White Matter Lesions and Water Diffusion Tensor Parameters in Community-Dwelling Older People. <i>Cerebrovascular Diseases</i> , 2005, 20, 310-318.	1.7	89
11	A review of machine learning methods for retinal blood vessel segmentation and artery/vein classification. <i>Medical Image Analysis</i> , 2021, 68, 101905.	11.6	86
12	The Association between Retinal Vascular Network Geometry and Cognitive Ability in an Elderly Population. , 2007, 48, 1995.		70
13	Peripheral Retinal Imaging Biomarkers for Alzheimer's Disease: A Pilot Study. <i>Ophthalmic Research</i> , 2018, 59, 182-192.	1.9	64
14	DiCyc: GAN-based deformation invariant cross-domain information fusion for medical image synthesis. <i>Information Fusion</i> , 2021, 67, 147-160.	19.1	62
15	Suitability of UK Biobank Retinal Images for Automatic Analysis of Morphometric Properties of the Vasculature. <i>PLoS ONE</i> , 2015, 10, e0127914.	2.5	56
16	3D Freehand Ultrasound for in vivo Determination of Human Skeletal Muscle Volume. <i>Ultrasound in Medicine and Biology</i> , 2009, 35, 928-935.	1.5	54
17	Role of multidetector computed tomography in the diagnosis and management of patients attending the rapid access chest pain clinic, The Scottish computed tomography of the heart (SCOT-HEART) trial: study protocol for randomized controlled trial. <i>Trials</i> , 2012, 13, 184.	1.6	52
18	Retinal microvasculature and cerebral small vessel disease in the Lothian Birth Cohort 1936 and Mild Stroke Study. <i>Scientific Reports</i> , 2019, 9, 6320.	3.3	49

#	ARTICLE	IF	CITATIONS
19	Robust Revascularization in Models of Limb Ischemia Using a Clinically Translatable Human Stem Cell-Derived Endothelial Cell Product. <i>Molecular Therapy</i> , 2018, 26, 1669-1684.	8.2	48
20	Childhood and current cognitive function in healthy 80-year-olds: a DT-MRI study. <i>NeuroReport</i> , 2003, 14, 345-349.	1.2	44
21	Blood vessel segmentation and width estimation in ultra-wide field scanning laser ophthalmoscopy. <i>Biomedical Optics Express</i> , 2014, 5, 4329.	2.9	43
22	Positron Emission Tomography and Magnetic Resonance Imaging of Cellular Inflammation in Patients with Abdominal Aortic Aneurysms. <i>European Journal of Vascular and Endovascular Surgery</i> , 2016, 51, 518-526.	1.5	43
23	Automated Segmentation of Optical Coherence Tomography Angiography Images: Benchmark Data and Clinically Relevant Metrics. <i>Translational Vision Science and Technology</i> , 2020, 9, 5.	2.2	43
24	Magnetic resonance imaging with k-means clustering objectively measures whole muscle volume compartments in sarcopenia/cancer cachexia. <i>Clinical Nutrition</i> , 2011, 30, 106-111.	5.0	42
25	MRI using ultrasmall superparamagnetic particles of iron oxide in patients under surveillance for abdominal aortic aneurysms to predict rupture or surgical repair: MRI for abdominal aortic aneurysms to predict rupture or surgery—the MA <sup>3</sup> RS study. <i>Open Heart</i> , 2015, 2, e000190.	2.3	41
26	Asymmetry of Retinal Arteriolar Branch Widths at Junctions Affects Ability of Formulae to Predict Trunk Arteriolar Widths. , 2006, 47, 1329.		38
27	Retinal Arteriolar Geometry is Associated with Cerebral White Matter Hyperintensities on Magnetic Resonance Imaging. <i>International Journal of Stroke</i> , 2010, 5, 434-439.	5.9	33
28	Retinal Vascular Fractal Dimension, Childhood IQ, and Cognitive Ability in Old Age: The Lothian Birth Cohort Study 1936. <i>PLoS ONE</i> , 2015, 10, e0121119.	2.5	26
29	Retinal microvascular network geometry and cognitive abilities in community-dwelling older people: The Lothian Birth Cohort 1936 study. <i>British Journal of Ophthalmology</i> , 2017, 101, 993-998.	3.9	25
30	Computed tomography myocardial perfusion vs 15O-water positron emission tomography and fractional flow reserve. <i>European Radiology</i> , 2017, 27, 1114-1124.	4.5	25
31	A Graph Cut Approach to Artery/Vein Classification in Ultra-Widefield Scanning Laser Ophthalmoscopy. <i>IEEE Transactions on Medical Imaging</i> , 2018, 37, 516-526.	8.9	24
32	Measurement of myocardial blood flow by cardiovascular magnetic resonance perfusion: comparison of distributed parameter and Fermi models with single and dual bolus. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2015, 17, 17.	3.3	22
33	A multimodal approach to cardiovascular risk stratification in patients with type 2 diabetes incorporating retinal, genomic and clinical features. <i>Scientific Reports</i> , 2019, 9, 3591.	3.3	21
34	Retinal venular tortuosity and fractal dimension predict incident retinopathy in adults with type 2 diabetes: the Edinburgh Type 2 Diabetes Study. <i>Diabetologia</i> , 2021, 64, 1103-1112.	6.3	21
35	Association of retinal arteriolar dilatation with lower verbal memory: the Edinburgh Type 2 Diabetes Study. <i>Diabetologia</i> , 2011, 54, 1653-1662.	6.3	20
36	Relationship Between Venules and Perivascular Spaces in Sporadic Small Vessel Diseases. <i>Stroke</i> , 2020, 51, 1503-1506.	2.0	20

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37	Dietary patterns and chronic kidney disease: a cross-sectional association in the Irish Nun Eye Study. <i>Scientific Reports</i> , 2018, 8, 6654.	3.3	17
38	Rationale and design of a longitudinal study of cerebral small vessel diseases, clinical and imaging outcomes in patients presenting with mild ischaemic stroke: Mild Stroke Study 3. <i>European Stroke Journal</i> , 2021, 6, 81-88.	5.5	17
39	Birth Parameters Are Associated With Late-Life White Matter Integrity in Community-Dwelling Older People. <i>Stroke</i> , 2009, 40, 1225-1228.	2.0	15
40	Retinal arteriolar tortuosity and fractal dimension are associated with long-term cardiovascular outcomes in people with type 2 diabetes. <i>Diabetologia</i> , 2021, 64, 2215-2227.	6.3	14
41	Evaluation of coronary artery disease as a risk factor for reticular pseudodrusen. <i>British Journal of Ophthalmology</i> , 2018, 102, 483-489.	3.9	13
42	Retinal Vessel Tortuosity in Response to Hypobaric Hypoxia. <i>High Altitude Medicine and Biology</i> , 2012, 13, 263-268.	0.9	12
43	The Eye as a Non-Invasive Window to the Microcirculation in Liver Cirrhosis: A Prospective Pilot Study. <i>Journal of Clinical Medicine</i> , 2020, 9, 3332.	2.4	11
44	Prediction of Major Adverse Cardiovascular Events From Retinal, Clinical, and Genomic Data in Individuals With Type 2 Diabetes: A Population Cohort Study. <i>Diabetes Care</i> , 2022, 45, 710-716.	8.6	11
45	Carotid Intima-Media Thickness and Cerebrovascular Disease in Community-Dwelling Older People Without Stroke. <i>Stroke</i> , 2010, 41, 2083-2086.	2.0	10
46	Retinal Vessel Phenotype in Patients with Nonarteritic Anterior Ischemic Optic Neuropathy. <i>American Journal of Ophthalmology</i> , 2019, 208, 178-184.	3.3	10
47	Exploring the Biological and Mechanical Properties of Abdominal Aortic Aneurysms Using USPIO MRI and Peak Tissue Stress: A Combined Clinical and Finite Element Study. <i>Journal of Cardiovascular Translational Research</i> , 2017, 10, 489-498.	2.4	9
48	Using orthogonal locality preserving projections to find dominant features for classifying retinal blood vessels. <i>Multimedia Tools and Applications</i> , 2019, 78, 12783-12803.	3.9	8
49	B-mode compound imaging in mice. <i>Ultrasound in Medicine and Biology</i> , 2006, 32, 29-32.	1.5	7
50	Temporal Compounding: A Novel Implementation and Its Impact on Quality and Diagnostic Value in Echocardiography. <i>Ultrasound in Medicine and Biology</i> , 2015, 41, 1749-1765.	1.5	7
51	Sonographic bridging callus at six weeks following displaced midshaft clavicle fracture can accurately predict healing. <i>Bone and Joint Research</i> , 2021, 10, 113-121.	3.6	7
52	On the quantitative effects of compression of retinal fundus images on morphometric vascular measurements in VAMPIRE. <i>Computer Methods and Programs in Biomedicine</i> , 2021, 202, 105969.	4.7	7
53	Comparing Measurements of Vascular Diameter Using Adaptive Optics Imaging and Conventional Fundus Imaging. <i>Diagnostics</i> , 2022, 12, 705.	2.6	7
54	Vasomotor and fibrinolytic responses to kinin receptor agonists in the atherosclerotic human lower limb. <i>Heart and Vessels</i> , 2012, 27, 179-185.	1.2	6

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55	Estimated Glomerular Filtration Rate is not Associated with Alzheimer's Disease in a Northern Ireland Cohort. <i>Journal of Alzheimer's Disease</i> , 2017, 60, 1379-1385.	2.6	6
56	Quantitative measurements of enlarged perivascular spaces in the brain are associated with retinal microvascular parameters in older community-dwelling subjects. <i>Cerebral Circulation - Cognition and Behavior</i> , 2020, 1, 100002.	0.9	6
57	Dynamic Enhancement of B-Mode Cardiac Ultrasound Image Sequences. <i>Ultrasound in Medicine and Biology</i> , 2017, 43, 1533-1548.	1.5	5
58	Retinal Imaging in Early Alzheimer's Disease. <i>Neuromethods</i> , 2018, , 199-212.	0.3	5
59	Elevational spatial compounding for enhancing image quality in echocardiography. <i>Ultrasound</i> , 2016, 24, 74-85.	0.7	4
60	The Association Between Retinal Vessel Morphology and Retinal Nerve Fiber Layer Thickness in an Elderly Population. <i>Ophthalmic Surgery Lasers and Imaging Retina</i> , 2012, 43, S61-6.	0.7	4
61	Temporal compounding of cardiac ultrasound data: Improving image quality and clinical measurement repeatability. , 2009, 2009, 3661-4.		3
62	Retinal Vessel Analysis as a Novel Screening Tool to Identify Childhood Acute Lymphoblastic Leukemia Survivors at Risk of Cardiovascular Disease. <i>Journal of Pediatric Hematology/Oncology</i> , 2020, 42, e394-e400.	0.6	3
63	3D ultrasound reconstruction of sonographic callus. <i>Bone and Joint Research</i> , 2021, 10, 759-766.	3.6	3
64	Quantitative myocardial inflammation assessed using a novel USPIO-Magnetic Resonance Imaging acquisition and analysis protocol. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2013, 15, O114.	3.3	2
65	Quantitative Parameters from OCT Angiography in Patients with Diabetic Retinopathy and in Those with Only Peripheral Retinopathy Compared with Control Participants. <i>Ophthalmology Science</i> , 2021, 1, 100030.	2.5	2
66	Retinal Biomarkers Discovery for Cerebral Small Vessel Disease in an Older Population. <i>Communications in Computer and Information Science</i> , 2020, , 400-409.	0.5	2
67	2D alpha-shapes to quantify retinal microvasculature morphology and their application to proliferative diabetic retinopathy characterisation in fundus photographs. <i>Scientific Reports</i> , 2021, 11, 22814.	3.3	2
68	Investigating post-processing of scanning laser ophthalmoscope images for unsupervised retinal blood vessel detection. , 2013, , .		1
69	MRI enhanced with ultrasmall superparamagnetic particles of iron oxide in the assessment of cellular inflammation after myocardial infarction. <i>Lancet, The</i> , 2016, 387, S94.	13.7	1
70	Changes in retinal vascular diameters in senior and geriatric cats in association with variation in systemic blood pressure. <i>Journal of Feline Medicine and Surgery</i> , 2021, 23, 1129-1139.	1.6	1
71	3D ultrasound. , 0, , 171-180.		0