# Susan J Gunst

List of Publications by Year
in descending order



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|---|---|---|---|
| 65 papers | 3,269 citations | 147726 31 h-index | 149623 56 g-index |
| 65 all docs | 65 docs citations | 65 times ranked | 2254 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Actin cytoskeletal dynamics in smooth muscle: a new paradigm for the regulation of smooth muscle contraction. American Journal of Physiology - Cell Physiology, 2008, 295, C576-C587. | 2.1 | 305 |
| 2 | Invited Review: Focal adhesion and small heat shock proteins in the regulation of actin remodeling and contractility in smooth muscle. Journal of Applied Physiology, 2001, 91, 963-972. | 1.2 | 266 |
| 3 | Actin polymerization stimulated by contractile activation regulates force development in canine tracheal smooth muscle. Journal of Physiology, 1999, 519, 829-840. | 1.3 | 217 |
| 4 | Mechanosensitive tyrosine phosphorylation of paxillin and focal adhesion kinase in tracheal smooth muscle. American Journal of Physiology - Cell Physiology, 1999, 276, C250-C258. | 2.1 | 140 |
| 5 | Cytoskeletal remodeling of the airway smooth muscle cell: a mechanism for adaptation to mechanical forces in the lung. Respiratory Physiology and Neurobiology, 2003, 137, 151-168. | 0.7 | 132 |
| 6 | The first three minutes: smooth muscle contraction, cytoskeletal events, and soft glasses. Journal of Applied Physiology, 2003, 95, 413-425. | 1.2 | 121 |
| 7 | Tension development during contractile stimulation of smooth muscle requires recruitment of paxillin and vinculin to the membrane. American Journal of Physiology - Cell Physiology, 2004, 286, C433-C447. | 2.1 | 119 |
| 8 | Cytoskeletal remodeling in differentiated vascular smooth muscle is actin isoform dependent and stimulus dependent. American Journal of Physiology - Cell Physiology, 2008, 295, C768-C778. | 2.1 | 113 |
| 9 | Selected Contribution: Plasticity of airway smooth muscle stiffness and extensibility: role of length-adaptive mechanisms. Journal of Applied Physiology, 2001, 90, 741-749. | 1.2 | 106 |
| 10 | Activation of the Arp2/3 complex by N-WASp is required for actin polymerization and contraction in smooth muscle. American Journal of Physiology - Cell Physiology, 2005, 288, C1145-C1160. | 2.1 | 106 |
| 11 | Interactions of Airway Smooth Muscle Cells with Their Tissue Matrix: Implications for Contraction. Proceedings of the American Thoracic Society, 2008, 5, 32-39. | 3.5 | 105 |
| 12 | Silencing of p21-activated kinase attenuates vimentin phosphorylation on Ser-56 and reorientation of the vimentin network during stimulation of smooth muscle cells by 5-hydroxytryptamine. Biochemical Journal, 2005, 388, 773-783. | 1.7 | 94 |
| 13 | The Small GTPase Cdc42 Regulates Actin Polymerization and Tension Development during Contractile Stimulation of Smooth Muscle. Journal of Biological Chemistry, 2004, 279, 51722-51728. | 1.6 | 91 |
| 14 | The Adapter Protein CrkII Regulates Neuronal Wiskott-Aldrich Syndrome Protein, Actin Polymerization, and Tension Development during Contractile Stimulation of Smooth Muscle. Journal of Biological Chemistry, 2005, 280, 23380-23389. | 1.6 | 85 |
| 15 | The Small GTPase RhoA Regulates the Contraction of Smooth Muscle Tissues by Catalyzing the Assembly of Cytoskeletal Signaling Complexes at Membrane Adhesion Sites. Journal of Biological Chemistry, 2012, 287, 33996-34008. | 1.6 | 80 |
| 16 | Depletion of focal adhesion kinase by antisense depresses contractile activation of smooth muscle. American Journal of Physiology - Cell Physiology, 2001, 280, C874-C883. | 2.1 | 70 |
| 17 | Dynamic association between Î±-actinin and Î²-integrin regulates contraction of canine tracheal smooth muscle. Journal of Physiology, 2006, 572, 659-676. | 1.3 | 63 |
| 18 | Actin Depolymerization Factor/Cofilin Activation Regulates Actin Polymerization and Tension Development in Canine Tracheal Smooth Muscle. Journal of Biological Chemistry, 2008, 283, 36522-36531. | 1.6 | 62 |

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|---|---|---|---|
| 19 | Use of continuous positive airway pressure reduces airway reactivity in adults with asthma. European Respiratory Journal, 2013, 41, 317-322. | 3.1 | 61 |
| 20 | Limitation of Maximal Bronchoconstriction in Living Dogs. The American Review of Respiratory Disease, 1992, 145, 553-560. | 2.9 | 60 |
| 21 | Expression of Nonâ€Phosphorylatable Paxillin Mutants in Canine Tracheal Smooth Muscle Inhibits Tension Development. Journal of Physiology, 2003, 553, 21-35. | 1.3 | 59 |
| 22 | The focal adhesion protein paxillin regulates contraction in canine tracheal smooth muscle. Journal of Physiology, 2002, 542, 501-513. | 1.3 | 57 |
| 23 | Integrin-linked Kinase Regulates N-WASp-mediated Actin Polymerization and Tension Development in Tracheal Smooth Muscle. Journal of Biological Chemistry, 2007, 282, 34568-34580. | 1.6 | 51 |
| 24 | Selected Contribution: Roles of focal adhesion kinase and paxillin in the mechanosensitive regulation of myosin phosphorylation in smooth muscle. Journal of Applied Physiology, 2001, 91, 1452-1459. | 1.2 | 48 |
| 25 | Activation of Vinculin Induced by Cholinergic Stimulation Regulates Contraction of Tracheal Smooth Muscle Tissue. Journal of Biological Chemistry, 2011, 286, 3630-3644. | 1.6 | 48 |
| 26 | A novel role for RhoA GTPase in the regulation of airway smooth muscle contraction. Canadian Journal of Physiology and Pharmacology, 2015, 93, 129-136. | 0.7 | 48 |
| 27 | Nonâ€muscle (NM) myosin heavy chain phosphorylation regulates the formation of NM myosin filaments, adhesome assembly and smooth muscle contraction. Journal of Physiology, 2017, 595, 4279-4300. | 1.3 | 40 |
| 28 | The effects of the small GTPase RhoA on the muscarinic contraction of airway smooth muscle result from its role in regulating actin polymerization. American Journal of Physiology - Cell Physiology, 2010, 299, C298-C306. | 2.1 | 37 |
| 29 | Mechanical stimuli and IL-13 interact at integrin adhesion complexes to regulate expression of smooth muscle myosin heavy chain in airway smooth muscle tissue. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2011, 301, L275-L284. | 1.3 | 37 |
| 30 | Role of Rho in Ca<sup>2+</sup>-insensitive contraction and paxillin tyrosine phosphorylation in smooth muscle. American Journal of Physiology - Cell Physiology, 2000, 279, C308-C318. | 2.1 | 36 |
| 31 | Rho kinase collaborates with p21â€activated kinase to regulate actin polymerization and contraction in airway smooth muscle. Journal of Physiology, 2018, 596, 3617-3635. | 1.3 | 35 |
| 32 | Vinculin Phosphorylation at Tyr1065 Regulates Vinculin Conformation and Tension Development in Airway Smooth Muscle Tissues. Journal of Biological Chemistry, 2014, 289, 3677-3688. | 1.6 | 34 |
| 33 | Integrin-linked kinase regulates smooth muscle differentiation marker gene expression in airway tissue. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2008, 295, L988-L997. | 1.3 | 31 |
| 34 | p21â€Activated kinase (Pak) regulates airway smooth muscle contraction by regulating paxillin complexes that mediate actin polymerization. Journal of Physiology, 2016, 594, 4879-4900. | 1.3 | 30 |
| 35 | Vasodilator-stimulated Phosphoprotein (VASP) Regulates Actin Polymerization and Contraction in Airway Smooth Muscle by a Vinculin-dependent Mechanism. Journal of Biological Chemistry, 2015, 290, 11403-11416. | 1.6 | 28 |
| 36 | Altered calcium signaling in colonic smooth muscle of type 1 diabetic mice. American Journal of Physiology - Renal Physiology, 2012, 302, G66-G76. | 1.6 | 27 |

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|---|---|---|---|
| 37 | Relationship between paxillin and myosin phosphorylation during muscarinic stimulation of smooth muscle. American Journal of Physiology - Cell Physiology, 1998, 274, C741-C747. | 2.1 | 26 |
| 38 | Th17 cells contribute to pulmonary fibrosis and inflammation during chronic kidney disease progression after acute ischemia. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2018, 314, R265-R273. | 0.9 | 22 |
| 39 | Comparison of the shear modulus of mature and immature rabbit lungs. Journal of Applied Physiology, 1999, 87, 711-714. | 1.2 | 21 |
| 40 | Actions by actin: reciprocal regulation of cortactin activity by tyrosine kinases and F-actin. Biochemical Journal, 2004, 380, e7-e8. | 1.7 | 17 |
| 41 | Inhibition of p21 Activated Kinase (PAK) Reduces Airway Responsiveness In Vivo and In Vitro in Murine and Human Airways. PLoS ONE, 2012, 7, e42601. | 1.1 | 17 |
| 42 | Focal adhesion kinase (FAK) and mechanical stimulation negatively regulate the transition of airway smooth muscle tissues to a synthetic phenotype. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2016, 311, L893-L902. | 1.3 | 15 |
| 43 | Elastase alters contractility and promotes an inflammatory synthetic phenotype in airway smooth muscle tissues. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2018, 314, L626-L634. | 1.3 | 15 |
| 44 | S100A4 is secreted by airway smooth muscle tissues and activates inflammatory signaling pathways via receptors for advanced glycation end products. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2020, 319, L185-L195. | 1.3 | 15 |
| 45 | Regulation of 130-kDa Smooth Muscle Myosin Light Chain Kinase Expression by an Intronic CArG Element. Journal of Biological Chemistry, 2013, 288, 34647-34657. | 1.6 | 14 |
| 46 | Point:Counterpoint: Alterations in airway smooth muscle phenotype do/do not cause airway hyperresponsiveness in asthma. Journal of Applied Physiology, 2012, 113, 837-839. | 1.2 | 9 |
| 47 | Applicability of the sliding filament/crossbridge paradigm to smooth muscle. , 1999, 134, 7-61. | | 8 |
| 48 | Molecular Mechanisms for the Mechanical Modulation of Airway Responsiveness. Journal of Engineering and Science in Medical Diagnostics and Therapy, 2019, 2, . | 0.3 | 6 |
| 49 | Phenotype transitions induced by mechanical stimuli in airway smooth muscle are regulated by differential interactions of parvin isoforms with paxillin and Akt. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2020, 318, L1036-L1055. | 1.3 | 6 |
| 50 | Halothane alters the response of isolated airway smooth muscle to carbon dioxide. Respiration Physiology, 1992, 87, 255-268. | 2.8 | 5 |
| 51 | Type V Collagenâ€“induced Tolerance Prevents Airway Hyperresponsiveness. American Journal of Respiratory and Critical Care Medicine, 2013, 187, 454-457. | 2.5 | 5 |
| 52 | S100A4 is activated by RhoA and catalyses the polymerization of nonâ€muscle myosin, adhesion complex assembly and contraction in airway smooth muscle. Journal of Physiology, 2020, 598, 4573-4590. | 1.3 | 5 |
| 53 | Does airway inflation stretch the bronchial mucosal membrane?. Journal of Applied Physiology, 2005, 99, 2059-2060. | 1.2 | 4 |
| 54 | The proprotein convertase furin inhibits IL-13-induced inflammation in airway smooth muscle by regulating integrin-associated signaling complexes. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2021, 321, L102-L115. | 1.3 | 4 |

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|---|---|---|---|
| 55 | Last Word on Point: Alterations in airway smooth muscle phenotype do cause airway hyperresponsiveness in asthma. Journal of Applied Physiology, 2012, 113, 847-847. | 1.2 | 3 |
| 56 | Effect of CPAP on airway reactivity and airway inflammation in children with moderateâ€“severe asthma. Respirology, 2019, 24, 338-344. | 1.3 | 3 |
| 57 | Dynamics of Cytoskeletal and Contractile Protein Organization: An Emerging Paradigm for Airway Smooth Muscle Contraction. , 0, , 31-51. | | 2 |
| 58 | Airway Smooth Muscle and Asthma. , 2012, , 1359-1369. | | 1 |
| 59 | Promoting our early career members at AJP-Lung: The Editorial Board Fellowship Program and the Next Generation Physiologist Highlights section at our Journal. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2021, 321, L844-L846. | 1.3 | 1 |
| 60 | Integrin Linked Kinase (ILK) modulates SmMHC expression in tracheal smooth muscle tissues by regulating the activity of Serum Response Factor (SRF). FASEB Journal, 2007, 21, A1339. | 0.2 | 1 |
| 61 | Activation of Vinculin Induced by Cholinergic Stimulation Regulates Tension Development in Tracheal Smooth Muscle (TSM). FASEB Journal, 2009, 23, 781.10. | 0.2 | 1 |
| 62 | Role of Airway Smooth Muscle Mechanical Properties in the Regulation of Airway Caliber. , 2014, , 53-64. | | 1 |
| 63 | Phosphorylation of Vasodilatorâ€Stimulated Phosphoprotein (VASP) Regulates Contractility of Airway Smooth Muscle (ASM) Tissues by Regulating Actin Dynamics. FASEB Journal, 2011, 25, 1115.1. | 0.2 | 0 |
| 64 | The effects of Type 1 diabetes on colon smooth muscle. FASEB Journal, 2011, 25, 1123.1. | 0.2 | 0 |
| 65 | Conformational Changes in Vinculin Measured by Fluorescence Resonance Energy Transfer (FRET) during Airway Smooth Muscle (ASM) Contraction Depend on Vinculin Phosphorylation at Tyrosine 1065. FASEB Journal, 2013, 27, 923.11. | 0.2 | 0 |