

# Vinod Suresh

## List of Publications by Year in descending order

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Version: 2024-02-01

47  
papers

1,314  
citations

516710

16  
h-index

345221

36  
g-index

54  
all docs

54  
docs citations

54  
times ranked

2019  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Noninvasive Assessment of Collagen Gel Microstructure and Mechanics Using Multiphoton Microscopy. <i>Biophysical Journal</i> , 2007, 92, 2212-2222.   | 0.5 | 321       |
| 2  | The Effect of Matrix Density on the Regulation of 3-D Capillary Morphogenesis. <i>Biophysical Journal</i> , 2008, 94, 1930-1941.  | 0.5 | 234       |
| 3  | Image Correlation Spectroscopy of Multiphoton Images Correlates with Collagen Mechanical Properties. <i>Biophysical Journal</i> , 2008, 94, 2361-2373.  | 0.5 | 168       |
| 4  | An Optimised Human Cell Culture Model for Alveolar Epithelial Transport. <i>PLoS ONE</i> , 2016, 11, e0165225.  | 2.5 | 88        |
| 5  | Measurement of IL-13-Induced iNOS-Derived Gas Phase Nitric Oxide in Human Bronchial Epithelial Cells. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2007, 37, 97-104.     | 2.9 | 87        |
| 6  | Nitric oxide gas phase release in human small airway epithelial cells. <i>Respiratory Research</i> , 2009, 10, 3.   | 3.6 | 45        |
| 7  | Roadmap for cardiovascular circulation model. <i>Journal of Physiology</i> , 2016, 594, 6909-6928.  | 2.9 | 33        |
| 8  | Effect of heterogeneous ventilation and nitric oxide production on exhaled nitric oxide profiles. <i>Journal of Applied Physiology</i> , 2008, 104, 1743-1752.                                  | 2.5 | 27        |
| 9  | The effect of gravity on liquid plug propagation in a two-dimensional channel. <i>Physics of Fluids</i> , 2005, 17, 031507.   | 4.0 | 26        |
| 10 | A novel three-dimensional model to quantify metastatic melanoma invasion. <i>Molecular Cancer Therapeutics</i> , 2007, 6, 552-561.  | 4.1 | 25        |
| 11 | Peristaltic flow in the glymphatic system. <i>Scientific Reports</i> , 2020, 10, 21065.   | 3.3 | 25        |
| 12 | Effect of Gravity on Liquid Plug Transport Through an Airway Bifurcation Model. <i>Journal of Biomechanical Engineering</i> , 2005, 127, 798-806.   | 1.3 | 22        |
| 13 | An Experimental and Numerical Investigation of CO <sub>2</sub> Distribution in the Upper Airways During Nasal High Flow Therapy. <i>Annals of Biomedical Engineering</i> , 2016, 44, 3007-3019. | 2.5 | 22        |
| 14 | Arteries dominate volume changes during brief functional hyperemia: Evidence from mathematical modelling. <i>NeuroImage</i> , 2012, 62, 482-492.  | 4.2 | 19        |
| 15 | Using CellML with OpenCMISS to Simulate Multi-Scale Physiology. <i>Frontiers in Bioengineering and Biotechnology</i> , 2015, 2, 79.   | 4.1 | 19        |
| 16 | Stability of time-modulated electroosmotic flow. <i>Physics of Fluids</i> , 2004, 16, 2349-2356.  | 4.0 | 18        |
| 17 | Pulsatile flow and mass transport past a circular cylinder. <i>Physics of Fluids</i> , 2006, 18, 013102.  | 4.0 | 15        |
| 18 | Multiscale Modeling of Intracranial Aneurysms: Cell Signaling, Hemodynamics, and Remodeling. <i>IEEE Transactions on Biomedical Engineering</i> , 2011, 58, 2974-2977.                          | 4.2 | 12        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Resonant thermocapillary and buoyant flows with finite frequency gravity modulation. <i>Physics of Fluids</i> , 1999, 11, 2565-2576.   | 4.0 | 10        |
| 20 | Extra Permeability is Required to Model Dynamic Oxygen Measurements: Evidence for Functional Recruitment?. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2013, 33, 1402-1411.                     | 4.3 | 9         |
| 21 | A Mathematical Model of Alveolar Gas Exchange in Partial Liquid Ventilation. <i>Journal of Biomechanical Engineering</i> , 2005, 127, 46-59.   | 1.3 | 8         |
| 22 | Make it simple: long-term stable gradient generation in a microfluidic microdevice. <i>Biomedical Microdevices</i> , 2019, 21, 77.   | 2.8 | 8         |
| 23 | Computational Modeling of Glucose Uptake in the Enterocyte. <i>Frontiers in Physiology</i> , 2019, 10, 380.  | 2.8 | 7         |
| 24 | Experimental and Computational Studies of Peristaltic Flow in a Duodenal Model. <i>Fluids</i> , 2022, 7, 40.   | 1.7 | 7         |
| 25 | Computational modeling of epithelial fluid and ion transport in the parotid duct after transfection of human aquaporin-1. <i>American Journal of Physiology - Renal Physiology</i> , 2017, 312, G153-G163. | 3.4 | 6         |
| 26 | Stability of return thermocapillary flows under gravity modulation. <i>Physics of Fluids</i> , 2001, 13, 3155-3167.  | 4.0 | 5         |
| 27 | Improving estimates of the cerebral metabolic rate of oxygen from optical imaging data. <i>NeuroImage</i> , 2015, 106, 101-110.  | 4.2 | 5         |
| 28 | Development of an in situ procedure to evaluate the reticulo-rumen morphology of sheep selected for divergent methane emissions. <i>Animal</i> , 2019, 13, 542-548.  | 3.3 | 5         |
| 29 | Computational Modelling of Glucose Uptake by SGLT1 and Apical GLUT2 in the Enterocyte. <i>Frontiers in Physiology</i> , 2021, 12, 699152.  | 2.8 | 5         |
| 30 | Modelling Flow and Mixing in the Proximal Small Intestine. , 2020, 2020, 2496-2499.  |     | 4         |
| 31 | Influence of endothelial glycocalyx layer microstructure upon its role as a mechanotransducer. <i>Journal of Fluid Mechanics</i> , 2020, 893, .  | 3.4 | 4         |
| 32 | Development of a numerical model of surgical smoke during laparoscopy. <i>International Journal of Heat and Mass Transfer</i> , 2021, 175, 121253.   | 4.8 | 4         |
| 33 | A Novel Method for Time-Dependent Numerical Modeling of Gastric Motility Directly from Magnetic Resonance Imaging*. , 2020, 2020, 2384-2387.   |     | 3         |
| 34 | Permeability Properties of an In Vitro Model of the Alveolar Epithelium. <i>Cellular and Molecular Bioengineering</i> , 2021, 14, 653-659.   | 2.1 | 3         |
| 35 | Using flow simulation to inform the design and placement of remediation units in rivers. <i>Journal of the Royal Society of New Zealand</i> , 2021, 51, 212-241.   | 1.9 | 3         |
| 36 | A Mathematical Model of Salivary Gland Duct Cells. <i>Bulletin of Mathematical Biology</i> , 2022, 84, .   | 1.9 | 3         |

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|----|---|-----|-----------|
| 37 | Effect of sedatives on rumen motility in sheep. <i>Small Ruminant Research</i> , 2021, 196, 106284.   | 1.2 | 2         |
| 38 | Modelling uptake and transport of therapeutic agents through the lymphatic system. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2022, 25, 861-874.                  | 1.6 | 2         |
| 39 | Development of closed-loop modelling framework for adaptive respiratory pacemakers. <i>Computers in Biology and Medicine</i> , 2022, 141, 105136.   | 7.0 | 2         |
| 40 | Passive mechanical properties of ovine rumen tissue. <i>International Journal for Computational Methods in Engineering Science and Mechanics</i> , 2016, 17, 156-164.                       | 2.1 | 1         |
| 41 | Importance of irrotational components of swimming flows on the stability of a suspension of weakly-squirming microorganisms. <i>IMA Journal of Applied Mathematics</i> , 2018, 83, 720-742. | 1.6 | 0         |
| 42 | A formal analysis approach for verifying the design of respiratory pacing devices. , 2019, , .  |     | 0         |
| 43 | Activity of ENaC-activating serine proteases in human alveolar epithelial cells. , 2020, , .  |     | 0         |
| 44 | Computational Modelling of Glucose Uptake in the Enterocyte. <i>Physiome</i> , 2020, , .  | 0.3 | 0         |
| 45 | Computational Modelling of Glucose Uptake in the Enterocyte. <i>Physiome</i> , 2022, , .  | 0.3 | 0         |
| 46 | Computational Modelling of Glucose Uptake in the Enterocyte. <i>Physiome</i> , 2022, , .  | 0.3 | 0         |
| 47 | Computational Modelling of Glucose Uptake in the Enterocyte. <i>Physiome</i> , 2022, , .  | 0.3 | 0         |