

# Howard A Rockman

## List of Publications by Year in descending order

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108  
papers

10,507  
citations

31976

53  
h-index

32842

100  
g-index

110  
all docs

110  
docs citations

110  
times ranked

9520  
citing authors

#	ARTICLE	IF	CITATIONS
1	Seven-transmembrane-spanning receptors and heart function. <i>Nature</i> , 2002, 415, 206-212.	27.8	862
2	Targeting the Receptor-Gq Interface to Inhibit in Vivo Pressure Overload Myocardial Hypertrophy. <i>Science</i> , 1998, 280, 574-577.	12.6	442
3	Physiological effects of inverse agonists in transgenic mice with myocardial overexpression of the $\beta_2$ -adrenoceptor. <i>Nature</i> , 1995, 374, 272-276.	27.8	431
4	$\beta_2$ -Arrestin-mediated $\beta_1$ -adrenergic receptor transactivation of the EGFR confers cardioprotection. <i>Journal of Clinical Investigation</i> , 2007, 117, 2445-2458.	8.2	405
5	Animal Models of Heart Failure. <i>Circulation Research</i> , 2012, 111, 131-150.	4.5	378
6	Genetic Alterations That Inhibit In Vivo Pressure-Overload Hypertrophy Prevent Cardiac Dysfunction Despite Increased Wall Stress. <i>Circulation</i> , 2002, 105, 85-92.	1.6	352
7	Transthoracic Echocardiography in Models of Cardiac Disease in the Mouse. <i>Circulation</i> , 1996, 94, 1109-1117.	1.6	299
8	Regulation of $\beta_2$ -Adrenergic Receptor Signaling by S-Nitrosylation of G-Protein-Coupled Receptor Kinase 2. <i>Cell</i> , 2007, 129, 511-522.	28.9	274
9	Mechanism of $\beta_2$ -Adrenergic Receptor Desensitization in Cardiac Hypertrophy Is Increased $\beta_2$ -Adrenergic Receptor Kinase. <i>Journal of Biological Chemistry</i> , 1997, 272, 17223-17229.	3.4	241
10	$\beta_2$ -Blockers alprenolol and carvedilol stimulate $\beta_2$ -arrestin-mediated EGFR transactivation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 14555-14560.	7.1	241
11	Dual Inhibition of $\beta_2$ -Adrenergic and Angiotensin II Receptors by a Single Antagonist. <i>Circulation</i> , 2003, 108, 1611-1618.	1.6	236
12	From The Cover: <i>Drosophila</i> as a model for the identification of genes causing adult human heart disease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 1394-1399.	7.1	226
13	Intermittent pressure overload triggers hypertrophy-independent cardiac dysfunction and vascular rarefaction. <i>Journal of Clinical Investigation</i> , 2006, 116, 1547-1560.	8.2	220
14	Lethal Cardiomyopathy in Mice Lacking Transferrin Receptor in the Heart. <i>Cell Reports</i> , 2015, 13, 533-545.	6.4	213
15	beta-Arrestin2-mediated inotropic effects of the angiotensin II type 1A receptor in isolated cardiac myocytes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 16284-16289.	7.1	208
16	TRPC1 Channels Are Critical for Hypertrophic Signaling in the Heart. <i>Circulation Research</i> , 2009, 105, 1023-1030.	4.5	202
17	G-Protein-Coupled Receptors in Heart Disease. <i>Circulation Research</i> , 2018, 123, 716-735.	4.5	184
18	$G\beta\gamma$ -dependent Phosphoinositide 3-Kinase Activation in Hearts with in Vivo Pressure Overload Hypertrophy. <i>Journal of Biological Chemistry</i> , 2000, 275, 4693-4698.	3.4	183

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19	Phosphoinositide 3-kinase regulates $\beta_2$ -adrenergic receptor endocytosis by AP-2 recruitment to the receptor/ $\beta_2$ -arrestin complex. <i>Journal of Cell Biology</i> , 2002, 158, 563-575.	5.2	178
20	Circulating Exosomes Induced by Cardiac Pressure Overload Contain Functional Angiotensin II Type 1 Receptors. <i>Circulation</i> , 2015, 131, 2120-2130.	1.6	177
21	Manifold roles of $\beta_2$ -arrestins in GPCR signaling elucidated with siRNA and CRISPR/Cas9. <i>Science Signaling</i> , 2018, 11, .	3.6	169
22	Agonist-dependent Recruitment of Phosphoinositide 3-Kinase to the Membrane by $\beta_2$ -Adrenergic Receptor Kinase 1. <i>Journal of Biological Chemistry</i> , 2001, 276, 18953-18959.	3.4	168
23	Cardiac GPCRs: GPCR signaling in healthy and failing hearts. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2007, 1768, 1006-1018.	2.6	165
24	$\beta_2$ -Arrestin-Dependent Biased Agonism of the Angiotensin Receptor Induced by Mechanical Stress. <i>Science Signaling</i> , 2010, 3, ra46.	3.6	163
25	Control of Myocardial Contractile Function by the Level of $\beta_2$ -Adrenergic Receptor Kinase 1 in Gene-targeted Mice. <i>Journal of Biological Chemistry</i> , 1998, 273, 18180-18184.	3.4	153
26	$\beta_2$ -Arrestin-Dependent activation of Ca <sup>2+</sup> /calmodulin kinase II after $\beta_2$ -adrenergic receptor stimulation. <i>Journal of Cell Biology</i> , 2010, 189, 573-587.	5.2	142
27	Transgenic Mice with Cardiac Overexpression of $\beta_1$ -Adrenergic Receptors. <i>Journal of Biological Chemistry</i> , 1997, 272, 21253-21259.	3.4	140
28	Protein Kinase A and G Protein-coupled Receptor Kinase Phosphorylation Mediates $\beta_1$ -Adrenergic Receptor Endocytosis through Different Pathways. <i>Journal of Biological Chemistry</i> , 2003, 278, 35403-35411.	3.4	140
29	Cardiac Overexpression of a G <sub>q</sub> Inhibitor Blocks Induction of Extracellular Signal-Regulated Kinase and c-Jun NH <sub>2</sub> -Terminal Kinase Activity in In Vivo Pressure Overload. <i>Circulation</i> , 2001, 103, 1453-1458.	1.6	130
30	Protein kinase activity of phosphoinositide 3-kinase regulates $\beta_2$ -adrenergic receptor endocytosis. <i>Nature Cell Biology</i> , 2005, 7, 785-796.	10.3	125
31	Inhibition of receptor-localized PI3K preserves cardiac $\beta_2$ -adrenergic receptor function and ameliorates pressure overload heart failure. <i>Journal of Clinical Investigation</i> , 2003, 112, 1067-1079.	8.2	117
32	Defective $\beta_2$ -Adrenergic Receptor Signaling Precedes the Development of Dilated Cardiomyopathy in Transgenic Mice with Calsequestrin Overexpression. <i>Journal of Biological Chemistry</i> , 1999, 274, 22251-22256.	3.4	113
33	Cellular and functional defects in a mouse model of heart failure. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2000, 279, H3101-H3112.	3.2	108
34	$\beta_2$ -Arrestin-biased AT <sub>1</sub> R stimulation promotes cell survival during acute cardiac injury. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2012, 303, H1001-H1010.	3.2	105
35	Important role of endogenous norepinephrine and epinephrine in the development of in vivo pressure-overload cardiac hypertrophy. <i>Journal of the American College of Cardiology</i> , 2001, 38, 876-882.	2.8	94
36	$\beta_2$ -Arrestin Mediates $\beta_1$ -Adrenergic Receptor-Epidermal Growth Factor Receptor Interaction and Downstream Signaling. <i>Journal of Biological Chemistry</i> , 2009, 284, 20375-20386.	3.4	92

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37	When 7 transmembrane receptors are not G protein-coupled receptors. <i>Journal of Clinical Investigation</i> , 2005, 115, 2971-2974.	8.2	88
38	Augmentation of Cardiac Contractility Mediated by the Human $\beta_3$ -Adrenergic Receptor Overexpressed in the Hearts of Transgenic Mice. <i>Circulation</i> , 2001, 104, 2485-2491.	1.6	85
39	$\beta_1$ -Adrenergic receptors stimulate cardiac contractility and CaMKII activation in vivo and enhance cardiac dysfunction following myocardial infarction. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2009, 297, H1377-H1386.	3.2	85
40	G $\beta$ i is required for carvedilol-induced $\beta_1$ adrenergic receptor $\beta$ -arrestin biased signaling. <i>Nature Communications</i> , 2017, 8, 1706.	12.8	83
41	Network integration of the adrenergic system in cardiac hypertrophy. <i>Cardiovascular Research</i> , 2004, 63, 391-402.	3.8	81
42	$\beta$ -Arrestin: A signaling molecule and potential therapeutic target for heart failure. <i>Journal of Molecular and Cellular Cardiology</i> , 2011, 51, 534-541.	1.9	79
43	Restoration of $\beta$ -Adrenergic Receptor Signaling and Contractile Function in Heart Failure by Disruption of the $\beta$ ARK1/Phosphoinositide 3-Kinase Complex. <i>Circulation</i> , 2005, 111, 2579-2587.	1.6	72
44	Functional Selectivity in Adrenergic and Angiotensin Signaling Systems. <i>Molecular Pharmacology</i> , 2010, 78, 983-992.	2.3	71
45	Differential myocardial gene expression in the development and rescue of murine heart failure. <i>Physiological Genomics</i> , 2003, 15, 105-114.	2.3	70
46	Role of $\beta$ -adrenergic receptor signaling and desensitization in heart failure: new concepts and prospects for treatment. <i>Expert Review of Cardiovascular Therapy</i> , 2006, 4, 417-432.	1.5	70
47	Biased G Protein-Coupled Receptor Signaling. <i>Circulation</i> , 2018, 137, 2315-2317.	1.6	69
48	Level of $\beta$ -Adrenergic Receptor Kinase 1 Inhibition Determines Degree of Cardiac Dysfunction After Chronic Pressure Overload-Induced Heart Failure. <i>Circulation</i> , 2005, 111, 591-597.	1.6	65
49	Regulation of myocardial $\beta$ ARK1 expression in catecholamine-induced cardiac hypertrophy in transgenic mice overexpressing $\beta_1$ -adrenergic receptors. <i>Journal of the American College of Cardiology</i> , 2001, 38, 534-540.	2.8	62
50	The two-pore domain potassium channel TREK-1 mediates cardiac fibrosis and diastolic dysfunction. <i>Journal of Clinical Investigation</i> , 2018, 128, 4843-4855.	8.2	62
51	Reduced life span with heart and muscle dysfunction in <i>Drosophila</i> sarcoglycan mutants. <i>Human Molecular Genetics</i> , 2007, 16, 2933-2943.	2.9	61
52	JNK1 is required to preserve cardiac function in the early response to pressure overload. <i>Biochemical and Biophysical Research Communications</i> , 2006, 343, 1060-1066.	2.1	60
53	$\beta$ -Arrestin1-Biased $\beta_1$ -Adrenergic Receptor Signaling Regulates MicroRNA Processing. <i>Circulation Research</i> , 2014, 114, 833-844.	4.5	60
54	Allosteric Modulation of $\beta$ -Arrestin-biased Angiotensin II Type 1 Receptor Signaling by Membrane Stretch. <i>Journal of Biological Chemistry</i> , 2014, 289, 28271-28283.	3.4	55

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55	Drosophila, Genetic Screens, and Cardiac Function. <i>Circulation Research</i> , 2011, 109, 794-806.	4.5	51
56	Physiologic and cardiac roles of $\beta^2$ -arrestins. <i>Journal of Molecular and Cellular Cardiology</i> , 2009, 46, 300-308.	1.9	50
57	Targeted Inhibition of $\beta^2$ -Adrenergic Receptor Kinase-1 Associated Phosphoinositide-3 Kinase Activity Preserves $\beta^2$ -Adrenergic Receptor Signaling and Prolongs Survival in Heart Failure Induced by Calsequestrin Overexpression. <i>Journal of the American College of Cardiology</i> , 2005, 45, 1862-1870.	2.8	48
58	Enhanced Contractility and Decreased $\beta^2$ -Adrenergic Receptor Kinase-1 in Mice Lacking Endogenous Norepinephrine and Epinephrine. <i>Circulation</i> , 1999, 99, 2702-2707.	1.6	46
59	Beta-Arrestin-Mediated Signaling in the Heart. <i>Circulation Journal</i> , 2008, 72, 1725-1729.	1.6	46
60	$\beta^2$ -Arrestin mediates the Frank-Starling mechanism of cardiac contractility. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 14426-14431.	7.1	46
61	Gene Deletion Screen for Cardiomyopathy in Adult Drosophila Identifies a New Notch Ligand. <i>Circulation Research</i> , 2010, 106, 1233-1243.	4.5	43
62	Dilated cardiomyopathy in transgenic mice expressing a mutant A subunit of protein phosphatase 2A. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2000, 279, H1307-H1318.	3.2	41
63	Role of Phosphoinositide 3-Kinase in Cardiac Function and Heart Failure. <i>Trends in Cardiovascular Medicine</i> , 2003, 13, 206-212.	4.9	41
64	G Protein-coupled Receptor Biased Agonism. <i>Journal of Cardiovascular Pharmacology</i> , 2016, 67, 193-202.	1.9	41
65	Mechanoactivation of the angiotensin II type 1 receptor induces $\beta^2$ -arrestin-biased signaling through G12 coupling. <i>Journal of Cellular Biochemistry</i> , 2018, 119, 3586-3597.	2.6	39
66	$\beta^2$ -Adrenergic axis and heart disease. <i>Trends in Genetics</i> , 2001, 17, S44-S49.	6.7	38
67	$\beta^2$ -Arrestin mediates oxytocin receptor signaling, which regulates uterine contractility and cellular migration. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2011, 300, E468-E477.	3.5	37
68	$\beta^2$ -arrestin 1 regulates $\beta^2$ -adrenergic receptor-mediated skeletal muscle hypertrophy and contractility. <i>Skeletal Muscle</i> , 2018, 8, 39.	4.2	37
69	Reversal of cardiac remodeling by modulation of adrenergic receptors: a new frontier in heart failure. <i>Current Opinion in Cardiology</i> , 2007, 22, 443-449.	1.8	35
70	Synthetic nanobodies as angiotensin receptor blockers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 20284-20291.	7.1	35
71	Multiple quantitative trait loci modify the heart failure phenotype in murine cardiomyopathy. <i>Human Molecular Genetics</i> , 2003, 12, 3097-3107.	2.9	32
72	Competitive displacement of phosphoinositide 3-kinase from $\beta^2$ -adrenergic receptor kinase-1 improves postinfarction adverse myocardial remodeling. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2006, 291, H1754-H1760.	3.2	29

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73	Increased myocardial contractility and enhanced exercise function in transgenic mice overexpressing either adenylyl cyclase 5 or 8. <i>Basic Research in Cardiology</i> , 2008, 103, 22-30.	5.9	26
74	$\beta$ -Arrestin <sup>2</sup> -Biased Allosteric Modulator Potentiates Carvedilol-Stimulated $\beta$ -Adrenergic Receptor Cardioprotection. <i>Molecular Pharmacology</i> , 2021, 100, 568-579.	2.3	24
75	Left Ventricular Functional Assessment in Mice: Feasibility of High Spatial and Temporal Resolution ECG-gated Blood Pool SPECT. <i>Radiology</i> , 2007, 245, 440-448.	7.3	23
76	Cardiomyopathy Is Associated with Ribosomal Protein Gene Haplo-Insufficiency in <i>Drosophila melanogaster</i> . <i>Genetics</i> , 2011, 189, 861-870.	2.9	23
77	G protein-coupled receptor signaling: transducers and effectors. <i>American Journal of Physiology - Cell Physiology</i> , 2022, 323, C731-C748.	4.6	22
78	Cardiac hypertrophy and altered $\beta$ -adrenergic signaling in transgenic mice that express the amino terminus of $\beta$ -ARK1. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2003, 285, H2201-H2211.	3.2	21
79	Phosphorylation of Src by phosphoinositide 3-kinase regulates beta-adrenergic receptor-mediated EGFR transactivation. <i>Cellular Signalling</i> , 2016, 28, 1580-1592.	3.6	21
80	$\beta$ -adrenergic receptor desensitization in cardiac hypertrophy and heart failure. <i>Cell Biochemistry and Biophysics</i> , 1999, 31, 321-329.	1.8	20
81	The $\beta$ -arrestin-biased $\beta$ -adrenergic receptor blocker carvedilol enhances skeletal muscle contractility. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 12435-12443.	7.1	19
82	$\beta$ -Arrestin <sup>2</sup> -Biased Angiotensin II Receptor Agonists for COVID-19. <i>Circulation</i> , 2020, 142, 318-320.	1.6	19
83	The role of $\beta$ -arrestin2-dependent signaling in thoracic aortic aneurysm formation in a murine model of Marfan syndrome. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2015, 309, H1516-H1527.	3.2	17
84	Mdm2 regulates cardiac contractility by inhibiting GRK2-mediated desensitization of $\beta$ -adrenergic receptor signaling. <i>JCI Insight</i> , 2017, 2, .	5.0	17
85	The deubiquitinase ubiquitin <sup>-</sup> specific protease 20 is a positive modulator of myocardial $\beta$ -adrenergic receptor expression and signaling. <i>Journal of Biological Chemistry</i> , 2019, 294, 2500-2518.	3.4	17
86	Sensing heart stress. <i>Nature Medicine</i> , 2003, 9, 19-20.	30.7	16
87	Targeted inhibition of phosphoinositide 3-kinase activity as a novel strategy to normalize $\beta$ -adrenergic receptor function in heart failure. <i>Vascular Pharmacology</i> , 2006, 45, 77-85.	2.1	16
88	A murine model of increased coronary sinus pressure induces myocardial edema with cardiac lymphatic dilation and fibrosis. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2020, 318, H895-H907.	3.2	11
89	Mapping Angiotensin II Type 1 Receptor-Biased Signaling Using Proximity Labeling and Proteomics Identifies Diverse Actions of Biased Agonists. <i>Journal of Proteome Research</i> , 2021, 20, 3256-3267.	3.7	11
90	Decreased beta-adrenergic responsiveness following hypertrophy occurs only in cardiomyocytes that also re-express beta-myosin heavy chain. <i>European Journal of Heart Failure</i> , 2009, 11, 648-652.	7.1	10

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91	Galactokinase Is a Novel Modifier of Calcineurin-Induced Cardiomyopathy in <i>Drosophila</i> . <i>Genetics</i> , 2014, 198, 591-603.	2.9	10
92	Late onset cardiovascular dysfunction in adult mice resulting from galactic cosmic ray exposure. <i>IScience</i> , 2022, 25, 104086.	4.1	9
93	Proximity labeling for investigating protein-protein interactions. <i>Methods in Cell Biology</i> , 2022, , 237-266.	1.1	7
94	An N-ethyl-N-nitrosourea mutagenesis recessive screen identifies two candidate regions for murine cardiomyopathy that map to chromosomes 1 and 15. <i>Mammalian Genome</i> , 2009, 20, 296-304.	2.2	6
95	Methods for the Detection of Altered $\beta$ -Adrenergic Receptor Signaling Pathways in Hypertrophied Hearts. , 2005, 112, 353-362.		4
96	Heart fails without pump partner. <i>Nature</i> , 2011, 477, 546-547.	27.8	4
97	Introduction to the Series on Novel Aspects of Cardiovascular G-Protein-Coupled Receptor Signaling. <i>Circulation Research</i> , 2011, 109, 202-204.	4.5	4
98	Deletion of Siah-interacting protein gene in <i>Drosophila</i> causes cardiomyopathy. <i>Molecular Genetics and Genomics</i> , 2012, 287, 351-360.	2.1	3
99	Role of $\beta$ -Adrenoceptor Desensitization in Heart Failure. <i>Cardiovascular Drug Reviews</i> , 1999, 17, 384-394.	4.1	2
100	The role of G-protein-coupled receptors in heart failure. <i>Drug Discovery Today Disease Mechanisms</i> , 2004, 1, 37-43.	0.8	1
101	Receptor-Signaling Pathways in Heart Failure. , 2005, , 123-143.		0
102	Lessons From Overexpressed Mouse Models. , 2006, , 293-320.		0
103	Receptor Signaling Pathways in Heart Failure: Transgenic Mouse Models. , 2008, , 89-111.		0
104	$\beta$ 1 adrenergic receptor ( $\beta$ 1AR) $\beta$ -epidermal growth factor receptor (EGFR) interaction regulates ERK cellular activity. <i>FASEB Journal</i> , 2008, 22, 723.1.	0.5	0
105	AT1 A R $\beta$ -arrestin signaling confers PPAR $\beta$ agonist $\beta$ -mediated myocyte contractility. <i>FASEB Journal</i> , 2010, 24, 586.3.	0.5	0
106	Increased intracellular creatine content is not harmful to the mouse heart. <i>FASEB Journal</i> , 2011, 25, 1033.10.	0.5	0
107	Modulating G Protein-Coupled Receptors to Effect Reverse Cardiac Remodeling. , 2013, , 159-177.		0
108	Abstract 274: Carvedilol Stimulated $\beta$ -Arrestin Biased $\beta$ 1 Adrenergic Receptor Signaling. <i>Circulation Research</i> , 2015, 117, .	4.5	0