

Karnam S Murthy

List of Publications by Year in descending order

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57
papers

1,845
citations

331538

21
h-index

265120

42
g-index

57
all docs

57
docs citations

57
times ranked

2437
citing authors

#	ARTICLE	IF	CITATIONS
1	SIGNALING FOR CONTRACTION AND RELAXATION IN SMOOTH MUSCLE OF THE GUT. Annual Review of Physiology, 2006, 68, 345-374.	5.6	310
2	Differential signalling by muscarinic receptors in smooth muscle: m2-mediated inactivation of myosin light chain kinase via Gi3, Cdc42/Rac1 and p21-activated kinase 1 pathway, and m3-mediated MLC20 (20kDa) targeting subunit 1 and protein kinase C/CPI-17 pathway. Biochemical Journal, 2003, 374, 145-155.	1.7	154
3	The short chain fatty acids, butyrate and propionate, have differential effects on the motility of the guinea pig colon. Neurogastroenterology and Motility, 2014, 26, 1586-1596.	1.6	100
4	Activation of Transmembrane Bile Acid Receptor TGR5 Modulates Pancreatic Islet β Cells to Promote Glucose Homeostasis. Journal of Biological Chemistry, 2016, 291, 6626-6640.	1.6	100
5	Inhibition of sustained smooth muscle contraction by PKA and PKG preferentially mediated by phosphorylation of RhoA. American Journal of Physiology - Renal Physiology, 2003, 284, G1006-G1016.	1.6	98
6	Noncanonical STAT3 Activation Regulates Excess TGF- β 1 and Collagen I Expression in Muscle of Stricturing Crohn's Disease. Journal of Immunology, 2015, 194, 3422-3431.	0.4	93
7	PKA-dependent activation of PDE3A and PDE4 and inhibition of adenylyl cyclase V/VI in smooth muscle. American Journal of Physiology - Cell Physiology, 2002, 282, C508-C517.	2.1	88
8	Release of GLP-1 and PYY in response to the activation of G protein-coupled bile acid receptor TGR5 is mediated by Epac/PLC- β pathway and modulated by endogenous H ₂ S. Frontiers in Physiology, 2014, 5, 420.	1.3	86
9	Activation of phosphodiesterase 5 and inhibition of guanylate cyclase by cGMP-dependent protein kinase in smooth muscle. Biochemical Journal, 2001, 360, 199-208.	1.7	78
10	Heterologous Desensitization Mediated by G Protein-specific Binding to Caveolin. Journal of Biological Chemistry, 2000, 275, 30211-30219.	1.6	76
11	Activation of G protein-coupled bile acid receptor, TGR5, induces smooth muscle relaxation via both Epac- and PKA-mediated inhibition of RhoA/Rho kinase pathway. American Journal of Physiology - Renal Physiology, 2013, 304, G527-G535.	1.6	65
12	Selective phosphorylation of the IP ₃ R-1 in vivo by cGMP-dependent protein kinase in smooth muscle. American Journal of Physiology - Renal Physiology, 2003, 284, G221-G230.	1.6	53
13	Activation of phosphodiesterase 5 and inhibition of guanylate cyclase by cGMP-dependent protein kinase in smooth muscle. Biochemical Journal, 2001, 360, 199.	1.7	50
14	Activation of the umami taste receptor (T1R1/T1R3) initiates the peristaltic reflex and pellet propulsion in the distal colon. American Journal of Physiology - Renal Physiology, 2014, 307, G1100-G1107.	1.6	42
15	Branched Short-Chain Fatty Acid Isovaleric Acid Causes Colonic Smooth Muscle Relaxation via cAMP/PKA Pathway. Digestive Diseases and Sciences, 2019, 64, 1171-1181.	1.1	41
16	Activation of PLC- β 1 by Gi/o-coupled receptor agonists. American Journal of Physiology - Cell Physiology, 2004, 287, C1679-C1687.	2.1	39
17	Phosphorylation of GRK2 by PKA augments GRK2-mediated phosphorylation, internalization, and desensitization of VPAC2 receptors in smooth muscle. American Journal of Physiology - Cell Physiology, 2008, 294, C477-C487.	2.1	29
18	Inhibition of RhoA-dependent pathway and contraction by endogenous hydrogen sulfide in rabbit gastric smooth muscle cells. American Journal of Physiology - Cell Physiology, 2015, 308, C485-C495.	2.1	26

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19	Longitudinal smooth muscle of the mammalian intestine. <i>Cell Biochemistry and Biophysics</i> , 1998, 28, 31-44.	0.9	25
20	cGMP-mediated Ca ²⁺ release from IP ₃ -insensitive Ca ²⁺ stores in smooth muscle. <i>American Journal of Physiology - Cell Physiology</i> , 1998, 274, C1199-C1205.	2.1	21
21	Modulation of soluble guanylate cyclase activity by phosphorylation. <i>Neurochemistry International</i> , 2004, 45, 845-851.	1.9	21
22	Augmentation of cGMP/PKG pathway and colonic motility by hydrogen sulfide. <i>American Journal of Physiology - Renal Physiology</i> , 2017, 313, G330-G341.	1.6	21
23	Hypercontractility of Intestinal Longitudinal Smooth Muscle Induced by Cytokines Is Mediated by the Nuclear Factor- κ B/AMP-Activated Kinase/Myosin Light Chain Kinase Pathway. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2014, 350, 89-98.	1.3	20
24	Diabetes-induced oxidative stress mediates upregulation of RhoA/Rho kinase pathway and hypercontractility of gastric smooth muscle. <i>PLoS ONE</i> , 2017, 12, e0178574.	1.1	20
25	Differential regulation of muscarinic M ₂ and M ₃ receptor signaling in gastrointestinal smooth muscle by caveolin-1. <i>American Journal of Physiology - Cell Physiology</i> , 2013, 305, C334-C347.	2.1	18
26	Cytokine-Induced S-Nitrosylation of Soluble Guanylyl Cyclase and Expression of Phosphodiesterase 1A Contribute to Dysfunction of Longitudinal Smooth Muscle Relaxation. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2015, 352, 509-518.	1.3	18
27	Inhibition of RhoA/Rho kinase pathway and smooth muscle contraction by hydrogen sulfide. <i>Pharmacology Research and Perspectives</i> , 2017, 5, e00343.	1.1	17
28	Inhibitory Phosphorylation of Soluble Guanylyl Cyclase by Muscarinic m ₂ Receptors via G β γ -Dependent Activation of c-Src Kinase. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2008, 325, 183-189.	1.3	15
29	Identification of expression and function of the glucagon-like peptide-1 receptor in colonic smooth muscle. <i>Peptides</i> , 2019, 112, 48-55.	1.2	15
30	Nicotine-Induced Effects on Nicotinic Acetylcholine Receptors (nAChRs), Ca ²⁺ and Brain-Derived Neurotrophic Factor (BDNF) in STC-1 Cells. <i>PLoS ONE</i> , 2016, 11, e0166565.	1.1	13
31	Decreased smooth muscle function, peristaltic activity, and gastrointestinal transit in dystrophic (<i>mdx</i>) mice. <i>Neurogastroenterology and Motility</i> , 2021, 33, e13968.	1.6	13
32	COVID-19 and gastrointestinal system: A brief review. <i>Biomedical Journal</i> , 2021, 44, 245-251.	1.4	11
33	Cytokine-induced iNOS and ERK1/2 inhibit adenylyl cyclase type 5/6 activity and stimulate phosphodiesterase 4D5 activity in intestinal longitudinal smooth muscle. <i>American Journal of Physiology - Cell Physiology</i> , 2014, 307, C402-C411.	2.1	9
34	Jun kinase-induced overexpression of leukemia-associated Rho GEF (LARG) mediates sustained hypercontraction of longitudinal smooth muscle in inflammation. <i>American Journal of Physiology - Cell Physiology</i> , 2014, 306, C1129-C1141.	2.1	9
35	Role of various kinases in muscarinic M ₃ receptor-mediated contraction of longitudinal muscle of rat colon. <i>Journal of Smooth Muscle Research</i> , 2014, 50, 103-119.	0.7	9
36	Immune/Inflammatory Response and Hypocontractility of Rabbit Colonic Smooth Muscle After TNBS-Induced Colitis. <i>Digestive Diseases and Sciences</i> , 2016, 61, 1925-1940.	1.1	9

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37	Increased PDE5 activity and decreased Rho kinase and PKC activities in colonic muscle from caveolin-1 ^{-/-} mice impair the peristaltic reflex and propulsion. American Journal of Physiology - Renal Physiology, 2013, 305, G964-G974.	1.6	8
38	Expression patterns of l-amino acid receptors in the murine STC-1 enteroendocrine cell line. Cell and Tissue Research, 2019, 378, 471-483.	1.5	7
39	Expression and function of umami receptors T1R1/T1R3 in gastric smooth muscle. Neurogastroenterology and Motility, 2020, 32, e13737.	1.6	7
40	Stimulatory phosphorylation of cAMP-specific PDE4D5 by contractile agonists is mediated by PKC-dependent inactivation of protein phosphatase 2A. American Journal of Physiology - Renal Physiology, 2008, 294, G327-G335.	1.6	6
41	Regulator of G protein signaling 4 is a novel target of GATA-6 transcription factor. Biochemical and Biophysical Research Communications, 2017, 483, 923-929.	1.0	6
42	Muscarinic m2 receptor-mediated actin polymerization via PI3 kinase β and integrin-linked kinase in gastric smooth muscle. Neurogastroenterology and Motility, 2019, 31, e13495.	1.6	6
43	Regulation of gastric smooth muscle contraction via Ca ²⁺ -dependent and Ca ²⁺ -independent actin polymerization. PLoS ONE, 2018, 13, e0209359.	1.1	5
44	Cyclic-AMP regulates postnatal development of neural and behavioral responses to NaCl in rats. PLoS ONE, 2017, 12, e0171335.	1.1	4
45	Smooth Muscle of the Gut. , 0, , 103-132.		2
46	Pituitary Adenylate Cyclase-Activating Peptide (PACAP) and Substance P (SP) induce the release of Brain-Derived Neurotrophic Factor (BDNF) from the longitudinal muscle layer of the intestine. FASEB Journal, 2011, 25, 1070.4.	0.2	2
47	Obituary for Dr. Gabriel M. Makhlof. Neurogastroenterology and Motility, 2021, 33, e14272.	1.6	0
48	Up-regulation of RGS2 Mediate IL-1 β -induced Decrease in Muscle Contraction in Response to NPR activation in Tenia Coli. FASEB Journal, 2009, 23, 983.3.	0.2	0
49	Characterization of Melatonin Receptors and Signaling Pathways in Gastrointestinal Smooth Muscle. FASEB Journal, 2010, 24, 1008.3.	0.2	0
50	Expression of PDE5 and its stimulation by cGMP-dependent protein kinase (PKG) determine the magnitude of smooth muscle relaxation in different regions of the stomach. FASEB Journal, 2010, 24, 1008.4.	0.2	0
51	Protease-activated receptor-2 reduces cycloheximide-induced apoptosis in K562 myeloid leukemia cells. FASEB Journal, 2011, 25, lb311.	0.2	0
52	Regulation of Rho-Dependent Sustained Contraction by Caveolin-1 in Gastric Smooth Muscle. FASEB Journal, 2011, 25, 1059.5.	0.2	0
53	Differences in the Expression of Multi-Drug Resistant Protein 5 (MRP5) and Regulation of cGMP Levels in Phasic and Tonic Smooth Muscles. FASEB Journal, 2011, 25, 1059.4.	0.2	0
54	Agonist-Induced Rho Kinase and ZIP kinase Activity Levels in Different Regions of the Stomach. FASEB Journal, 2011, 25, 1059.3.	0.2	0

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55	Characterization of Gzâ€Coupled Dopamine D3 Receptors in Gastric Smooth Muscle. FASEB Journal, 2012, 26, 1075.22.	0.2	0
56	Hydrogen Sulfide Improves Aberrant Gastric Smooth Muscle Function in Duchenne Muscular Dystrophy Mice. FASEB Journal, 2019, 33, 821.8.	0.2	0
57	Restoration of Contractile Protein Expression and Colonic Smooth Muscle Function by H 2 S in Duchenne Muscular Dystrophy Mice. FASEB Journal, 2019, 33, 821.5.	0.2	0