Benjamin Meder

List of Publications by Year
in descending order

127 papers	7,349 citations	57758 44 h-index	60623 81 g-index
134 all docs	134 docs citations	134 times ranked	12218 citing authors

#	Article	IF	Citations
1	Distribution of miRNA expression across human tissues. Nucleic Acids Research, 2016, 44, 3865-3877.	14.5	836
2	Atlas of the clinical genetics of human dilated cardiomyopathy. European Heart Journal, 2015, 36, 1123-1135.	2.2	456
3	A blood based 12-miRNA signature of Alzheimer disease patients. Genome Biology, 2013, 14, R78.	9.6	438
4	Toward the blood-borne miRNome of human diseases. Nature Methods, 2011, 8, 841-843.	19.0	339
5	MicroRNA signatures in total peripheral blood as novel biomarkers for acute myocardial infarction. Basic Research in Cardiology, 2011, 106, 13-23.	5.9	242
6	Assessment of myocardial deformation with cardiac magnetic resonance strain imaging improves risk stratification in patients with dilated cardiomyopathy. European Heart Journal Cardiovascular Imaging, 2015, 16, 307-315.	1.2	211
7	Alterations in cardiac DNA methylation in human dilated cardiomyopathy. EMBO Molecular Medicine, 2013, 5, 413-429.	6.9	210
8	Clinical genetics and outcome of left ventricular non-compaction cardiomyopathy. European Heart Journal, 2017, 38, 3449-3460.	2.2	168
9	Genotype-phenotype associations in dilated cardiomyopathy: meta-analysis on more than 8000 individuals. Clinical Research in Cardiology, 2017, 106, 127-139.	3.3	156
10	Targeted Next-Generation Sequencing for the Molecular Genetic Diagnostics of Cardiomyopathies. Circulation: Cardiovascular Genetics, 2011, 4, 110-122.	5.1	155
11	Epigenome-Wide Association Study Identifies Cardiac Gene Patterning and a Novel Class of Biomarkers for Heart Failure. Circulation, 2017, 136, 1528-1544.	1.6	139
12	A genome-wide association study identifies 6p21 as novel risk locus for dilated cardiomyopathy. European Heart Journal, 2014, 35, 1069-1077.	2.2	137
13	The Symptom Complex of Familial Sinus Node Dysfunction and Myocardial Noncompaction Is Associated With Mutations in the HCN4 Channel. Journal of the American College of Cardiology, 2014, 64, 757-767.	2.8	128
14	Catecholamine-Dependent β-Adrenergic Signaling in a Pluripotent Stem Cell Model of Takotsubo Cardiomyopathy. Journal of the American College of Cardiology, 2017, 70, 975-991.	2.8	124
15	Comprehensive analysis of microRNA profiles in multiple sclerosis including next-generation sequencing. Multiple Sclerosis Journal, 2014, 20, 295-303.	3.0	115
16	Mavacamten Favorably Impacts Cardiac Structure in Obstructive Hypertrophic Cardiomyopathy. Circulation, 2021, 143, 606-608.	1.6	109
17	Multivariate miRNA signatures as biomarkers for non-ischaemic systolic heart failure. European Heart Journal, 2013, 34, 2812-2823.	2.2	99
18	miRTargetLinkâ€"miRNAs, Genes and Interaction Networks. International Journal of Molecular Sciences, 2016, 17, 564.	4.1	99

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19	Clinical outcomes associated with sarcomere mutations in hypertrophic cardiomyopathy: a meta-analysis on 7675 individuals. Clinical Research in Cardiology, 2018, 107, 30-41.	3.3	99
20	A mutation in the glutamate-rich region of RNA-binding motif protein 20 causes dilated cardiomyopathy through missplicing of titin and impaired Frank–Starling mechanism. Cardiovascular Research, 2016, 112, 452-463.	3.8	97
21	Regional Variation in <i>RBM20</i> Causes a Highly Penetrant Arrhythmogenic Cardiomyopathy. Circulation: Heart Failure, 2019, 12, e005371.	3.9	96
22	Complex roads from genotype to phenotype in dilated cardiomyopathy: scientific update from the Working Group of Myocardial Function of the European Society of Cardiology. Cardiovascular Research, 2018, 114, 1287-1303.	3.8	91
23	Immune system-mediated atherosclerosis caused by deficiency of long non-coding RNA<i>MALAT1</i>in ApoEâˆ’/âˆ’mice. Cardiovascular Research, 2019, 115, 302-314.	3.8	89
24	Long noncoding RNA NEAT1 modulates immune cell functions and is suppressed in early onset myocardial infarction patients. Cardiovascular Research, 2019, 115, 1886-1906.	3.8	86
25	Influence of the Confounding Factors Age and Sex on MicroRNA Profiles from Peripheral Blood. Clinical Chemistry, 2014, 60, 1200-1208.	3.2	84
26	Severe DCM phenotype of patient harboring RBM20 mutation S635A can be modeled by patient-specific induced pluripotent stem cell-derived cardiomyocytes. Journal of Molecular and Cellular Cardiology, 2017, 113, 9-21.	1.9	84
27	Evaluating the Use of Circulating MicroRNA Profiles for Lung Cancer Detection in Symptomatic Patients. JAMA Oncology, 2020, 6, 714.	7.1	84
28	Biomarker Changes after Strenuous Exercise Can Mimic Pulmonary Embolism and Cardiac Injury—A Metaanalysis of 45 Studies. Clinical Chemistry, 2015, 61, 1246-1255.	3.2	81
29	The current role of next-generation DNA sequencing in routine care of patients with hereditary cardiovascular conditions: a viewpoint paper of the European Society of Cardiology working group on myocardial and pericardial diseases and members of the European Society of Human Genetics. European Heart Journal, 2015, 36, 1367-1370.	2.2	75
30	miRNAs can be generally associated with human pathologies as exemplified for miR-144*. BMC Medicine, 2014, 12, 224.	5.5	74
31	Natural genetic variation of the cardiac transcriptome in non-diseased donors and patients with dilated cardiomyopathy. Genome Biology, 2017, 18, 170.	8.8	70
32	Towards Personalized Cardiology: Multi-Scale Modeling of the Failing Heart. PLoS ONE, 2015, 10, e0134869.	2.5	65
33	Web-based NGS data analysis using miRMaster: a large-scale meta-analysis of human miRNAs. Nucleic Acids Research, 2017, 45, 8731-8744.	14.5	63
34	Next-generation sequencing identifies novel microRNAs in peripheral blood of lung cancer patients. Molecular BioSystems, 2011, 7, 3187.	2.9	62
35	Identification and Functional Characterization of Hypoxia-Induced Endoplasmic Reticulum Stress Regulating lncRNA (HypERlnc) in Pericytes. Circulation Research, 2017, 121, 368-375.	4.5	61
36	Clinical and genetic insights into non-compaction: a meta-analysis and systematic review on 7598 individuals. Clinical Research in Cardiology, 2019, 108, 1297-1308.	3.3	61

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37	The human miRNA repertoire of different blood compounds. BMC Genomics, 2014, 15, 474.	2.8	59
38	Bias in High-Throughput Analysis of miRNAs and Implications for Biomarker Studies. Analytical Chemistry, 2016, 88, 2088-2095.	6.5	57
39	A Single Serine in the Carboxyl Terminus of Cardiac Essential Myosin Light Chain-1 Controls Cardiomyocyte Contractility In Vivo. Circulation Research, 2009, 104, 650-659.	4.5	56
40	Validating Alzheimer's disease micro RNAs using nextâ€generation sequencing. Alzheimer's and Dementia, 2016, 12, 565-576.	0.8	53
41	Refining Diagnostic MicroRNA Signatures by Whole-miRNome Kinetic Analysis in Acute Myocardial Infarction. Clinical Chemistry, 2013, 59, 410-418.	3.2	52
42	Prioritizing and selecting likely novel miRNAs from NGS data. Nucleic Acids Research, 2016, 44, e53-e53.	14.5	52
43	Left ventricular long axis strain: a new prognosticator in non-ischemic dilated cardiomyopathy?. Journal of Cardiovascular Magnetic Resonance, 2016, 18, 36.	3.3	51
44	Improvements of Procedural Results With a Newâ€Generation Selfâ€Expanding Transfemoral Aortic Valve Prosthesis in Comparison to the Oldâ€Generation Device. Journal of Interventional Cardiology, 2017, 30, 72-78.	1.2	48
45	Common diseases alter the physiological age-related blood microRNA profile. Nature Communications, 2020, 11, 5958.	12.8	46
46	Right into the heart of microRNA-133a: Figure 1.. Genes and Development, 2008, 22, 3227-3231.	5.9	43
47	Genomic structural variations lead to dysregulation of important coding and nonâ€coding RNA species in dilated cardiomyopathy. EMBO Molecular Medicine, 2018, 10, 107-120.	6.9	43
48	Data-driven estimation of cardiac electrical diffusivity from 12-lead ECG signals. Medical Image Analysis, 2014, 18, 1361-1376.	11.6	42
49	Age-Related Variations in Takotsubo Syndrome. Journal of the American College of Cardiology, 2020, 75, 1869-1877.	2.8	42
50	PINCH Proteins Regulate Cardiac Contractility by Modulating Integrin-Linked Kinase-Protein Kinase B Signaling. Molecular and Cellular Biology, 2011, 31, 3424-3435.	2.3	41
51	iPSC Modeling of RBM20-Deficient DCM Identifies Upregulation of RBM20 as a Therapeutic Strategy. Cell Reports, 2020, 32, 108117.	6.4	40
52	Familial Recurrent Myocarditis Triggered by Exercise in Patients With a Truncating Variant of the Desmoplakin Gene. Journal of the American Heart Association, 2020, 9, e015289.	3.7	39
53	miRTrail - a comprehensive webserver for analyzing gene and miRNA patterns to enhance the understanding of regulatory mechanisms in diseases. BMC Bioinformatics, 2012, 13, 36.	2.6	36
54	Next-Generation Sequencing: From Understanding Biology to Personalized Medicine. Biology, 2013, 2, 378-398.	2.8	35

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55	miRNAs and sports: tracking training status and potentially confounding diagnoses. Journal of Translational Medicine, 2016, 14, 219.	4.4	31
56	A human cell atlas of the pressure-induced hypertrophic heart. , 2022, 1, 174-185.		30
57	MicroRNA In Vitro Diagnostics Using Immunoassay Analyzers. Clinical Chemistry, 2015, 61, 600-607.	3.2	29
58	New insights into the genetics of glioblastoma multiforme by familial exome sequencing. Oncotarget, 2015, 6, 5918-5931.	1.8	28
59	Reconstitution of defective protein trafficking rescues Long-QT syndrome in zebrafish. Biochemical and Biophysical Research Communications, 2011, 408, 218-224.	2.1	27
60	Next-generation sequencing identifies altered whole blood microRNAs in neuromyelitis optica spectrum disorder which may permit discrimination from multiple sclerosis. Journal of Neuroinflammation, 2015, 12, 196.	7.2	27
61	Dual Functional States of R406W-Desmin Assembly Complexes Cause Cardiomyopathy With Severe Intercalated Disc Derangement in Humans and in Knock-In Mice. Circulation, 2020, 142, 2155-2171.	1.6	27
62	Silencing the CSF-1 Axis Using Nanoparticle Encapsulated siRNA Mitigates Viral and Autoimmune Myocarditis. Frontiers in Immunology, 2018, 9, 2303.	4.8	26
63	Nucleoside Diphosphate Kinase-C Suppresses cAMP Formation in Human Heart Failure. Circulation, 2017, 135, 881-897.	1.6	24
64	A high-resolution map of the human small non-coding transcriptome. Bioinformatics, 2018, 34, 1621-1628.	4.1	24
65	Single-molecule, full-length transcript isoform sequencing reveals disease-associated RNA isoforms in cardiomyocytes. Nature Communications, 2021, 12, 4203.	12.8	24
66	Comparative Transcriptomics of Immune Checkpoint Inhibitor Myocarditis Identifies Guanylate Binding Protein 5 and 6 Dysregulation. Cancers, 2021, 13, 2498.	3.7	23
67	JunB-CBFî² signaling is essential to maintain sarcomeric Z-disc structure and when defective leads to heart failure. Journal of Cell Science, 2010, 123, 2613-2620.	2.0	22
68	Influence of Next-Generation Sequencing and Storage Conditions on miRNA Patterns Generated from PAXgene Blood. Analytical Chemistry, 2015, 87, 8910-8916.	6.5	22
69	Involvement of BAG3 and HSPB7 loci in various etiologies of systolic heart failure: Results of a European collaboration assembling more than 2000 patients. International Journal of Cardiology, 2015, 189, 105-107.	1.7	22
70	Deep Characterization of Circular RNAs from Human Cardiovascular Cell Models and Cardiac Tissue. Cells, 2020, 9, 1616.	4.1	22
71	Post cardiac injury syndrome after initially uncomplicated CRT-D implantation: a case report and a systematic review. Clinical Research in Cardiology, 2014, 103, 781-789.	3.3	21
72	Myoscape controls cardiac calcium cycling and contractility via regulation of L-type calcium channel surface expression. Nature Communications, 2016, 7, 11317.	12.8	20

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73	A self-taught artificial agent for multi-physics computational model personalization. Medical Image Analysis, 2016, 34, 52-64.	11.6	20
74	Predicting sustained ventricular arrhythmias in dilated cardiomyopathy: a meta‐analysis and systematic review. ESC Heart Failure, 2020, 7, 1430-1441.	3.1	20
75	Energy Metabolites as Biomarkers in Ischemic and Dilated Cardiomyopathy. International Journal of Molecular Sciences, 2021, 22, 1999.	4.1	20
76	RBM20-Related Cardiomyopathy: Current Understanding and Future Options. Journal of Clinical Medicine, 2021, 10, 4101.	2.4	20
77	So rare we need to hunt for them: reframing the ethical debate on incidental findings. Genome Medicine, 2015, 7, 83.	8.2	19
78	The prognostic value of right ventricular long axis strain in non-ischaemic dilated cardiomyopathies using standard cardiac magnetic resonance imaging. European Radiology, 2017, 27, 3913-3923.	4.5	18
79	Impact of Atrial Fibrillation on Outcome in Takotsubo Syndrome: Data From the International Takotsubo Registry. Journal of the American Heart Association, 2021, 10, e014059.	3.7	18
80	miRNAs in ancient tissue specimens of the Tyrolean Iceman. Molecular Biology and Evolution, 2017, 34, msw291.	8.9	17
81	RNA splicing regulated by RBFOX1 is essential for cardiac function in zebrafish. Journal of Cell Science, 2015, 128, 3030-40.	2.0	16
82	Machine learning-based risk prediction of intrahospital clinical outcomes in patients undergoing TAVI. Clinical Research in Cardiology, 2021, 110, 343-356.	3.3	16
83	Double-Stranded Ligation Assay for the Rapid Multiplex Quantification of MicroRNAs. Analytical Chemistry, 2015, 87, 12104-12111.	6.5	15
84	Deep characterization of blood cell miRNomes by NGS. Cellular and Molecular Life Sciences, 2016, 73, 3169-3181.	5.4	15
85	Non-invasive imaging as the cornerstone of cardiovascular precision medicine. European Heart Journal Cardiovascular Imaging, 2022, 23, 465-475.	1.2	15
86	Left Ventricular Biopsy in the Diagnosis of Myocardial Diseases. Circulation, 2018, 137, 993-995.	1.6	14
87	Prevalence and clinical outcomes of dystrophin‐associated dilated cardiomyopathy without severe skeletal myopathy. European Journal of Heart Failure, 2021, 23, 1276-1286.	7.1	14
88	Clinical and Genetic Investigations of 109 Index Patients With Dilated Cardiomyopathy and 445 of Their Relatives. Circulation: Heart Failure, 2020, 13, e006701.	3.9	12
89	Epigenetic Regulation of Alternative mRNA Splicing in Dilated Cardiomyopathy. Journal of Clinical Medicine, 2020, 9, 1499.	2.4	11
90	miFRame: analysis and visualization of miRNA sequencing data in neurological disorders. Journal of Translational Medicine, 2015, 13, 224.	4.4	10

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91	Genetic Reduction in Left Ventricular Protein Kinase C-Î± and Adverse Ventricular Remodeling in Human Subjects. Circulation Genomic and Precision Medicine, 2018, 11, e001901.	3.6	10
92	The chameleon of cardiology: cardiac sarcoidosis before and after heart transplantation. ESC Heart Failure, 2020, 7, 692-696.	3.1	10
93	Generation of pluripotent stem cell lines and CRISPR/Cas9 modified isogenic controls from a patient with dilated cardiomyopathy harboring a RBM20 p.R634W mutation. Stem Cell Research, 2020, 47, 101901.	0.7	10
94	Doxorubicin induces cardiotoxicity in a pluripotent stem cell model of aggressive B cell lymphoma cancer patients. Basic Research in Cardiology, 2022, 117, 13.	5.9	10
95	BALL-SNP: combining genetic and structural information to identify candidate non-synonymous single nucleotide polymorphisms. Genome Medicine, 2015, 7, 65.	8.2	9
96	The Role of Quality Control in Targeted Next-generation Sequencing Library Preparation. Genomics, Proteomics and Bioinformatics, 2016, 14, 200-206.	6.9	9
97	A novel risk model for predicting potentially life-threatening arrhythmias in non-ischemic dilated cardiomyopathy (DCM-SVA risk). International Journal of Cardiology, 2021, 339, 75-82.	1.7	9
98	Determined to Failâ€"the Role of Genetic Mechanisms in Heart Failure. Current Heart Failure Reports, 2015, 12, 333-338.	3.3	8
99	Pathway-based variant enrichment analysis on the example of dilated cardiomyopathy. Human Genetics, 2016, 135, 31-40.	3.8	8
100	Unidimensional Longitudinal Strain: A Simple Approach for the Assessment of Longitudinal Myocardial Deformation by Echocardiography. Journal of the American Society of Echocardiography, 2018, 31, 733-742.	2.8	8
101	Prognostic impact of acute pulmonary triggers in patients with takotsubo syndrome: new insights from the International Takotsubo Registry. ESC Heart Failure, 2021, 8, 1924-1932.	3.1	8
102	Fast Data-Driven Calibration of a Cardiac Electrophysiology Model from Images and ECG. Lecture Notes in Computer Science, 2013, 16, 1-8.	1.3	8
103	Pathophysiological background and prognostic implication of systolic aortic root motion in non-ischemic dilated cardiomyopathy. Scientific Reports, 2019, 9, 3866.	3.3	7
104	Missense Variant E1295K of Sodium Channel SCN5A Associated With Recurrent Ventricular Fibrillation and Myocardial Inflammation. JACC: Case Reports, 2022, 4, 280-286.	0.6	7
105	microRNA assays for acute coronary syndromes. Diagnosis, 2016, 3, 183-188.	1.9	6
106	Personalized Computer Simulation of Diastolic Function in Heart Failure. Genomics, Proteomics and Bioinformatics, 2016, 14, 244-252.	6.9	6
107	microRNA neural networks improve diagnosis of acute coronary syndrome (ACS). Journal of Molecular and Cellular Cardiology, 2021, 151, 155-162.	1.9	6
108	Periprocedural antibiotic treatment in transvascular aortic valve replacement. Journal of Interventional Cardiology, 2018, 31, 885-890.	1.2	5

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109	ANK2 functionally interacts with KCNH2 aggravating long QT syndrome in a double mutation carrier. Biochemical and Biophysical Research Communications, 2019, 512, 845-851.	2.1	5
110	Targeted next-generation sequencing: the clinician's stethoscope for genetic disorders. Personalized Medicine, 2014, 11, 581-592.	1.5	4
111	Postcardiac injury syndrome after cardiac implantable electronic device implantation. Herz, 2020, 45, 696-702.	1.1	4
112	SLM2 Is A Novel Cardiac Splicing Factor Involved in Heart Failure due to Dilated Cardiomyopathy. Genomics, Proteomics and Bioinformatics, 2022, 20, 129-146.	6.9	4
113	Marathon-Induced Cardiac Strain as Model for the Evaluation of Diagnostic microRNAs for Acute Myocardial Infarction. Journal of Clinical Medicine, 2022, 11, 5.	2.4	4
114	Targeted Analysis of circRNA Expression in Patient Samples by Lexo-circSeq. Frontiers in Molecular Biosciences, 0, 9, .	3.5	4
115	Automatic image-to-model framework for patient-specific electromechanical modeling of the heart. , 2014, , .		3
116	Controlling my genome with my smartphone: first clinical experiences of the PROMISE system. Clinical Research in Cardiology, 2021, , 1.	3.3	3
117	Computational Cardiology — A New Discipline of Translational Research. Genomics, Proteomics and Bioinformatics, 2016, 14, 177-178.	6.9	2
118	From Single Variants to Protein Cascades. Journal of Biological Chemistry, 2016, 291, 1582-1590.	3.4	2
119	Two Hearts at Risk. JACC: Case Reports, 2020, 2, 139-144.	0.6	2
120	Cardiac Myxoma in a Patient With Hypertrophic Cardiomyopathy. JACC: Case Reports, 2020, 2, 378-383.	0.6	2
121	Pulmonary vein isolation treats symptomatic AF in a patient with Lamin A/C mutation: case report and review of the literature. Clinical Research in Cardiology, 2020, 109, 1070-1075.	3.3	1
122	The Patient as Genomic Data Manager - Evaluation of the PROMISE App. Studies in Health Technology and Informatics, 2020, 270, 1061-1065.	0.3	1
123	Quantification of collateral artery growth by automated fluorescent microsphere perfusion. International Journal of Cardiology, 2012, 161, 88-92.	1.7	0
124	Prevalence and relevance of impaired left ventricular function in chronic moderate regurgitation of native aortic valves. Acta Cardiologica, 2020, 75, 613-620.	0.9	0
125	Back to the vinyl age: a narrative report of a total computer blackout at a large university medical centre. European Heart Journal Digital Health, 2021, 2, 167-170.	1.7	0
126	Rare Case of Selenite Poisoning Manifesting as Non–ST-Segment Elevation Myocardial Infarction. JACC: Case Reports, 2021, 3, 811-815.	0.6	0

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127	An Apple Watch Dashboard for HiGHmed Heart Insufficency Patients. Studies in Health Technology and Informatics, 2021, 283, 146-155.	0.3	0