Calum A Macrae

List of Publications by Year
in descending order

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Version: 2024-02-01

132 papers	7,429 citations	81900 39 h-index	58581 82 g-index
142 all docs	142 docs citations	142 times ranked	11327 citing authors

#	Article	IF	Citations
1	Population health management of low-density lipoprotein cholesterol via a remote, algorithmic, navigator-executed program. American Heart Journal, 2022, 243, 15-27.	2.7	8
2	PIEZO1 mediates a mechanothrombotic pathway in diabetes. Science Translational Medicine, 2022, 14, eabk1707.	12.4	28
3	Genetic Testing in Sudden Cardiac Arrest: the History and Physical Exam Remain Central in the Genomics Era. Circulation Genomic and Precision Medicine, 2022, , CIRCGEN121003520.	3.6	0
4	Glyoxylate protects against cyanide toxicity through metabolic modulation. Scientific Reports, 2022, 12, 4982.	3.3	4
5	Cardiovascular Risk Assessment Using Artificial Intelligence-Enabled Event Adjudication and Hematologic Predictors. Circulation: Cardiovascular Quality and Outcomes, 2022, 15, 101161CIRCOUTCOMES121008007.	2.2	5
6	Single Cell Biology: Exploring Somatic Cell Behaviors, Competition and Selection in Chronic Disease. Frontiers in Pharmacology, 2022, 13, .	3.5	1
7	Non-invasive Thoracic Impedance Changes in COVID-19 Pulmonary Infection. Journal of Cardiovascular Translational Research, 2021, 14, 387-389.	2.4	2
8	Digital Care Transformation. Circulation, 2021, 143, 507-509.	1.6	40
9	Deep Phenotyping in Cardiovascular Disease. Current Treatment Options in Cardiovascular Medicine, 2021, 23, 1.	0.9	5
10	Ecosystem Barriers to Innovation Adoption in Clinical Practice. Trends in Molecular Medicine, 2021, 27, 5-7.	6.7	3
11	Lysolipids in Vascular Development, Biology, and Disease. Arteriosclerosis, Thrombosis, and Vascular Biology, 2021, 41, 564-584.	2.4	15
12	A call to action for new global approaches to cardiovascular disease drug solutions. European Heart Journal, 2021, 42, 1464-1475.	2.2	29
13	Evaluation of the Usage and Dosing of Guideline-Directed Medical Therapy for Heart Failure With Reduced Ejection Fraction Patients in Clinical Practice. Journal of Pharmacy Practice, 2021, , 089719002110048.	1.0	6
14	Artificial intelligence-enabled fully automated detection of cardiac amyloidosis using electrocardiograms and echocardiograms. Nature Communications, 2021, 12, 2726.	12.8	73
15	Targeting the Microtubule EB1-CLASP2 Complex Modulates Na _V 1.5 at Intercalated Discs. Circulation Research, 2021, 129, 349-365.	4.5	23
16	A Call to Action for New Global Approaches to Cardiovascular Disease Drug Solutions. Circulation, 2021, 144, 159-169.	1.6	18
17	MIC-Drop: A platform for large-scale in vivo CRISPR screens. Science, 2021, 373, 1146-1151.	12.6	36
18	Valsartan in early-stage hypertrophic cardiomyopathy: a randomized phase 2 trial. Nature Medicine, 2021, 27, 1818-1824.	30.7	51

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19	Abstract 11814: Definitive Diagnostic Yield in a Referral Population is Similar to That of Cascade Genetic Screening. Circulation, 2021, 144, .	1.6	0
20	Noninvasive Scale Measurement of Stroke Volume and Cardiac Output Compared With the Direct Fick Method: A Feasibility Study. Journal of the American Heart Association, 2021, 10, e021893.	3.7	5
21	The Undiagnosed Diseases Network as a Tool for Graduate Medical Education. American Journal of Medicine, 2020, 133, e18-e22.	1.5	0
22	Rationale and design of a navigatorâ€driven remote optimization of guidelineâ€directed medical therapy in patients with heart failure with reduced ejection fraction. Clinical Cardiology, 2020, 43, 4-13.	1.8	17
23	Metastable Atrial State Underlies the Primary Genetic Substrate for MYL4 Mutation-Associated Atrial Fibrillation. Circulation, 2020, 141, 301-312.	1.6	28
24	Moving Genomics to Routine Care. Circulation Genomic and Precision Medicine, 2020, 13, 406-416.	3.6	11
25	Remote Optimization of Guideline-Directed Medical Therapy in Patients With Heart Failure With Reduced Ejection Fraction. JAMA Cardiology, 2020, 5, 1430.	6.1	62
26	Reimagining What We Measure in Atherosclerosisâ€"a â€œPhenotype Stackâ€• Circulation Research, 2020, 126, 1146-1158.	4.5	8
27	Impact of functional studies on exome sequence variant interpretation in early-onset cardiac conduction system diseases. Cardiovascular Research, 2020, 116, 2116-2130.	3.8	11
28	The Deep Genome Project. Genome Biology, 2020, 21, 18.	8.8	30
29	The endosomal trafficking regulator LITAF controls the cardiac Nav1.5 channel via the ubiquitin ligase NEDD4-2. Journal of Biological Chemistry, 2020, 295, 18148-18159.	3.4	8
30	Closing the â€˜phenotype gapâ€™ in precision medicine: improving what we measure to understand complex disease mechanisms. Mammalian Genome, 2019, 30, 201-211.	2.2	5
31	Phenotypic Manifestations of Arrhythmogenic Cardiomyopathy in Children and Adolescents. Journal of the American College of Cardiology, 2019, 74, 346-358.	2.8	63
32	The uptake of family screening in hypertrophic cardiomyopathy and an online video intervention to facilitate family communication. Molecular Genetics & Genomic Medicine, 2019, 7, e940.	1.2	13
33	LITAF (Lipopolysaccharide-Induced Tumor Necrosis Factor) Regulates Cardiac L-Type Calcium Channels by Modulating NEDD (Neural Precursor Cell Expressed Developmentally Downregulated Protein) 4-1 Ubiquitin Ligase. Circulation Genomic and Precision Medicine, 2019, 12, 407-420.	3.6	9
34	Evolution of academicâ€“industry partnerships in cardiovascular research and development. Nature Reviews Cardiology, 2019, 16, 449-451.	13.7	1
35	Intramuscular administration of hexachloroplatinate reverses cyanide-induced metabolic derangements and counteracts severe cyanide poisoning. FASEB BioAdvances, 2019, 1, 81-92.	2.4	17
36	Screening drugs for myocardial disease in vivo with zebrafish: an expert update. Expert Opinion on Drug Discovery, 2019, 14, 343-353.	5.0	13

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37	Zebrafish model of amyloid light chain cardiotoxicity: regeneration versus degeneration. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 316, H1158-H1166.	3.2	17
38	Phenotypic Characterization of Individuals With Variants in Cardiovascular Genes in the Absence of a Primary Cardiovascular Indication for Testing. Circulation Genomic and Precision Medicine, 2019, 12, e002463.	3.6	3
39	Baseline Characteristics of the VANISH Cohort. Circulation: Heart Failure, 2019, 12, e006231.	3.9	10
40	Development of an entirely remote, nonâ€physician led hypertension management program. Clinical Cardiology, 2019, 42, 285-291.	1.8	43
41	Trafficking of the human ether-a-go-go-related gene (hERG) potassium channel is regulated by the ubiquitin ligase rififylin (RFFL). Journal of Biological Chemistry, 2019, 294, 351-360.	3.4	11
42	Phenotyping to Facilitate Accrual for a Cardiovascular Intervention. Journal of Clinical Medicine Research, 2019, 11, 458-463.	1.2	5
43	LITAF regulates action potential duration by modulating NEDD4â€1â€mediated degradation of Lâ€type calcium channels. FASEB Journal, 2019, 33, 824.19.	0.5	0
44	Extending i2b2 into a framework for semantic abstraction of EHR to facilitate rapid development and portability of Health IT applications. AMIA Summits on Translational Science Proceedings, 2019, 2019, 370-378.	0.4	3
45	nkxgenes establish SHF cardiomyocyte progenitors at the arterial pole and pattern the venous pole through Isl1 repression. Development (Cambridge), 2018, 145, .	2.5	23
46	A New Approach to an Old Problem. Circulation Research, 2018, 122, 1172-1175.	4.5	9
47	Family history of atrial fibrillation as a predictor of atrial substrate and arrhythmia recurrence in patients undergoing atrial fibrillation catheter ablation. Europace, 2018, 20, 921-928.	1.7	10
48	Extraction of Ejection Fraction from Echocardiography Notes for Constructing a Cohort of Patients having Heart Failure with reduced Ejection Fraction (HFrEF). Journal of Medical Systems, 2018, 42, 209.	3.6	18
49	Rare Diseases Inform Myocardial Phenotypes for Precision Medicine. Journal of Cardiac Failure, 2018, 24, 680-681.	1.7	0
50	Evaluation of a transitional care pharmacist intervention in a high-risk cardiovascular patient population. American Journal of Health-System Pharmacy, 2018, 75, S63-S71.	1.0	21
51	Zebrafish assay development for cardiovascular disease mechanism and drug discovery. Progress in Biophysics and Molecular Biology, 2018, 138, 126-131.	2.9	9
52	An integrated clinical program and crowdsourcing strategy for genomic sequencing and Mendelian disease gene discovery. Npj Genomic Medicine, 2018, 3, 21.	3.8	24
53	Identification of specific metabolic pathways as druggable targets regulating the sensitivity to cyanide poisoning. PLoS ONE, 2018, 13, e0193889.	2.5	12
54	Cardiac Nav1.5 Channel is Regulated by LITAF. FASEB Journal, 2018, 32, 533.81.	0.5	0

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55	The Design of the Valsartan for Attenuating Disease Evolution in Early Sarcomeric Hypertrophic Cardiomyopathy (VANISH) Trial. American Heart Journal, 2017, 187, 145-155.	2.7	41
56	Using Zebrafish for High-Throughput Screening of Novel Cardiovascular Drugs. JACC Basic To Translational Science, 2017, 2, 1-12.	4.1	34
57	Cisplatin Analogs Confer Protection against Cyanide Poisoning. Cell Chemical Biology, 2017, 24, 565-575.e4.	5.2	17
58	An NPPB Promoter Polymorphism Associated With Elevated Nâ€Terminal proâ€“Bâ€Type Natriuretic Peptide and Lower Blood Pressure, Hypertension, and Mortality. Journal of the American Heart Association, 2017, 6, .	3.7	42
59	Bedside Back to Bench: Building Bridges between Basic and Clinical Genomic Research. Cell, 2017, 169, 6-12.	28.9	103
60	A Comparison of Whole Genome Sequencing to Multigene Panel Testing in Hypertrophic Cardiomyopathy Patients. Circulation: Cardiovascular Genetics, 2017, 10, .	5.1	62
61	Closing the Genotype-Phenotype Loop for Precision Medicine. Circulation, 2017, 136, 1492-1494.	1.6	5
62	The Impact of Whole-Genome Sequencing on the Primary Care and Outcomes of Healthy Adult Patients. Annals of Internal Medicine, 2017, 167, 159.	3.9	145
63	Identification of pathogenic gene mutations in LMNA and MYBPC3 that alter RNA splicing. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7689-7694.	7.1	70
64	Elucidation of MRAS-mediated Noonan syndrome with cardiac hypertrophy. JCI Insight, 2017, 2, e91225.	5.0	66
65	Large-scale genome-wide analysis identifies genetic variants associated with cardiac structure and function. Journal of Clinical Investigation, 2017, 127, 1798-1812.	8.2	106
66	Skin and Vascular Diseaseâ€”Inside-Out/Outside-In. JAMA Cardiology, 2017, 2, 944.	6.1	0
67	Central role for GSK3Î² in the pathogenesis of arrhythmogenic cardiomyopathy. JCI Insight, 2016, 1, .	5.0	127
68	THSD1 (Thrombospondin Type 1 Domain Containing Protein 1) Mutation in the Pathogenesis of Intracranial Aneurysm and Subarachnoid Hemorrhage. Stroke, 2016, 47, 3005-3013.	2.0	39
69	Accelerating Innovation in Health IT. New England Journal of Medicine, 2016, 375, 815-817.	27.0	40
70	A countermeasure development pipeline. Annals of the New York Academy of Sciences, 2016, 1378, 58-67.	3.8	3
71	Wars2 is a determinant of angiogenesis. Nature Communications, 2016, 7, 12061.	12.8	45
72	The Future of Genetics and Genomics. Circulation, 2016, 133, 2634-2639.	1.6	35

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73	The Future of Cardiovascular Education and Training. Circulation, 2016, 133, 2734-2742.	1.6	1
74	The Future of Cardiovascular Therapeutics. Circulation, 2016, 133, 2610-2617.	1.6	22
75	The Future of Cardiovascular Biomedicine. Circulation, 2016, 133, 2601-2602.	1.6	3
76	Acute Coronary Syndrome in a 52-Year-Old Woman With Scleroderma. Circulation, 2016, 133, 2576-2582.	1.6	1
77	Opportunities for the Cardiovascular Community in the Precision Medicine Initiative. Circulation, 2016, 133, 226-231.	1.6	50
78	In vitro and in vivo reprogramming for the conduction system. Trends in Cardiovascular Medicine, 2016, 26, 21-22.	4.9	1
79	A cystineâ€knot miniprotein from tomato fruit inhibits endothelial cell migration and angiogenesis by affecting vascular endothelial growth factor receptor (VEGFR) activation and nitric oxide production. Molecular Nutrition and Food Research, 2015, 59, 2255-2266.	3.3	15
80	A New Phenotypic Lexicon for Accelerated Translation. Circulation, 2015, 131, 234-236.	1.6	2
81	Effect Size Does Matter. Circulation, 2015, 132, 1943-1945.	1.6	6
82	Caenorhabditis elegans is a useful model for anthelmintic discovery. Nature Communications, 2015, 6, 7485.	12.8	163
83	Zebrafish as tools for drug discovery. Nature Reviews Drug Discovery, 2015, 14, 721-731.	46.4	888
84	A Critical Need for Clinical Context in the Genomic Era. Circulation, 2015, 132, 992-993.	1.6	2
85	Chamber identity programs drive early functional partitioning of the heart. Nature Communications, 2015, 6, 8146.	12.8	103
86	Fusiform Aneurysms Are Associated with Aortic Root Dilatation in Patients with Subarachnoid Hemorrhage. World Neurosurgery, 2015, 84, 1681-1685.	1.3	6
87	Glucocorticoids enhance muscle endurance and ameliorate Duchenne muscular dystrophy through a defined metabolic program. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E6780-9.	7.1	71
88	Selecting causal genes from genome-wide association studies via functionally coherent subnetworks. Nature Methods, 2015, 12, 154-159.	19.0	96
89	Summarizing polygenic risks for complex diseases in a clinical whole-genome report. Genetics in Medicine, 2015, 17, 536-544.	2.4	34
90	Heart on a Plate: Histological and Functional Assessment of Isolated Adult Zebrafish Hearts Maintained in Culture. PLoS ONE, 2014, 9, e96771.	2.5	21

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91	A Clinical Approach to Inherited Premature Coronary Artery Disease. Circulation: Cardiovascular Genetics, 2014, 7, 558-564.	5.1	16
92	A novel cardiovascular decision support framework for effective clinical risk assessment. , 2014, , .		4
93	Human Kidney Disease-causing INF2 Mutations Perturb Rho/Dia Signaling in the Glomerulus. EBioMedicine, 2014, 1, 107-115.	6.1	25
94	RING Finger Protein RNF207, a Novel Regulator of Cardiac Excitation. Journal of Biological Chemistry, 2014, 289, 33730-33740.	3.4	38
95	Identification of a New Modulator of the Intercalated Disc in a Zebrafish Model of Arrhythmogenic Cardiomyopathy. Science Translational Medicine, 2014, 6, 240ra74.	12.4	222
96	Reponse to de Leeuw and Houge. American Journal of Human Genetics, 2014, 94, 154-155.	6.2	4
97	Searching for a Rosetta Stone: Genetic data and clinical patient management. Heart Rhythm, 2014, 11, 1714-1715.	0.7	0
98	Arrhythmogenic right ventricular cardiomyopathy mutations alter shear response without changes in cellâ€“cell adhesion. Cardiovascular Research, 2014, 104, 280-289.	3.8	45
99	Lysosomal dysfunction and impaired autophagy underlie the pathogenesis of amyloidogenic light chainâ€mediated cardiotoxicity. EMBO Molecular Medicine, 2014, 6, 1493-1507.	6.9	106
100	Mendelian Forms of Structural Cardiovascular Disease. Current Cardiology Reports, 2013, 15, 399.	2.9	4
101	Efficient clinical decision making by learning from missing clinical data. , 2013, , .		2
102	Fine Mapping of the 1p36 Deletion Syndrome Identifies Mutation of PRDM16 as a Cause of Cardiomyopathy. American Journal of Human Genetics, 2013, 93, 67-77.	6.2	164
103	Recent advances in in vivo screening for antiarrhythmic drugs. Expert Opinion on Drug Discovery, 2013, 8, 131-141.	5.0	9
104	Chemical and metabolomic screens identify novel biomarkers and antidotes for cyanide exposure. FASEB Journal, 2013, 27, 1928-1938.	0.5	38
105	In vivo natriuretic peptide reporter assay identifies chemical modifiers of hypertrophic cardiomyopathy signalling. Cardiovascular Research, 2012, 93, 463-470.	3.8	49
106	Systematic Approaches to Toxicology in the Zebrafish. Annual Review of Pharmacology and Toxicology, 2012, 52, 433-453.	9.4	150
107	Optical Mapping in the Developing Zebrafish Heart. Pediatric Cardiology, 2012, 33, 916-922.	1.3	13
108	Next-Generation Genome-Wide Association Studies. Circulation: Cardiovascular Genetics, 2011, 4, 334-336.	5.1	38

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109	High-resolution cardiovascular function confirms functional orthology of myocardial contractility pathways in zebrafish. Physiological Genomics, 2010, 42, 300-309.	2.3	77
110	Wnt11 patterns a myocardial electrical gradient through regulation of the L-type Ca2+ channel. Nature, 2010, 466, 874-878.	27.8	127
111	Response to Letter Regarding Article, â€œCloser Look at Genetic Testing in Long-QT Syndrome: Will DNA Diagnostics Ever Be Enough?â€. Circulation, 2010, 121, e440.	1.6	0
112	Cardiac arrhythmia:in vivoscreening in the zebrafish to overcome complexity in drug discovery. Expert Opinion on Drug Discovery, 2010, 5, 619-632.	5.0	30
113	Preface. Heart Failure Clinics, 2010, 6, xv-xvi.	2.1	0
114	Drug-Sensitized Zebrafish Screen Identifies Multiple Genes, Including GINS3 , as Regulators of Myocardial Repolarization. Circulation, 2009, 120, 553-559.	1.6	106
115	Zebrafish genetic models for arrhythmia. Progress in Biophysics and Molecular Biology, 2008, 98, 301-308.	2.9	40
116	Cardiovascular Genetics and Genomics for the Cardiologist. Circulation, 2008, 118, .	1.6	0
117	Myocardial blood flow and oxygen consumption in patients with Friedreich's ataxia prior to the onset of cardiomyopathy. Coronary Artery Disease, 2007, 18, 15-22.	0.7	14
118	Purification of hearts from zebrafish embryos. BioTechniques, 2006, 40, 278-282.	1.8	41
119	In vivo recording of adult zebrafish electrocardiogram and assessment of drug-induced QT prolongation. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H269-H273.	3.2	222
120	Notch1b and neuregulin are required for specification of central cardiac conduction tissue. Development (Cambridge), 2006, 133, 1125-1132.	2.5	136
121	High-throughput assay for small molecules that modulate zebrafish embryonic heart rate. Nature Chemical Biology, 2005, 1, 263-264.	8.0	320
122	Animal models for arrhythmias. Cardiovascular Research, 2005, 67, 426-437.	3.8	57
123	Chemical suppression of a genetic mutation in a zebrafish model of aortic coarctation. Nature Biotechnology, 2004, 22, 595-599.	17.5	368
124	Zebrafish-Based Small Molecule Discovery. Chemistry and Biology, 2003, 10, 901-908.	6.0	152
125	Drugs That Induce Repolarization Abnormalities Cause Bradycardia in Zebrafish. Circulation, 2003, 107, 1355-1358.	1.6	418
126	Dilated Cardiomyopathy and Sensorineural Hearing Loss. Circulation, 2000, 101, 1812-1818.	1.6	95

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127	Electrophysiologic Characteristics of Accessory Atrioventricular Connections in an Inherited Form of Wolff-Parkinson-White Syndrome. Journal of Cardiovascular Electrophysiology, 1999, 10, 629-635.	1.7	45
128	A gene for non-syndromic autosomal dominant progressive postlingual sensorineural hearing loss maps to chromosome 14q12-13. Human Molecular Genetics, 1996, 5, 1047-1050.	2.9	114
129	Missense Mutation in the Pore Region of HERG Causes Familial Long QT Syndrome. Circulation, 1996, 93, 1791-1795.	1.6	70
130	Mutations in the cardiac myosin binding proteinâ€“C gene on chromosome 11 cause familial hypertrophic cardiomyopathy. Nature Genetics, 1995, 11, 434-437.	21.4	540
131	A gene defect that causes conduction system disease and dilated cardiomyopathy maps to chromosome 1p1â€“1q1. Nature Genetics, 1994, 7, 546-551.	21.4	187
132	Wnt Signaling Interactor WTIP (Wilms Tumor Interacting Protein) Underlies Novel Mechanism for Cardiac Hypertrophy. Circulation Genomic and Precision Medicine, 0, , .	3.6	0