

# Sudarshan Rajagopal

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4044434/publications.pdf>

Version: 2024-02-01

113  
papers

7,722  
citations

94269

37  
h-index

54797

84  
g-index

125  
all docs

125  
docs citations

125  
times ranked

9410  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Pathobiology of Pulmonary Arterial Hypertension. <i>Cardiology Clinics</i> , 2022, 40, 1-12.	0.9	14
2	Community guidelines for GPCR ligand bias: IUPHAR review 32. <i>British Journal of Pharmacology</i> , 2022, 179, 3651-3674.	2.7	84
3	GPCR systems pharmacology: a different perspective on the development of biased therapeutics. <i>American Journal of Physiology - Cell Physiology</i> , 2022, 322, C887-C895.	2.1	20
4	Biased agonists of the chemokine receptor CXCR3 differentially signal through G $\beta$ $\gamma$ -arrestin complexes. <i>Science Signaling</i> , 2022, 15, eabg5203.	1.6	13
5	Hemodynamics of the right ventricle and the pulmonary circulation. <i>Applications in Engineering Science</i> , 2022, 10, 100102.	0.5	1
6	Noninvasive diagnosis of pulmonary hypertension with hyperpolarised <sup>129</sup> Xe magnetic resonance imaging and spectroscopy. <i>ERJ Open Research</i> , 2022, 8, 00035-2022.	1.1	4
7	Determining the Requirements for G $\beta$ $\gamma$ -Arrestin Complex Formation at G Protein-Coupled Receptors. <i>FASEB Journal</i> , 2022, 36, .	0.2	0
8	Novel Approaches to Imaging the Pulmonary Vasculature and Right Heart. <i>Circulation Research</i> , 2022, 130, 1445-1465.	2.0	10
9	Biased agonism at chemokine receptors. <i>Cellular Signalling</i> , 2021, 78, 109862.	1.7	28
10	The role of chemokines and chemokine receptors in pulmonary arterial hypertension. <i>British Journal of Pharmacology</i> , 2021, 178, 72-89.	2.7	40
11	Mass Spectrometry-Based for Analysis of. <i>Methods in Molecular Biology</i> , 2021, 2259, 247-257.	0.4	0
12	Noncanonical scaffolding of G $\beta$ $\gamma$ and $\beta$ -arrestin by G protein-coupled receptors. <i>Science</i> , 2021, 371, .	6.0	64
13	The right atrium, more than a storehouse. <i>International Journal of Cardiology</i> , 2021, 331, 329-330.	0.8	6
14	Receptor Endocytosis as a Mechanism of Biased Agonism at CXCR3. <i>FASEB Journal</i> , 2021, 35, .	0.2	0
15	$\beta$ -Arrestin-biased ACKR3 Promotes G $\beta$ $\gamma$ -Arrestin Complex Formation. <i>FASEB Journal</i> , 2021, 35, .	0.2	0
16	G protein- and $\beta$ -arrestin Signaling Profiles of Endothelin Derivatives at the Type A Endothelin Receptor. <i>Kidney360</i> , 2021, 2, 1124-1131.	0.9	1
17	Using hyperpolarized <sup>129</sup> Xe gas-exchange MRI to model the regional airspace, membrane, and capillary contributions to diffusing capacity. <i>Journal of Applied Physiology</i> , 2021, 130, 1398-1409.	1.2	23
18	Sympathetic and Parasympathetic Regulation of NF $\kappa$ B by GPCRs through the modulation of interactions between p65/RelA and the $\beta$ -arrestins. <i>FASEB Journal</i> , 2021, 35, .	0.2	0

#	ARTICLE	IF	CITATIONS
19	NEDD9 Is a Novel and Modifiable Mediator of Platelet-Endothelial Adhesion in the Pulmonary Circulation. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2021, 203, 1533-1545.	2.5	14
20	Inhaled treprostinil and forced vital capacity in patients with interstitial lung disease and associated pulmonary hypertension: a post-hoc analysis of the INCREASE study. <i>Lancet Respiratory Medicine</i> , 2021, 9, 1266-1274.	5.2	62
21	A multiscale model of vascular function in chronic thromboembolic pulmonary hypertension. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2021, 321, H318-H338.	1.5	18
22	Chronic Thromboembolic Pulmonary Hypertension: the Bench. <i>Current Cardiology Reports</i> , 2021, 23, 141.	1.3	4
23	Chronic Thromboembolic Pulmonary Hypertension: the Bedside. <i>Current Cardiology Reports</i> , 2021, 23, 147.	1.3	6
24	IL-27 Derived From Macrophages Facilitates IL-15 Production and T Cell Maintenance Following Allergic Hypersensitivity Responses. <i>Frontiers in Immunology</i> , 2021, 12, 713304.	2.2	7
25	Noninvasive Risk Score to Screen for Pulmonary Hypertension With Elevated Pulmonary Vascular Resistance in Diseases of Chronic Volume Overload. <i>American Journal of Cardiology</i> , 2021, 159, 113-120.	0.7	0
26	Beta-Arrestins and Receptor Signaling in the Vascular Endothelium. <i>Biomolecules</i> , 2021, 11, 9.	1.8	9
27	OUTCOMES OF PATIENTS ACROSS THE SPECTRUM OF PULMONARY HYPERTENSION GROUPS PRESCRIBED INHALED TREPROSTINIL. <i>Chest</i> , 2021, 160, A2250-A2251.	0.4	0
28	$\beta$ -Arrestin-Mediated Angiotensin II Type 1 Receptor Activation Promotes Pulmonary Vascular Remodeling in Pulmonary Hypertension. <i>JACC Basic To Translational Science</i> , 2021, 6, 854-869.	1.9	8
29	Visualizing Pulmonary Vascular Disease With CT Scanning. <i>Chest</i> , 2021, 160, 1998-1999.	0.4	1
30	Pulmonary Hypertension Subtypes and Mortality in CKD. <i>American Journal of Kidney Diseases</i> , 2020, 75, 713-724.	2.1	32
31	Arrestin-mediated signaling at GPCRs. , 2020, , 243-255.		0
32	Identification of potent pyrazole based APELIN receptor (APJ) agonists. <i>Bioorganic and Medicinal Chemistry</i> , 2020, 28, 115237.	1.4	13
33	Assessing right atrial function in pulmonary hypertension: window to the soul of the right heart?. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2020, 318, H154-H155.	1.5	7
34	Experience in Transitioning From Parenteral Prostacyclins to Selexipag in Pulmonary Arterial Hypertension. <i>Journal of Cardiovascular Pharmacology</i> , 2020, 75, 299-304.	0.8	8
35	EXTRA VOLUME: PULMONARY HYPERTENSION CAUSED BY EXTRA-CARDIAC AND INTRA-CARDIAC SHUNTING. <i>Journal of the American College of Cardiology</i> , 2020, 75, 2804.	1.2	2
36	Echocardiography to Screen for Pulmonary Hypertension in CKD. <i>Kidney International Reports</i> , 2020, 5, 2275-2283.	0.4	4

#	ARTICLE	IF	CITATIONS
37	Quantitative <sup>129</sup> Xe MRI detects early impairment of gas-exchange in a rat model of pulmonary hypertension. <i>Scientific Reports</i> , 2020, 10, 7385.	1.6	10
38	Nonclassical Monocytes Sense Hypoxia, Regulate Pulmonary Vascular Remodeling, and Promote Pulmonary Hypertension. <i>Journal of Immunology</i> , 2020, 204, 1474-1485.	0.4	38
39	Biased agonists of the chemokine receptor CXCR3 differentially drive formation of G $\beta$ i and $\beta$ arrestin complexes. <i>FASEB Journal</i> , 2020, 34, 1-1.	0.2	0
40	ACKR3 Regulates Endothelial Cell Function with Non-canonical Integration of G $\beta$ i and $\beta$ arrestin. <i>FASEB Journal</i> , 2020, 34, 1-1.	0.2	0
41	Biased Agonism at CXCR3 Drives Differential Phosphoproteomic and Transcriptomic Profiles and Cellular Outputs. <i>FASEB Journal</i> , 2020, 34, 1-1.	0.2	0
42	Isoforms of GPCR proteins combine for diverse signalling. <i>Nature</i> , 2020, 587, 553-554.	13.7	1
43	Abstract 15386: Integrated Phosphoproteome and Transcriptome Analysis of Biased Agonists at CXCR3 Reveals Differential Cellular Outputs of Inflammation. <i>Circulation</i> , 2020, 142, .	1.6	0
44	Tandem Mass Tag Labeling Facilitates Reversed-Phase Liquid Chromatography-Mass Spectrometry Analysis of Hydrophilic Phosphopeptides. <i>Analytical Chemistry</i> , 2019, 91, 11606-11613.	3.2	22
45	Monitoring Pulmonary Arterial Hypertension Using an Implantable Hemodynamic Sensor. <i>Chest</i> , 2019, 156, 1176-1186.	0.4	32
46	Echocardiographic Assessment of Right Ventricular Function and Response to Therapy in Pulmonary Arterial Hypertension. <i>American Journal of Cardiology</i> , 2019, 124, 1298-1304.	0.7	13
47	<sup>129</sup> Xenon MR Imaging and Spectroscopic Signatures to Differentiate Pulmonary Arterial Hypertension from Other Heart and Lung Disease. , 2019, , .		0
48	Diverse cardiopulmonary diseases are associated with distinct xenon magnetic resonance imaging signatures. <i>European Respiratory Journal</i> , 2019, 54, 1900831.	3.1	47
49	Pathogen Evasion of Chemokine Response Through Suppression of CXCL10. <i>Frontiers in Cellular and Infection Microbiology</i> , 2019, 9, 280.	1.8	33
50	MEF2 and the Right Ventricle: From Development to Disease. <i>Frontiers in Cardiovascular Medicine</i> , 2019, 6, 29.	1.1	17
51	Clinical Features and Outcomes of Patients with Sarcoidosis-associated Pulmonary Hypertension. <i>Scientific Reports</i> , 2019, 9, 4061.	1.6	36
52	How do chemokines navigate neutrophils to the target site: Dissecting the structural mechanisms and signaling pathways. <i>Cellular Signalling</i> , 2019, 54, 69-80.	1.7	152
53	A protocol for quantifying cardiogenic oscillations in dynamic <sup>129</sup> Xe gas exchange spectroscopy: The effects of idiopathic pulmonary fibrosis. <i>NMR in Biomedicine</i> , 2019, 32, e4029.	1.6	32
54	Nasally Inhaled Nitric Oxide for Sudden Right-Sided Heart Failure in the Intensive Care Unit: NO Time Like the Present. <i>Journal of Cardiothoracic and Vascular Anesthesia</i> , 2019, 33, 648-650.	0.6	2

#	ARTICLE	IF	CITATIONS
55	Vascular Endothelial Growth Factor Receptor 3 Regulates Endothelial Function Through $\beta$ -Arrestin 1. <i>Circulation</i> , 2019, 139, 1629-1642.	1.6	33
56	Identification of Potent Pyrazole-Based Biased Small Molecule APJ Receptor Agonists. <i>FASEB Journal</i> , 2019, 33, 670.13.	0.2	0
57	Biased signalling: from simple switches to allosteric microprocessors. <i>Nature Reviews Drug Discovery</i> , 2018, 17, 243-260.	21.5	524
58	Right Ventricular Longitudinal Strain Reproducibility Using Vendor-Dependent and Vendor-Independent Software. <i>Journal of the American Society of Echocardiography</i> , 2018, 31, 721-732.e5.	1.2	37
59	GPCR desensitization: Acute and prolonged phases. <i>Cellular Signalling</i> , 2018, 41, 9-16.	1.7	221
60	Clinical Utility and Prognostic Value of Right Atrial Function in Pulmonary Hypertension. <i>Circulation: Cardiovascular Imaging</i> , 2018, 11, e006984.	1.3	59
61	Biased agonists of the chemokine receptor CXCR3 differentially control chemotaxis and inflammation. <i>Science Signaling</i> , 2018, 11, .	1.6	40
62	The Role of G Protein-Coupled Receptors in the Right Ventricle in Pulmonary Hypertension. <i>Frontiers in Cardiovascular Medicine</i> , 2018, 5, 179.	1.1	12
63	Manifold roles of $\beta$ -arrestins in GPCR signaling elucidated with siRNA and CRISPR/Cas9. <i>Science Signaling</i> , 2018, 11, .	1.6	169
64	Chemokine Signaling in Allergic Contact Dermatitis: Toward Targeted Therapies. <i>Dermatitis</i> , 2018, 29, 179-186.	0.8	19
65	Hyperpolarized <sup>129</sup> Xe gas transfer MRI: the transition from 1.5T to 3T. <i>Magnetic Resonance in Medicine</i> , 2018, 80, 2374-2383.	1.9	27
66	Surgical pulmonary embolectomy and catheter-based therapies for acute pulmonary embolism: A contemporary systematic review. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2018, 156, 2155-2167.	0.4	35
67	Clinical and Echocardiographic Predictors of Outcomes in Patients With Pulmonary Hypertension. <i>American Journal of Cardiology</i> , 2018, 122, 872-878.	0.7	20
68	Echocardiography in the Risk Assessment of Acute Pulmonary Embolism. <i>Seminars in Respiratory and Critical Care Medicine</i> , 2017, 38, 018-028.	0.8	9
69	Novel approach to classifying patients with pulmonary arterial hypertension using cluster analysis. <i>Pulmonary Circulation</i> , 2017, 7, 486-493.	0.8	12
70	Improving on the diagnostic characteristics of echocardiography for pulmonary hypertension. <i>International Journal of Cardiovascular Imaging</i> , 2017, 33, 1341-1349.	0.7	11
71	Quantitative analysis of hyperpolarized <sup>129</sup> Xe gas transfer MRI. <i>Medical Physics</i> , 2017, 44, 2415-2428.	1.6	65
72	Systematic errors in detecting biased agonism: Analysis of current methods and development of a new model-free approach. <i>Scientific Reports</i> , 2017, 7, 44247.	1.6	62

#	ARTICLE	IF	CITATIONS
73	678 Biased CXCR3 ligands differentially alter allergic contact hypersensitivity and chemotaxis. <i>Journal of Investigative Dermatology</i> , 2017, 137, S117.	0.3	0
74	Plasma acylcarnitines are associated with pulmonary hypertension. <i>Pulmonary Circulation</i> , 2017, 7, 211-218.	0.8	21
75	C-X-C Motif Chemokine Receptor 3 Splice Variants Differentially Activate Beta-Arrestins to Regulate Downstream Signaling Pathways. <i>Molecular Pharmacology</i> , 2017, 92, 136-150.	1.0	50
76	A Practical Guide to Approaching Biased Agonism at G Protein Coupled Receptors. <i>Frontiers in Neuroscience</i> , 2017, 11, 17.	1.4	41
77	Safety and Tolerability of High-dose Inhaled Treprostinil in Pulmonary Hypertension. <i>Journal of Cardiovascular Pharmacology</i> , 2016, 67, 322-325.	0.8	12
78	Abnormalities in Hyperpolarized <sup>129</sup> Xe Magnetic Resonance Imaging and Spectroscopy in two Patients with Pulmonary Vascular Disease. <i>Pulmonary Circulation</i> , 2016, 6, 126-131.	0.8	21
79	Clinical and echocardiographic predictors of mortality in acute pulmonary embolism. <i>Cardiovascular Ultrasound</i> , 2016, 14, 44.	0.5	47
80	Hemodynamic Characterization of Rodent Models of Pulmonary Arterial Hypertension. <i>Journal of Visualized Experiments</i> , 2016, , .	0.2	19
81	The $\beta$ -Arrestins: Multifunctional Regulators of G Protein-coupled Receptors. <i>Journal of Biological Chemistry</i> , 2016, 291, 8969-8977.	1.6	246
82	Use of outcome measures in pulmonary hypertension clinical trials. <i>American Heart Journal</i> , 2015, 170, 419-429.e3.	1.2	17
83	The Influence of Angle of Insonation and Target Depth on Speckle-Tracking Strain. <i>Journal of the American Society of Echocardiography</i> , 2015, 28, 580-586.	1.2	39
84	PH Grand Rounds: Confronting the Challenge of Sarcoidosis-Associated Pulmonary Hypertension. <i>Advances in Pulmonary Hypertension</i> , 2015, 14, 166-169.	0.1	0
85	What is biased efficacy? Defining the relationship between intrinsic efficacy and free energy coupling. <i>Trends in Pharmacological Sciences</i> , 2014, 35, 639-647.	4.0	37
86	Right Ventricular Mechanics Using a Novel Comprehensive Three-View Echocardiographic Strain Analysis in a Normal Population. <i>Journal of the American Society of Echocardiography</i> , 2014, 27, 413-422.	1.2	49
87	Comprehensive Assessment of Right Ventricular Function in Patients with Pulmonary Hypertension with Global Longitudinal Peak Systolic Strain Derived from Multiple Right Ventricular Views. <i>Journal of the American Society of Echocardiography</i> , 2014, 27, 657-665.e3.	1.2	76
88	Hemodynamic Response to Continuous Outpatient Milrinone Infusion in Advanced Heart Failure Patients with Mixed Pulmonary Hypertension. <i>Journal of Cardiac Failure</i> , 2014, 20, S41.	0.7	1
89	Monitoring protein conformational changes and dynamics using stable-isotope labeling and mass spectrometry. <i>Nature Protocols</i> , 2014, 9, 1301-1319.	5.5	49
90	Understanding the mechanism of biased agonism at chemokine receptors (1066.17). <i>FASEB Journal</i> , 2014, 28, 1066.17.	0.2	0

#	ARTICLE	IF	CITATIONS
91	Quantifying biased agonism: understanding the links between affinity and efficacy. <i>Nature Reviews Drug Discovery</i> , 2013, 12, 483-483.	21.5	25
92	Biased Agonism as a Mechanism for Differential Signaling by Chemokine Receptors. <i>Journal of Biological Chemistry</i> , 2013, 288, 35039-35048.	1.6	111
93	Quantifying Ligand Bias at Seven-Transmembrane Receptors. <i>Molecular Pharmacology</i> , 2011, 80, 367-377.	1.0	341
94	A stress response pathway regulates DNA damage through $\beta$ <sup>2</sup> -adrenoreceptors and $\beta$ <sup>2</sup> -arrestin-1. <i>Nature</i> , 2011, 477, 349-353.	13.7	360
95	Therapeutic potential of $\beta$ <sup>2</sup> -arrestin- and G protein-biased agonists. <i>Trends in Molecular Medicine</i> , 2011, 17, 126-139.	3.5	469
96	Distinct Phosphorylation Sites on the $\beta$ <sup>2</sup> <sub>2</sub> -Adrenergic Receptor Establish a Barcode That Encodes Differential Functions of $\beta$ <sup>2</sup> -Arrestin. <i>Science Signaling</i> , 2011, 4, ra51.	1.6	535
97	Multiple ligand-specific conformations of the $\beta$ <sup>2</sup> -adrenergic receptor. <i>Nature Chemical Biology</i> , 2011, 7, 692-700.	3.9	229
98	Teaching old receptors new tricks: biasing seven-transmembrane receptors. <i>Nature Reviews Drug Discovery</i> , 2010, 9, 373-386.	21.5	724
99	Global phosphorylation analysis of $\beta$ <sup>2</sup> -arrestin-mediated signaling downstream of a seven transmembrane receptor (7TMR). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 15299-15304.	3.3	182
100	$\beta$ <sup>2</sup> -arrestin- but not G protein-mediated signaling by the $\beta$ -decoy-receptor CXCR7. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 628-632.	3.3	499
101	Total chemical synthesis and biophysical characterization of the minimal isoform of the KChIP2 potassium channel regulatory subunit. <i>Protein Science</i> , 2007, 16, 2056-2064.	3.1	10
102	A Structural Pathway for Signaling in the E46Q Mutant of Photoactive Yellow Protein. <i>Structure</i> , 2005, 13, 55-63.	1.6	73
103	From The Cover: Visualizing reaction pathways in photoactive yellow protein from nanoseconds to seconds. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 7145-7150.	3.3	256
104	Purification and Initial Characterization of a Putative Blue Light-regulated Phosphodiesterase from <i>Escherichia coli</i> . <i>Photochemistry and Photobiology</i> , 2004, 80, 542.	1.3	56
105	Chromophore Conformation and the Evolution of Tertiary Structural Changes in Photoactive Yellow Protein. <i>Structure</i> , 2004, 12, 1039-1045.	1.6	65
106	Analysis of experimental time-resolved crystallographic data by singular value decomposition. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2004, 60, 860-871.	2.5	50
107	Protein kinetics: Structures of intermediates and reaction mechanism from time-resolved x-ray data. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 4799-4804.	3.3	88
108	Analytical trapping: extraction of time-independent structures from time-dependent crystallographic data. <i>Journal of Structural Biology</i> , 2004, 147, 211-222.	1.3	20

#	ARTICLE	IF	CITATIONS
109	Purification and Initial Characterization of a Putative Blue Light-Regulated Phosphodiesterase from <i>Escherichia coli</i> . <i>Photochemistry and Photobiology</i> , 2004, 80, 542-547.	1.3	5
110	Purification and Initial Characterization of a Putative Blue Light Regulated Phosphodiesterase from <i>Escherichia coli</i> . <i>Photochemistry and Photobiology</i> , 2004, 80, 542-7.	1.3	23
111	The LOV Domain Family: Photoresponsive Signaling Modules Coupled to Diverse Output Domains. <i>Biochemistry</i> , 2003, 42, 2-10.	1.2	387
112	Application of Singular Value Decomposition to the Analysis of Time-Resolved Macromolecular X-Ray Data. <i>Biophysical Journal</i> , 2003, 84, 2112-2129.	0.2	146
113	Crystal structure of a photoactive yellow protein from a sensor histidine kinase: Conformational variability and signal transduction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 1649-1654.	3.3	39