## Mesoscale Simulation of Blood Flow in Small Vessels

Biophysical Journal 92, 1858-1877 DOI: 10.1529/biophysj.106.095042

**Citation Report** 

#	Article	IF	CITATIONS
1	An immersed boundary lattice Boltzmann approach to simulate deformable liquid capsules and its application to microscopic blood flows. Physical Biology, 2007, 4, 285-295.	1.8	161
2	Individual-based Modelling: An Essential Tool for Microbiology. Journal of Biological Physics, 2008, 34, 19-37.	1.5	77
3	Red blood cell aggregation and dissociation in shear flows simulated by lattice Boltzmann method. Journal of Biomechanics, 2008, 41, 47-55.	2.1	225
4	Immersed-boundary-type models of intravascular platelet aggregation. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 2087-2104.	6.6	133
5	Theoretical Modeling in Hemodynamics of Microcirculation. Microcirculation, 2008, 15, 699-714.	1.8	28
6	Finite-sized gas bubble motion in a blood vessel: Non-Newtonian effects. Physical Review E, 2008, 78, 036303.	2.1	18
7	Challenges in modelling biofluids in microchannels. , 2008, , .		1
8	A non-homogeneous constitutive model for human blood. Part 1. Model derivation and steady flow. Journal of Fluid Mechanics, 2008, 617, 327-354.	3.4	64
9	Noninertial lateral migration of vesicles in bounded Poiseuille flow. Physics of Fluids, 2008, 20, .	4.0	140
10	Lateral migration of vesicles in microchannels: effects of walls and shear gradient. Houille Blanche, 2009, 95, 112-119.	0.3	12
11	Computational fluid dynamics of aggregating red blood cells in postcapillary venules. Computer Methods in Biomechanics and Biomedical Engineering, 2009, 12, 385-397.	1.6	5
12	Systems biology to predict blood function. Journal of Thrombosis and Haemostasis, 2009, 7, 177-180.	3.8	22
13	Kinetic Theory Based Model for Blood Flow and its Viscosity. Annals of Biomedical Engineering, 2009, 37, 1534-1545.	2.5	45
14	A Particle Dynamic Model of Red Blood Cell Aggregation Kinetics. Annals of Biomedical Engineering, 2009, 37, 2299-2309.	2.5	30
15	A particle-based model for the transport of erythrocytes in capillaries. Chemical Engineering Science, 2009, 64, 4488-4497.	3.8	123
16	Vesicles and red blood cells in flow: From individual dynamics to rheology. Comptes Rendus Physique, 2009, 10, 775-789.	0.9	125
17	Dynamics of pulsatile flow in fractal models of vascular branching networks. Medical and Biological Engineering and Computing, 2009, 47, 763-772.	2.8	26
18	Red blood cell motions in high-hematocrit blood flowing through a stenosed microchannel. Journal of Biomechanics, 2009, 42, 838-843.	2.1	98

ARTICLE IF CITATIONS # Analysis of in vitro and in vivo bidirectional flow velocities by phase-resolved Doppler 19 4.1 12 Fourier-domain OCT. Sensors and Actuators A: Physical, 2009, 156, 14-21. Effects of erythrocyte deformability and aggregation on the cell free layer and apparent viscosity of 2.5 microscopic blood flows. Microvascular Research, 2009, 77, 265-272. Velocity-resolved 3D retinal microvessel imaging using single-pass flow imaging spectral domain 21 3.4 73 optical coherence tomography. Optics Express, 2009, 17, 4177. Three-dimensional computational modeling of multiple deformable cells flowing in microvessels. Physical Review E, 2009, 79, 046318. The Deformation Behavior of Multiple Red Blood Cells in a Capillary Vessel. Journal of Biomechanical 23 1.3 21 Engineering, 2009, 131, 074504. Patient-Specific Modeling of Cardiovascular Mechanics. Annual Review of Biomedical Engineering, 12.3 2009, 11, 109-134. Mathematical modelling of the cell-depleted peripheral layer in the steady flow of blood in a tube. 25 0.4 25 Biorheology, 2010, 47, 39-71. Red blood cell migration in microvessels. Biorheology, 2010, 47, 73-93. 0.4 26 24 Mesoscopic Blood Flow Simulation Considering Hematocrit-Dependent Viscosity. Journal of 27 0.3 10 Biomechanical Science and Engineering, 2010, 5, 578-590. Particle-Based Methods for Multiscale Modeling of Blood Flow in the Circulation and in Devices: 2.5 Challenges and Future Directions. Annals of Biomedical Engineering, 2010, 38, 1225-1235. A DLM/FD/IB method for simulating cell/cell and cell/particle interaction in microchannels. Chinese 29 0.4 11 Annals of Mathematics Series B, 2010, 31, 975-990. Computational model of whole blood exhibiting lateral platelet motion induced by red blood cells. 2.1 88 International Journal for Numerical Methods in Biomedical Engineering, 2010, 26, 471-487. Modeling of hemodynamics arising from malaria infection. Journal of Biomechanics, 2010, 43, 1386-1393.  $\mathbf{31}$ 2.1 74 A spectral boundary integral method for flowing blood cells. Journal of Computational Physics, 2010, 3.8 176 <u>229, 3726-3744.</u> Calculation of the effective UV dose absorbed by a flow of blood. Journal of Photochemistry and 33 3.8 1 Photobiology B: Biology, 2010, 98, 48-51. Blood Flow and Cell-Free Layer in Microvessels. Microcirculation, 2010, 17, 615-628. 1.8 Longitudinal optical imaging of tumor metabolism and hemodynamics. Journal of Biomedical Optics, 35 2.6 57 2010, 15, 011112. Numerical analysis of multiple red blood cells in capillary vessels., 2010, , .

#	Article	IF	CITATIONS
37	Pair collisions of fluid-filled elastic capsules in shear flow: Effects of membrane properties and polymer additives. Physics of Fluids, 2010, 22, .	4.0	40
38	Petascale Direct Numerical Simulation of Blood Flow on 200K Cores and Heterogeneous Architectures. , 2010, , .		93
39	Analysis of mechanisms for platelet near-wall excess under arterial blood flow conditions. Journal of Fluid Mechanics, 2011, 676, 348-375.	3.4	106
40	Computational Vision and Medical Image Processing. Computational Methods in Applied Sciences (Springer), 2011, , .	0.3	10
41	Predicting dynamics and rheology of blood flow: A comparative study of multiscale and low-dimensional models of red blood cells. Microvascular Research, 2011, 82, 163-170.	2.5	57
42	Effect of plasma expander viscosity on the cell free layer. Biorheology, 2011, 48, 115-125.	0.4	5
43	Multiscale modelling of erythrocytes in Stokes flow. Journal of Fluid Mechanics, 2011, 686, 299-337.	3.4	56
44	Effect of Suspending Viscosity on Red Blood Cell Dynamics and Blood Flows in Microvessels. Microcirculation, 2011, 18, 562-573.	1.8	32
45	A level set projection model of lipid vesicles in general flows. Journal of Computational Physics, 2011, 230, 8192-8215.	3.8	64
46	Spheres in the vicinity of a bifurcation: elucidating the Zweifach–Fung effect. Journal of Fluid Mechanics, 2011, 674, 359-388.	3.4	85
47	Numerical simulation of the motion of red blood cells and vesicles in microfluidic flows. Computing and Visualization in Science, 2011, 14, 167-180.	1.2	20
48	Adhesion behavior of endothelial progenitor cells to endothelial cells in simple shear flow. Acta Mechanica Sinica/Lixue Xuebao, 2011, 27, 1071-1080.	3.4	11
49	Mechanical behavior of the erythrocyte in microvessel stenosis. Science China Life Sciences, 2011, 54, 450-458.	4.9	12
50	A Model for Red Blood Cells in Simulations of Largeâ€scale Blood Flows. Macromolecular Theory and Simulations, 2011, 20, 548-561.	1.4	36
51	Structural and hydrodynamic simulation of an acute stenosis-dependent thrombosis model in mice. Journal of Biomechanics, 2011, 44, 1031-1039.	2.1	11
52	The rheology and microstructure of concentrated non-colloidal suspensions of deformable capsules. Journal of Fluid Mechanics, 2011, 685, 202-234.	3.4	54
53	Segregation of Flowing Blood: Mathematical Description. Mathematical Modelling of Natural Phenomena, 2011, 6, 281-319.	2.4	8
54	ORIENTATIONAL STRESS TENSOR OF POLYMER SOLUTION WITH APPLICATIONS TO BLOOD FLOW. Modern Physics Letters B, 2011, 25, 1157-1166.	1.9	0

#	Article	IF	CITATIONS
55	Parallel Simulation of Cellular Flow in Microvessels Using a Particle Method. Journal of Biomechanical Science and Engineering, 2012, 7, 57-71.	0.3	9
56	A Computational Blood Flow Analysis in a Capillary Vessel including Multiple Red Blood Cells and Platelets. Journal of Biomechanical Science and Engineering, 2012, 7, 72-83.	0.3	20
57	Multiscale Systems Biology and Physics of Thrombosis Under Flow. Annals of Biomedical Engineering, 2012, 40, 2355-2364.	2.5	59
58	Effect of lateral position on RBC deformation using immersed boundary lattice-Boltzmann method. , 2012, , .		Ο
59	Directed gliaâ€assisted angiogenesis in a mature neurosensory structure: Pericytes mediate an adaptive response in human dental pulp that maintains bloodâ€barrier function. Journal of Comparative Neurology, 2012, 520, 3803-3826.	1.6	21
60	An immersed boundary-lattice Boltzmann model for simulation of malaria-infected red blood cell in micro-channel. Scientia Iranica, 2012, 19, 1329-1336.	0.4	24
61	Red Blood Cell Flow in the Cardiovascular System: A Fluid Dynamics Perspective. Critical Reviews in Biomedical Engineering, 2012, 40, 427-440.	0.9	9
62	Blood plasma flow past a red blood cell: mathematical modelling and analytical treatment. Mathematical Methods in the Applied Sciences, 2012, 35, 1547-1563.	2.3	17
63	Numerical simulation of lateral migration of red blood cells in Poiseuille flows. International Journal for Numerical Methods in Fluids, 2012, 68, 1393-1408.	1.6	26
64	Simulation of flowâ€flexible body interactions with large deformation. International Journal for Numerical Methods in Fluids, 2012, 70, 1089-1102.	1.6	3
65	Two-dimensional lattice Boltzmann study of red blood cell motion through microvascular bifurcation: cell deformability and suspending viscosity effects. Biomechanics and Modeling in Mechanobiology, 2012, 11, 575-583.	2.8	44
66	Modeling and numerical simulation of blood flow using the theory of interacting continua. International Journal of Non-Linear Mechanics, 2012, 47, 506-520.	2.6	26
67	Numerical simulation of red blood cell behavior in a stenosed arteriole using the immersed boundary–lattice Boltzmann method. International Journal for Numerical Methods in Biomedical Engineering, 2012, 28, 239-256.	2.1	25
68	Springâ€networkâ€based model of a red blood cell for simulating mesoscopic blood flow. International Journal for Numerical Methods in Biomedical Engineering, 2013, 29, 114-128.	2.1	38
69	A computational study of a capsule lateral migration in microchannel flow. Acta Mechanica Sinica/Lixue Xuebao, 2013, 29, 513-525.	3.4	4
70	Inertia effect on deformation of viscoelastic capsules in microscale flows. Microfluidics and Nanofluidics, 2013, 14, 817-829.	2.2	19
71	Numerical simulation of blood flows with non-uniform distribution of erythrocytes and platelets. Russian Journal of Numerical Analysis and Mathematical Modelling, 2013, 28, .	0.6	9
72	Where do the platelets go? A simulation study of fully resolved blood flow through aneurysmal vessels. Interface Focus, 2013, 3, 20120089.	3.0	44

#	Article	IF	CITATIONS
73	Shear Stress Variation and Plasma Viscosity Effect in Microcirculation. , 2013, , 349-390.		0
74	Immersed Boundary Method for Variable Viscosity and Variable Density Problems Using Fast Constant-Coefficient Linear Solvers I: Numerical Method and Results. SIAM Journal of Scientific Computing, 2013, 35, B1132-B1161.	2.8	51
75	Two-phase model for prediction of cell-free layer width in blood flow. Microvascular Research, 2013, 85, 68-76.	2.5	7
76	On the Simultaneous Motions of Many Blood Cells. Biophysical Journal, 2013, 104, 1839.	0.5	1
77	Lift and Down-Gradient Shear-Induced Diffusion in Red Blood Cell Suspensions. Physical Review Letters, 2013, 110, 108101.	7.8	88
78	Mesoscale modeling: solving complex flows in biology and biotechnology. Trends in Biotechnology, 2013, 31, 426-434.	9.3	64
79	A conservative numerical method for the Cahn–Hilliard equation with Dirichlet boundary conditions in complex domains. Computers and Mathematics With Applications, 2013, 65, 102-115.	2.7	46
80	Numerical simulation of the transient shape of the red blood cell in microcapillary flow. Journal of Fluids and Structures, 2013, 36, 174-183.	3.4	18
81	Front tracking simulation of cell detachment dynamic mechanism in microfluidics. Chemical Engineering Science, 2013, 97, 394-405.	3.8	16
82	NUMERICAL SIMULATION OF CELL ADHESION AND DETACHMENT IN MICROFLUIDICS. Journal of Mechanics in Medicine and Biology, 2013, 13, 1350002.	0.7	14
83	Channel Flow of a Mixture of Granular Materials and a Fluid. , 2013, , .		2
84	Antibody-based Blood Bioparticle Capture and Separation Using Microfluidics for Global Health. , 2013, , 417-450.		0
85	Dynamics and rheology of vesicle suspensions in wall-bounded shear flow. Europhysics Letters, 2013, 102, 28004.	2.0	19
86	Erythrocyte Rheology in a Symmetrically Constricted Microchannel. Advanced Materials Research, 0, 647, 293-298.	0.3	0
87	Erythrocyte hemodynamics in stenotic microvessels: A numerical investigation. Physical Review E, 2013, 88, 042711.	2.1	5
88	EFFECT OF FLOW ACCELERATION ON DEFORMATION AND ADHESION DYNAMICS OF CAPTURED CELLS. Journal of Mechanics in Medicine and Biology, 2013, 13, 1340002.	0.7	1
89	Development of a numerical model for single red blood cell motions in stationary fluid in the presence of uniform magnetic field. Progress in Computational Fluid Dynamics, 2013, 13, 224.	0.2	0
90	A Micromechanical Model for Shear-Induced Platelet Damage in Capillaries Within Gray Matter. , 2013, ,		0

#	Article	IF	CITATIONS
91	Studying the Blood Plasma Flow past a Red Blood Cell with the Mathematical Method of Kelvin's Transformation. International Journal of Monitoring and Surveillance Technologies Research, 2014, 2, 57-66.	0.3	0
92	Microâ€scale blood particulate dynamics using a nonâ€uniform rational Bâ€splineâ€based isogeometric analysis. International Journal for Numerical Methods in Biomedical Engineering, 2014, 30, 1437-1459.	2.1	9
93	Two-dimensional numerical study of flow dynamics of a nucleated cell tethered under shear flow. Chemical Engineering Science, 2014, 119, 236-244.	3.8	12
94	Fluid-Structure Interaction and Biomedical Applications. Advances in Mathematical Fluid Mechanics, 2014, , .	0.1	41
95	Dynamical and rheological properties of soft colloid suspensions. Current Opinion in Colloid and Interface Science, 2014, 19, 594-610.	7.4	68
96	Mathematical Models for Blood Coagulation. Advances in Mathematical Fluid Mechanics, 2014, , 483-569.	0.1	8
97	Numerical Modelling of Cell Distribution in Blood Flow. Mathematical Modelling of Natural Phenomena, 2014, 9, 69-84.	2.4	29
98	A cellular scale numerical study of the effect of mechanical properties of erythrocytes on the near-wall motion of platelets. Acta Mechanica Sinica/Lixue Xuebao, 2014, 30, 274-280.	3.4	3
99	A numerical study of blood flow using mixture theory. International Journal of Engineering Science, 2014, 76, 56-72.	5.0	35
100	Validation of an efficient two-dimensional model for dense suspensions of red blood cells. International Journal of Modern Physics C, 2014, 25, 1441005.	1.7	16
101	Hematocrit, viscosity and velocity distributions of aggregating and non-aggregating blood in a bifurcating microchannel. Biomechanics and Modeling in Mechanobiology, 2014, 13, 259-273.	2.8	51
102	Fluid vesicles in flow. Advances in Colloid and Interface Science, 2014, 208, 129-141.	14.7	84
103	Computational Biorheology of Human Blood Flow in Health and Disease. Annals of Biomedical Engineering, 2014, 42, 368-387.	2.5	73
104	A file of red blood cells in tube flow: A three-dimensional numerical study. Journal of Applied Physics, 2014, 116, 124703.	2.5	32
105	On the coefficients of the interaction forces in a two-phase flow of a fluid infused with particles. International Journal of Non-Linear Mechanics, 2014, 59, 76-82.	2.6	18
106	Synergy between shear-induced migration and secondary flows on red blood cells transport in arteries: considerations on oxygen transport. Journal of the Royal Society Interface, 2014, 11, 20140403.	3.4	18
107	Rheology of dense suspensions of elastic capsules: normal stresses, yield stress, jamming and confinement effects. Soft Matter, 2014, 10, 4360.	2.7	47
108	Multiscale modeling of blood flow: from single cells to blood rheology. Biomechanics and Modeling in Mechanobiology, 2014, 13, 239-258.	2.8	200

#	Article	IF	CITATIONS
109	Effect of Variation in hemorheology between human and animal blood on the binding efficacy of vascular-targeted carriers. Scientific Reports, 2015, 5, 11631.	3.3	36
110	Association of Early Atherosclerosis with Vascular Wall Shear Stress in Hypercholesterolemic Zebrafish. PLoS ONE, 2015, 10, e0142945.	2.5	10
111	Cell Distribution and Segregation Phenomena During Blood Flow. Biological and Medical Physics Series, 2015, , 399-435.	0.4	5
112	Fluid dynamics of the droplet impact processes in cell printing. Microfluidics and Nanofluidics, 2015, 18, 569-585.	2.2	16
113	Dynamics of blood flow: modeling of the Fåhræus–Lindqvist effect. Journal of Biological Physics, 2015, 41, 313-326.	1.5	34
114	Multi-scale biological and physical modelling of the tumour micro-environment. Drug Discovery Today: Disease Models, 2015, 16, 7-15.	1.2	1
115	Study of blood flow in several benchmark micro-channels using a two-fluid approach. International Journal of Engineering Science, 2015, 95, 49-59.	5.0	37
116	The effects of weight loss surgery on blood rheology in severely obese patients. Surgery for Obesity and Related Diseases, 2015, 11, 1307-1314.	1.2	13
117	Numerical investigation on the structural characteristics of multiple RBCs in a stenotic microcapillary under plasma-alcohol solution. Korea Australia Rheology Journal, 2015, 27, 163-171.	1.7	1
118	Stokes flow applied to the sedimentation of a red blood cell. Quarterly of Applied Mathematics, 2015, 73, 511-523.	0.7	9
119	A Simple Method for the Investigation of Cell Separation Effects of Blood With Physiological Hematocrit Values. Artificial Organs, 2015, 39, 432-440.	1.9	5
120	A review of numerical methods for red blood cell flow simulation. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 130-140.	1.6	48
121	Fluid lipid membranes: From differential geometry to curvature stresses. Chemistry and Physics of Lipids, 2015, 185, 11-45.	3.2	217
122	Hemodynamics in the Microcirculation and in Microfluidics. Annals of Biomedical Engineering, 2015, 43, 238-257.	2.5	29
123	A Two-Dimensional Numerical Investigation of Transport of Malaria-Infected Red Blood Cells in Stenotic Microchannels. BioMed Research International, 2016, 2016, 1-16.	1.9	6
124	Predicting bifurcation angle effect on blood flow in the microvasculature. Microvascular Research, 2016, 108, 22-28.	2.5	20
125	Modeling microcirculatory blood flow: current state and future perspectives. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2016, 8, 157-168.	6.6	35
126	A micro-scale simulation of red blood cell passage through symmetric and asymmetric bifurcated vessels. Scientific Reports, 2016, 6, 20262.	3.3	36

		CITATION R	EPORT	
# 127	ARTICLE Methods of Blood Flow Modelling. Mathematical Modelling of Natural Phenomena, 201	16, 11, 1-25.	IF 2.4	CITATIONS
128	Numerical Modeling of the Red Blood Cell Motion/Deformation in the Capillary. IFMBE 2016, , 624-633.	Proceedings,	0.3	0
129	Complex Flow Simulation via Lattice Boltzmann Method. , 2016, , 38-1-38-30.			1
130	Microvascular contrast enhancement in optical coherence tomography using microbub of Biomedical Optics, 2016, 21, 076014.	bles. Journal	2.6	14
131	Simulation of the motion of two elastic membranes in Poiseuille shear flow via a combi boundary-lattice Boltzmann method. Journal of Computational Science, 2016, 12, 51-6		2.9	7
132	Continuum modeling of hydrodynamic particle–particle interactions in microfluidic high-concentration suspensions. Lab on A Chip, 2016, 16, 1178-1188.		6.0	33
133	Particle-based simulations of red blood cells—A review. Journal of Biomechanics, 2016	5, 49, 2255-2266.	2.1	117
134	Measurement and Analysis of Lymphocyte Deformation in Microchannel Contraction F Compound Drop Model. Flow, Turbulence and Combustion, 2016, 96, 245-260.	lows Using a	2.6	3
135	Computational study of blood flow in microchannels. Journal of Computational and Ap Mathematics, 2016, 292, 174-187.	plied	2.0	18
136	Red blood cell (RBC) aggregation and its influence on non-Newtonian nature of blood i microvasculature. Journal of Modeling in Mechanics and Materials, 2017, 1, .	n	1.8	0
137	Variation in wall shear stress in channel networks of zebrafish models. Journal of the Ro Interface, 2017, 14, 20160900.	oyal Society	3.4	13
138	Numerical simulation of motion and deformation of healthy and sick red blood cell thro constricted vessel using hybrid lattice Boltzmann-immersed boundary method. Compu- Biomechanics and Biomedical Engineering, 2017, 20, 737-749.		1.6	16
139	Direct numerical simulation of particulate flows with an overset grid method. Journal of Computational Physics, 2017, 343, 414-431.	f	3.8	44
140	Transport of platelets induced by red blood cells based on mixture theory. Internationa Engineering Science, 2017, 118, 16-27.	l Journal of	5.0	18
141	Inertial migration and axial control of deformable capsules. Soft Matter, 2017, 13, 354	4-3555.	2.7	49
142	Hemomath. Modeling, Simulation and Applications, 2017, , .		1.3	20
143	Numerical studies of a red blood cell in rectangular microchannels. Journal of Applied P 122, 084701.	hysics, 2017,	2.5	22
144	Capsule equilibrium positions near channel center in Poiseuille flow. Chemical Engineer 2017, 172, 603-611.	ing Science,	3.8	6

#	Article	IF	CITATIONS
145	Modeling of Biomechanics and Biorheology of Red Blood Cells in Type 2 Diabetes Mellitus. Biophysical Journal, 2017, 113, 481-490.	0.5	54
146	A 3D isogeometric BE–FE analysis with dynamic remeshing for the simulation of a deformable particle in shear flows. Computer Methods in Applied Mechanics and Engineering, 2017, 326, 70-101.	6.6	14
147	Red blood cell motion and deformation in a curved microvessel. Journal of Biomechanics, 2017, 65, 12-22.	2.1	25
148	A Review of Hemolysis Prediction Models for Computational Fluid Dynamics. Artificial Organs, 2017, 41, 603-621.	1.9	72
149	Fast Simulation of Lipid Vesicle Deformation Using Spherical Harmonic Approximation. Communications in Computational Physics, 2017, 21, 40-64.	1.7	1
150	Hybrid smoothed dissipative particle dynamics and immersed boundary method for simulation of red blood cells in flows. Physical Review E, 2017, 95, 063314.	2.1	49
151	Boundary Conditions for Fluid-Structure Interaction. Graduate Texts in Physics, 2017, , 433-491.	0.2	0
152	NURBS-based numerical proxies for red blood cells and circulating tumor cells in microscale blood flow. Computer Methods in Applied Mechanics and Engineering, 2017, 316, 646-667.	6.6	24
153	Comparison of sharp and smoothed interface methods for simulation of particulate flows II: Inertial and added mass effects. Computers and Fluids, 2017, 143, 103-119.	2.5	14
154	Numerical investigation on red blood cell dynamics in microflow: Effect of cell deformability. Clinical Hemorheology and Microcirculation, 2017, 65, 105-117.	1.7	5
156	The Lattice Boltzmann Modeling. , 2018, , 391-414.		0
157	Effects of deformability of RBCs on their dynamics and blood flow passing through a stenosed microvessel: an immersed boundary-lattice Boltzmann approach. Theoretical and Computational Fluid Dynamics, 2018, 32, 91-107.	2.2	12
158	Hydrodynamic interaction of elastic membranes in a stenosed microchannel. Applied Mathematical Modelling, 2018, 54, 361-377.	4.2	2
159	Mesoscopic modelling and simulation of soft matter. Soft Matter, 2018, 14, 9-26.	2.7	34
161	Flow patterns and red blood cell dynamics in a U-bend. Journal of Applied Physics, 2018, 124, .	2.5	12
162	Cell-resolved blood flow simulations of saccular aneurysms: effects of pulsatility and aspect ratio. Journal of the Royal Society Interface, 2018, 15, 20180485.	3.4	13
164	Quantifying Platelet Margination in Diabetic BloodÂFlow. Biophysical Journal, 2018, 115, 1371-1382.	0.5	51
165	Study of the motion of a spheroidal drop in a linear shear flow. Journal of Mechanical Science and Technology, 2018, 32, 2059-2067.	1.5	9

#	Article	IF	CITATIONS
166	Structural modelling of the cardiovascular system. Biomechanics and Modeling in Mechanobiology, 2018, 17, 1217-1242.	2.8	22
167	Vascular-targeted particle binding efficacy in the presence of rigid red blood cells: Implications for performance in diseased blood. Biomicrofluidics, 2018, 12, 042217.	2.4	8
168	Heterogeneous blood flow in microvessels with applications to nanodrug transport and mass transfer into tumor tissue. Biomechanics and Modeling in Mechanobiology, 2019, 18, 99-110.	2.8	6
169	Simulation of RBC dynamics using combined low dimension, immersed boundary and lattice Boltzmann methods. Molecular Simulation, 2019, , 1-6.	2.0	2
170	EFFECT OF STENOSIS SEVERITY ON SHEAR-INDUCED DIFFUSION OF RED BLOOD CELLS IN CORONARY ARTERIES. Journal of Mechanics in Medicine and Biology, 2019, 19, 1950034.	0.7	13
171	The effect of deformability on the microscale flow behavior of red blood cell suspensions. Physics of Fluids, 2019, 31, .	4.0	34
172	Optimizing Parallel Performance of the Cell Based Blood Flow Simulation Software HemoCell. Lecture Notes in Computer Science, 2019, , 537-547.	1.3	6
173	Assessment of intravoxel incoherent motion MRI with an artificial capillary network: analysis of biexponential and phaseâ€distribution models. Magnetic Resonance in Medicine, 2019, 82, 1373-1384.	3.0	12
174	Electrophoretic transport and dynamic deformation of bioâ€vesicles. Electrophoresis, 2019, 40, 2584-2591.	2.4	10
175	A streak lengthâ€based method for quantifying red blood cell flow in skeletal muscle arteriolar networks. Microcirculation, 2019, 26, e12532.	1.8	1
176	Shear stress in the microvasculature: influence of red blood cell morphology and endothelial wall undulation. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1095-1109.	2.8	15
177	A Two-Zone Shear-Induced Red Blood Cell Migration Model for Blood Flow in Microvessels. Frontiers in Physics, 2019, 7, .	2.1	5
178	Model Particulate Drug Carriers Modulate Leukocyte Adhesion in Human Blood Flows. ACS Biomaterials Science and Engineering, 2019, 5, 6530-6540.	5.2	9
179	Numerical Simulation of Tank-Treading and Tumbling Motion of Red Blood Cell in the Poiseuille Flow in a Microchannel With and Without Obstacle. Iranian Journal of Science and Technology - Transactions of Mechanical Engineering, 2019, 43, 627-638.	1.3	6
180	Model and simulation of Placlitaxel released performed by a nanobot inside a capillary. Physica A: Statistical Mechanics and Its Applications, 2019, 518, 190-209.	2.6	0
181	A non-linear fluid suspension model for blood flow. International Journal of Non-Linear Mechanics, 2019, 109, 32-39.	2.6	7
182	Kinematic and dynamic forcing strategies for predicting the transport of inertial capsules via a combined lattice Boltzmann – Immersed Boundary method. Computers and Fluids, 2019, 180, 41-53.	2.5	20
183	A material modeling approach for the effective response of planar soft tissues for efficient computational simulations. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 89, 168-198.	3.1	18

#	Article	IF	CITATIONS
184	A reduced-order model for deformable particles with application in bio-microfluidics. Computational Particle Mechanics, 2020, 7, 593-601.	3.0	9
185	Parallel modeling of cell suspension flow in complex micro-networks with inflow/outflow boundary conditions. Journal of Computational Physics, 2020, 401, 109031.	3.8	24
186	Numerical simulation of transport and adhesion of thermogenic nano-carriers in microvessels. Soft Matter, 2020, 16, 10345-10357.	2.7	9
187	Grain Shape Dynamics for Molecular Simulations at the Mesoscale. Advanced Theory and Simulations, 2020, 3, 2000124.	2.8	5
188	A Molecular Communications System for Live Detection of Hyperviscosity Syndrome. IEEE Transactions on Nanobioscience, 2020, 19, 410-421.	3.3	16
189	Identifying vessel branching from fluid stresses on microscopic robots. , 2020, , 171-200.		0
190	Simulation of blood flow in a sudden expansion channel and a coronary artery. Journal of Computational and Applied Mathematics, 2020, 376, 112856.	2.0	14
191	A pair of particles in inertial microfluidics: effect of shape, softness, and position. Soft Matter, 2021, 17, 4804-4817.	2.7	24
192	Lingering Dynamics in Microvascular Blood Flow. Biophysical Journal, 2021, 120, 432-439.	0.5	12
193	The thermal performance of five different viscosity models in the kidney blood vessel with multi-phase mixture of non-Newtonian fluid models using computational fluid dynamics. Archive of Applied Mechanics, 2021, 91, 1887-1895.	2.2	5
194	Numerical Simulations of Red-Blood Cells in Fluid Flow: A Discrete Multiphysics Study. ChemEngineering, 2021, 5, 33.	2.4	0
195	Oxycytosis and the role of triboelectricity and oxidation in bacteria clearing from the bloodstream. European Journal of Microbiology and Immunology, 2021, 11, 23-28.	2.8	1
196	A Molecular Communications System for the Detection of Inflammatory Levels Related to COVID-19 Disease. IEEE Transactions on Molecular, Biological, and Multi-Scale Communications, 2021, 7, 165-174.	2.1	7
197	A Molecular Communication Detection Method for the Deformability of Erythrocyte Membrane in Blood Vessels. IEEE Transactions on Nanobioscience, 2021, 20, 387-395.	3.3	6
198	Blood Coagulation. Modeling, Simulation and Applications, 2017, , 79-158.	1.3	3
199	Microvascular Cell Depletion Model. IFMBE Proceedings, 2009, , 2095-2098.	0.3	1
200	Microscale Flow Dynamics of Red Blood Cells in Microchannels: An Experimental and Numerical Analysis. Computational Methods in Applied Sciences (Springer), 2011, , 297-309.	0.3	10
201	Optimal cell transport in straight channels and networks. Physical Review Fluids, 2018, 3, .	2.5	7

	C	itation Report	
#	Article	IF	CITATIONS
202	Electrodeformation of vesicles suspended in a liquid medium. Physical Review Fluids, 2018, 3, .	2.5	15
203	Inertial migration of a deformable particle in pipe flow. Physical Review Fluids, 2019, 4, .	2.5	31
204	Blood Flow Behavior in Microchannels: Past, Current and Future Trends. , 2012, , 513-547.		25
205	Immersed boundary conditions for high order CAA solvers - Aeroacoustics installation effects assessment. , 2017, , .		6
206	Numerical Simulation of Thrombotic Occlusion in Tortuous Arterioles. , 2017, 2, 095-111.		2
207	Mathematical methods for modeling the microcirculation. AIMS Biophysics, 2017, 4, 362-399.	0.6	18
208	Visualizing trypanosomes in a vertebrate host reveals novel swimming behaviours, adaptations and attachment mechanisms. ELife, 2019, 8, .	6.0	25
209	Modelling of embolus transport and embolic stroke. , 2011, , .		2
210	Mechanics of Biofluids and Computational Analysis. , 2012, , 87-140.		0
211	A Full-Eulerian Approach for the Fluid–Structure Interaction Problem. Lecture Notes in Computational Vision and Biomechanics, 2014, , 47-74.	0.5	0
214	Numerical Studies of Shape Recovery of a Red Blood Cell Using Dissipative Particle Dynamics. International Journal of Computational Methods, 2020, 17, 1950032.	1.3	0
215	Recent advances in blood rheology: a review. Soft Matter, 2021, 17, 10591-10613.	2.7	54
216	A Heterogeneous Multi-scale Model for Blood Flow. Lecture Notes in Computer Science, 2020, , 403-409.	1.3	0
218	Numerical Simulation of Thrombotic Occlusion in Tortuous Arterioles. Journal of Cardiology and Cardiovascular Medicine, 2017, 2, 95-111.	0.2	1
219	Shape transformations of red blood cells in the capillary and their possible connections to oxygen transportation. Journal of Biological Physics, 2022, 48, 79-92.	1.5	0
220	Numerical investigation of blood flow and red blood cell rheology: the magnetic field effect. Electromagnetic Biology and Medicine, 2022, , 1-13.	1.4	0
221	Effects of coupling of mass transport and blood viscosity models for microchannel flows. Journal of Non-Newtonian Fluid Mechanics, 2022, 302, 104754.	2.4	4
222	Dependence of cell-free-layer width on rheological parameters: Combining empirical data on flow separation at microvascular bifurcations with geometrical considerations. Physical Review E, 2022, 105, 014414.	2.1	3

#	Article	IF	CITATIONS
223	柔性载è•粳米颗粒在æ⁻›ç»†èj€ç®jä,输è¿ç‰¹æ€§çš,,数值æ¨j拟ç"ç©¶. Scientia Sinica Vitae, 2	20222, , .	0
224	The effect of stiffened diabetic red blood cells on wall shear stress in a reconstructed 3D microaneurysm. Computer Methods in Biomechanics and Biomedical Engineering, 2022, 25, 1691-1709.	1.6	13
225	Blood cell distribution in small and large vessels: effects of wall and rotating motion of red blood cells. Journal of Biomechanics, 2022, 137, 111081.	2.1	1
226	Erythrocytes number in healthy individuals and anaemia laminar blood flow in the Ulnar vein in both men and women: The analysis of multi-phase heat transfer for medical application. AEJ - Alexandria Engineering Journal, 2022, 61, 10099-10107.	6.4	1
227	Finite element analysis of inertial migration of polymer vesicles in microtubule flow. Wuli Xuebao/Acta Physica Sinica, 2022, .	0.5	0
229	Cellular Blood Flow Modeling with Smoothed Dissipative Particle Dynamics. , 2022, , 1-40.		0
230	Effect of constitutive law on the erythrocyte membrane response to large strains. Computers and Mathematics With Applications, 2023, 132, 145-160.	2.7	2
231	Modeling Reactive Hyperemia to Better Understand and Assess Microvascular Function: A Review of Techniques. Annals of Biomedical Engineering, 2023, 51, 479-492.	2.5	2
232	Accurate modeling of blood flow in a micro-channel as a non-homogeneous mixture using continuum approach-based diffusive flux model. Physics of Fluids, 2023, 35, .	4.0	2
233	Establishing metrics to quantify spatial similarity in spherical and red blood cell distributions. Journal of Computational Science, 2023, , 102060.	2.9	0
234	Shape dynamics of capsules in two phase-shifted orthogonal ultrasonic standing waves: a numerical investigation. Journal of Fluid Mechanics, 2023, 964, .	3.4	1
235	A fully physiologically-informed time- and rate-dependent hemorheological constitutive model. Journal of Rheology, 2023, 67, 775.	2.6	1
236	Non-Convex Particle-in-Cell Model for the Mathematical Study of the Microscopic Blood Flow. Mathematics, 2023, 11, 2156.	2.2	0
237	Flow Heterogeneity and Factors Contributing to the Variability in Retinal Capillary Blood Flow. , 2023, 64, 15.		2
238	A Cartesian-octree adaptive front-tracking solver for immersed biological capsules in large complex domains. Journal of Computational Physics, 2023, 492, 112424.	3.8	2
239	Experimental perspective on the mechanisms for near-wall accumulation of platelet-size particles in pressure-driven red blood cell suspension flows. Physical Review Fluids, 2023, 8, .	2.5	0
241	Characterizing Flow and Transport in Biological Vascular Systems: A Review from Physiological and Chemical Engineering Perspectives. Industrial & Engineering Chemistry Research, 2024, 63, 4-36.	3.7	0
242	A continuum model for magnetic particle flows in microfluidics applicable from dilute to packed suspensions. Lab on A Chip, 0, , .	6.0	0

	CIT	ATION REPORT	
#	Article	IF	CITATIONS
243	Inertial migration of polymer micelles in a square microchannel. Soft Matter, 2024, 20, 1760-1766.	2.7	0
244	Modeling of three-dimensional blood flow in microchannels using a two-fluid method. Physics of Fluids, 2024, 36, .	4.0	0