Aleksander S Popel

List of Publications by Year in Descending Order

295 papers	11,080 citations	56 h-index	88 g-index
322 ext. papers	12,749 ext. citations	4.4 avg, IF	6.67 L-index

#	Paper	IF	Citations
295	Dynamic Multiscale Regulation of Perfusion Recovery in Experimental Peripheral Arterial Disease: A Mechanistic Computational Model.. *JACC Basic To Translational Science*, **2022**, 7, 28-50	8.7	1
294	Systems biology modeling of endothelial cell and macrophage signaling in angiogenesis in human diseases **2022**, 163-172		
293	Quantitative Systems Pharmacology Modeling of PBMC-Humanized Mouse to Facilitate Preclinical Immuno-oncology Drug Development. *ACS Pharmacology and Translational Science*, **2021**, 4, 213-225	5.9	2
292	Peptides that immunoactivate the tumor microenvironment. *Biochimica Et Biophysica Acta: Reviews on Cancer*, **2021**, 1875, 188486	11.2	5
291	A data-driven computational model enables integrative and mechanistic characterization of dynamic macrophage polarization. *IScience*, **2021**, 24, 102112	6.1	9
290	Quantitative systems pharmacology model predictions for efficacy of atezolizumab and nab-paclitaxel in triple-negative breast cancer **2021**, 9,		4
289	A systems biology model of junctional localization and downstream signaling of the Ang-Tie signaling pathway. *Npj Systems Biology and Applications*, **2021**, 7, 34	5	2
288	Protocol for simulating macrophage signal transduction and phenotype polarization using a large-scale mechanistic computational model. *STAR Protocols*, **2021**, 2, 100739	1.4	1
287	Predictive models of response to neoadjuvant chemotherapy in muscle-invasive bladder cancer using nuclear morphology and tissue architecture. *Cell Reports Medicine*, **2021**, 2, 100382	18	1
286	Integrating single cell sequencing with a spatial quantitative systems pharmacology model spQSP for personalized prediction of triple-negative breast cancer immunotherapy response. *ImmunoInformatics*, **2021**, 1-2,		4
285	Systems biology of angiogenesis signaling: Computational models and omics.. *WIREs Mechanisms of Disease*, **2021**, e1550	0.3	1
284	Regulation of the tumor immune microenvironment and vascular normalization in TNBC murine models by a novel peptide. *OncoImmunology*, **2020**, 9, 1760685	7.2	5
283	A Quantitative Systems Pharmacology Model of T Cell Engager Applied to Solid Tumor. *AAPS Journal*, **2020**, 22, 85	3.7	9
282	Cytokines secreted by stromal cells in TNBC microenvironment as potential targets for cancer therapy. *Cancer Biology and Therapy*, **2020**, 21, 560-569	4.6	8
281	Conducting a Virtual Clinical Trial in HER2-Negative Breast Cancer Using a Quantitative Systems Pharmacology Model With an Epigenetic Modulator and Immune Checkpoint Inhibitors. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 141	5.8	17
280	Immunoactivating the tumor microenvironment enhances immunotherapy as predicted by integrative computational model. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 4447-4449	11.5	13
279	Mathematical Models of Transport Phenomena in Normal and Neoplastic Tissue **2020**, 169-183		1

278	Simulations of Combination Therapy in Hepatocellular Carcinoma Using a Quantitative Systems Pharmacology Model. *FASEB Journal*, **2020**, 34, 1-1	0.9	
277	QSP-IO: A Quantitative Systems Pharmacology Toolbox for Mechanistic Multiscale Modeling for Immuno-Oncology Applications. *CPT: Pharmacometrics and Systems Pharmacology*, **2020**, 9, 484-497	4.5	11
276	Suppression of Ocular Vascular Inflammation through Peptide-Mediated Activation of Angiopoietin-Tie2 Signaling. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	4
275	Digital Pathology Analysis Quantifies Spatial Heterogeneity of CD3, CD4, CD8, CD20, and FoxP3 Immune Markers in Triple-Negative Breast Cancer. *Frontiers in Physiology*, **2020**, 11, 583333	4.6	12
274	Combination therapy with T cell engager and PD-L1 blockade enhances the antitumor potency of T cells as predicted by a QSP model **2020**, 8,		12
273	Multiscale Agent-Based and Hybrid Modeling of the Tumor Immune Microenvironment. *Processes*, **2019**, 7,	2.9	61
272	Mechanistic Computational Models of MicroRNA-Mediated Signaling Networks in Human Diseases. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	13
271	simulation of a clinical trial with anti-CTLA-4 and anti-PD-L1 immunotherapies in metastatic breast cancer using a systems pharmacology model. *Royal Society Open Science*, **2019**, 6, 190366	3.3	26
270	Dynamic Changes in Microvascular Flow Conductivity and Perfusion After Myocardial Infarction Shown by Image-Based Modeling. *Journal of the American Heart Association*, **2019**, 8, e011058	6	7
269	Tumor Ensemble-Based Modeling and Visualization of Emergent Angiogenic Heterogeneity in Breast Cancer. *Scientific Reports*, **2019**, 9, 5276	4.9	12
268	Mechanistically detailed systems biology modeling of the HGF/Met pathway in hepatocellular carcinoma. *Npj Systems Biology and Applications*, **2019**, 5, 29	5	10
267	Anisotropic poly(lactic-co-glycolic acid) microparticles enable sustained release of a peptide for long-term inhibition of ocular neovascularization. *Acta Biomaterialia*, **2019**, 97, 451-460	10.8	9
266	A QSP Model for Predicting Clinical Responses to Monotherapy, Combination and Sequential Therapy Following CTLA-4, PD-1, and PD-L1 Checkpoint Blockade. *Scientific Reports*, **2019**, 9, 11286	4.9	34
265	A Computational Model of Neoadjuvant PD-1 Inhibition in Non-Small Cell Lung Cancer. *AAPS Journal*, **2019**, 21, 79	3.7	25
264	Angiopoietin-Tie Signaling Pathway in Endothelial Cells: A Computational Model. *IScience*, **2019**, 20, 497-511	6.1	19
263	A collagen IV-derived peptide disrupts 51 integrin and potentiates Ang2/Tie2 signaling. *JCI Insight*, **2019**, 4,	9.9	23
262	A mechanistic integrative computational model of macrophage polarization: Implications in human pathophysiology. *PLoS Computational Biology*, **2019**, 15, e1007468	5	20
261	Deciphering microvascular changes after myocardial infarction through 3D fully automated image analysis. *Scientific Reports*, **2018**, 8, 1854	4.9	11

260	Human expression patterns: qualitative and quantitative analysis of thrombospondin-1 under physiological and pathological conditions. *Journal of Cellular and Molecular Medicine*, **2018**, 22, 2086-2097	5.6	22
259	Biomimetic peptide display from a polymeric nanoparticle surface for targeting and antitumor activity to human triple-negative breast cancer cells. *Journal of Biomedical Materials Research - Part A*, **2018**, 106, 1753-1764	5.4	14
258	Computer Simulation of TSP1 Inhibition of VEGF-Akt-eNOS: An Angiogenesis Triple Threat. *Frontiers in Physiology*, **2018**, 9, 644	4.6	20
257	Computational modeling of synergistic interaction between V3 integrin and VEGFR2 in endothelial cells: Implications for the mechanism of action of angiogenesis-modulating integrin-binding peptides. *Journal of Theoretical Biology*, **2018**, 455, 212-221	2.3	12
256	Simultaneous blockade of IL-6 and CCL5 signaling for synergistic inhibition of triple-negative breast cancer growth and metastasis. *Breast Cancer Research*, **2018**, 20, 54	8.3	41
255	Modeling triple-negative breast cancer heterogeneity: Effects of stromal macrophages, fibroblasts and tumor vasculature. *Journal of Theoretical Biology*, **2018**, 452, 56-68	2.3	30
254	Quantitative Characterization of CD8+ T Cell Clustering and Spatial Heterogeneity in Solid Tumors. *Frontiers in Oncology*, **2018**, 8, 649	5.3	17
253	Three-Dimensional Transport Model for Intravitreal and Suprachoroidal Drug Injection **2018**, 59, 5266-5276		17
252	Tyrosine kinase blocking collagen IV-derived peptide suppresses ocular neovascularization and vascular leakage. *Science Translational Medicine*, **2017**, 9,	17.5	29
251	Gene delivery nanoparticles to modulate angiogenesis. *Advanced Drug Delivery Reviews*, **2017**, 119, 20-43	18.5	46
250	Transcriptional and Post-Transcriptional Regulation of Thrombospondin-1 Expression: A Computational Model. *PLoS Computational Biology*, **2017**, 13, e1005272	5	13
249	Computational investigation of sphingosine kinase 1 (SphK1) and calcium dependent ERK1/2 activation downstream of VEGFR2 in endothelial cells. *PLoS Computational Biology*, **2017**, 13, e1005332	5	17
248	A computational multiscale agent-based model for simulating spatio-temporal tumour immune response to PD1 and PDL1 inhibition. *Journal of the Royal Society Interface*, **2017**, 14,	4.1	64
247	An agent-based model of triple-negative breast cancer: the interplay between chemokine receptor CCR5 expression, cancer stem cells, and hypoxia. *BMC Systems Biology*, **2017**, 11, 68	3.5	26
246	Inhibition of VEGFR2 Activation and Its Downstream Signaling to ERK1/2 and Calcium by Thrombospondin-1 (TSP1): Investigation. *Frontiers in Physiology*, **2017**, 8, 48	4.6	17
245	Abstract 4531: Systems pharmacology to predict cellular biomarkers and optimize mono- and combination-therapy regimens: Focusing on immune checkpoint targets PD-1, PD-L1 and CTLA-4 **2017**,		2
244	Crosstalk between stromal components and tumor cells of TNBC via secreted factors enhances tumor growth and metastasis. *Oncotarget*, **2017**, 8, 60210-60222	3.3	27
243	Therapeutic potential of an anti-angiogenic multimodal biomimetic peptide in hepatocellular carcinoma. *Oncotarget*, **2017**, 8, 101520-101534	3.3	5

242	Effects of endothelial cell proliferation and migration rates in a computational model of sprouting angiogenesis. *Scientific Reports*, **2016**, 6, 36992	4.9	80
241	A multiscale computational model predicts distribution of anti-angiogenic isoform VEGF in peripheral arterial disease in human and mouse. *Scientific Reports*, **2016**, 6, 37030	4.9	16
240	Multiscale Modeling in the Clinic: Drug Design and Development. *Annals of Biomedical Engineering*, **2016**, 44, 2591-610	4.7	36
239	Endothelial cells decode VEGF-mediated Ca2+ signaling patterns to produce distinct functional responses. *Science Signaling*, **2016**, 9, ra20	8.8	56
238	Multi-scale Modeling in Clinical Oncology: Opportunities and Barriers to Success. *Annals of Biomedical Engineering*, **2016**, 44, 2626-41	4.7	48
237	The Angiogenic Secretome in VEGF overexpressing Breast Cancer Xenografts. *Scientific Reports*, **2016**, 6, 39460	4.9	15
236	Crosstalk between cancer cells and blood endothelial and lymphatic endothelial cells in tumour and organ microenvironment. *Expert Reviews in Molecular Medicine*, **2015**, 17, e3	6.7	55
235	Analysis of gene expression of secreted factors associated with breast cancer metastases in breast cancer subtypes. *Scientific Reports*, **2015**, 5, 12133	4.9	30
234	Vasculature-specific MRI reveals differential anti-angiogenic effects of a biomimetic peptide in an orthotopic breast cancer model. *Angiogenesis*, **2015**, 18, 125-36	10.6	8
233	A 3D Fractal-Based Approach towards Understanding Changes in the Infarcted Heart Microvasculature. *Lecture Notes in Computer Science*, **2015**, 173-180	0.9	2
232	Computational systems biology approaches to anti-angiogenic cancer therapeutics. *Drug Discovery Today*, **2015**, 20, 187-97	8.8	36
231	PADPIN: protein-protein interaction networks of angiogenesis, arteriogenesis, and inflammation in peripheral arterial disease. *Physiological Genomics*, **2015**, 47, 331-43	3.6	12
230	Pharmacokinetics of Anti-VEGF Agent Aflibercept in Cancer Predicted by Data-Driven, Molecular-Detailed Model. *CPT: Pharmacometrics and Systems Pharmacology*, **2015**, 4, 641-9	4.5	14
229	Computational Model of MicroRNA Control of HIF-VEGF Pathway: Insights into the Pathophysiology of Ischemic Vascular Disease and Cancer. *PLoS Computational Biology*, **2015**, 11, e1004612	5	25
228	Computational drug repositioning for peripheral arterial disease: prediction of anti-inflammatory and pro-angiogenic therapeutics. *Frontiers in Pharmacology*, **2015**, 6, 179	5.6	6
227	Heterogeneity of chemokine cell-surface receptor expression in triple-negative breast cancer. *American Journal of Cancer Research*, **2015**, 5, 1295-307	4.4	14
226	In Vitro and in Vivo Analyses of the Effects of Sunitinib on Endothelial Cell-Surface Vascular Endothelial Growth Factor Receptor-2. *FASEB Journal*, **2015**, 29, 780.4	0.9	1
225	Image-based Characterization of Functional and Structural Heterogeneity of Tumor Xenografts using Blood Flow modeling, Oxygenation Modeling and Multivariate Analysis. *FASEB Journal*, **2015**, 29, 787.11	0.9	1

224	Inhibition of breast cancer growth and metastasis by a biomimetic peptide. *Scientific Reports*, **2014**, 4, 7139	4.9	31
223	Lymphatic endothelial cells support tumor growth in breast cancer. *Scientific Reports*, **2014**, 4, 5853	4.9	37
222	Extracellular regulation of VEGF: isoforms, proteolysis, and vascular patterning. *Cytokine and Growth Factor Reviews*, **2014**, 25, 1-19	17.9	198
221	Breast cancer cells condition lymphatic endothelial cells within pre-metastatic niches to promote metastasis. *Nature Communications*, **2014**, 5, 4715	17.4	108
220	An agent-based model of cancer stem cell initiated avascular tumour growth and metastasis: the effect of seeding frequency and location. *Journal of the Royal Society Interface*, **2014**, 11, 20140640	4.1	22
219	A systems biology view of blood vessel growth and remodelling. *Journal of Cellular and Molecular Medicine*, **2014**, 18, 1491-508	5.6	92
218	A bioimage informatics based reconstruction of breast tumor microvasculature with computational blood flow predictions. *Microvascular Research*, **2014**, 91, 8-21	3.7	52
217	A biomimetic collagen derived peptide exhibits anti-angiogenic activity in triple negative breast cancer. *PLoS ONE*, **2014**, 9, e111901	3.7	9
216	Angiogenesis interactome and time course microarray data reveal the distinct activation patterns in endothelial cells. *PLoS ONE*, **2014**, 9, e110871	3.7	14
215	Antiangiogenic cancer drug sunitinib exhibits unexpected proangiogenic effects on endothelial cells. *OncoTargets and Therapy*, **2014**, 7, 1571-82	4.4	13
214	Quantitative fluorescent profiling of VEGFRs reveals tumor cell and endothelial cell heterogeneity in breast cancer xenografts. *Cancer Medicine*, **2014**, 3, 225-44	4.8	41
213	Pre-treatment of mice with tumor-conditioned media accelerates metastasis to lymph nodes and lungs: a new spontaneous breast cancer metastasis model. *Clinical and Experimental Metastasis*, **2014**, 31, 67-79	4.7	25
212	Synergy between a collagen IV mimetic peptide and a somatotropin-domain derived peptide as angiogenesis and lymphangiogenesis inhibitors. *Angiogenesis*, **2013**, 16, 159-70	10.6	16
211	Inhibition of lymphangiogenesis and angiogenesis in breast tumor xenografts and lymph nodes by a peptide derived from transmembrane protein 45A. *Neoplasia*, **2013**, 15, 112-24	6.4	40
210	Long-term suppression of ocular neovascularization by intraocular injection of biodegradable polymeric particles containing a serpin-derived peptide. *Biomaterials*, **2013**, 34, 7544-51	15.6	41
209	Computational model of VEGFR2 pathway to ERK activation and modulation through receptor trafficking. *Cellular Signalling*, **2013**, 25, 2496-510	4.9	30
208	Endothelial cell-by-cell profiling reveals the temporal dynamics of VEGFR1 and VEGFR2 membrane localization after murine hindlimb ischemia. *American Journal of Physiology - Heart and Circulatory Physiology*, **2013**, 304, H1085-93	5.2	51
207	Compartment model predicts VEGF secretion and investigates the effects of VEGF trap in tumor-bearing mice. *Frontiers in Oncology*, **2013**, 3, 196	5.3	34

206	Effect of tumor microenvironment on tumor VEGF during anti-VEGF treatment: systems biology predictions. *Journal of the National Cancer Institute*, **2013**, 105, 802-11	9.7	69
205	Computational Model of Gab1/2-Dependent VEGFR2 Pathway to Akt Activation. *PLoS ONE*, **2013**, 8, e67438	3.7	26
204	Identification of morphological and hemodynamic biomarkers for tumor vascular perfusion through mathematical modeling and high-resolution imaging. *FASEB Journal*, **2013**, 27, 685.12	0.9	
203	Structure-activity relationship study of collagen-derived anti-angiogenic biomimetic peptides. *Chemical Biology and Drug Design*, **2012**, 80, 27-37	2.9	12
202	Multiscale imaging and computational modeling of blood flow in the tumor vasculature. *Annals of Biomedical Engineering*, **2012**, 40, 2425-41	4.7	40
201	Predicting the effects of anti-angiogenic agents targeting specific VEGF isoforms. *AAPS Journal*, **2012**, 14, 500-9	3.7	45
200	Serpin-derived peptides are antiangiogenic and suppress breast tumor xenograft growth. *Translational Oncology*, **2012**, 5, 92-7	4.9	18
199	Blood-plasma separation in Y-shaped bifurcating microfluidic channels: a dissipative particle dynamics simulation study. *Physical Biology*, **2012**, 9, 026010	3	64
198	Computational models of VEGF-associated angiogenic processes in cancer. *Mathematical Medicine and Biology*, **2012**, 29, 85-94	1.3	18
197	Constructing the angiome: a global angiogenesis protein interaction network. *Physiological Genomics*, **2012**, 44, 915-24	3.6	25
196	Collagen IV and CXC chemokine-derived antiangiogenic peptides suppress glioma xenograft growth. *Anti-Cancer Drugs*, **2012**, 23, 706-12	2.4	14
195	Effects of fiber type and size on the heterogeneity of oxygen distribution in exercising skeletal muscle. *PLoS ONE*, **2012**, 7, e44375	3.7	26
194	Expression of VEGF receptors on endothelial cells in mouse skeletal muscle. *PLoS ONE*, **2012**, 7, e44791	3.7	45
193	Applications of Network Bioinformatics to Cancer Angiogenesis **2012**, 229-244		1
192	Simulating Therapeutics Using Multiscale Models of the VEGF Receptor System in Cancer **2012**, 37-53		2
191	Novel peptide-specific quantitative structure-activity relationship (QSAR) analysis applied to collagen IV peptides with antiangiogenic activity. *Journal of Medicinal Chemistry*, **2011**, 54, 6492-500	8.3	17
190	Small peptides derived from somatotropin domain-containing proteins inhibit blood and lymphatic endothelial cell proliferation, migration, adhesion and tube formation. *International Journal of Biochemistry and Cell Biology*, **2011**, 43, 1812-21	5.6	19
189	Analysis of VEGF--a regulated gene expression in endothelial cells to identify genes linked to angiogenesis. *PLoS ONE*, **2011**, 6, e24887	3.7	21

188	Theoretical models for coronary vascular biomechanics: progress & challenges. *Progress in Biophysics and Molecular Biology*, **2011**, 104, 49-76	4.7	51
187	Quantification and cell-to-cell variation of vascular endothelial growth factor receptors. *Experimental Cell Research*, **2011**, 317, 955-65	4.2	76
186	Angiogenesis-associated crosstalk between collagens, CXC chemokines, and thrombospondin domain-containing proteins. *Annals of Biomedical Engineering*, **2011**, 39, 2213-22	4.7	22
185	Module-based multiscale simulation of angiogenesis in skeletal muscle. *Theoretical Biology and Medical Modelling*, **2011**, 8, 6	2.3	53
184	Pharmacokinetics and pharmacodynamics of VEGF-neutralizing antibodies. *BMC Systems Biology*, **2011**, 5, 193	3.5	51
183	Formation of VEGF isoform-specific spatial distributions governing angiogenesis: computational analysis. *BMC Systems Biology*, **2011**, 5, 59	3.5	52
182	Development of a biomimetic peptide derived from collagen IV with anti-angiogenic activity in breast cancer. *Cancer Biology and Therapy*, **2011**, 12, 808-17	4.6	12
181	A two-compartment model of VEGF distribution in the mouse. *PLoS ONE*, **2011**, 6, e27514	3.7	29
180	Anti-angiogenic peptides for cancer therapeutics. *Current Pharmaceutical Biotechnology*, **2011**, 12, 1101-16	2.6	119
179	Blood flow and cell-free layer in microvessels. *Microcirculation*, **2010**, 17, 615-28	2.9	168
178	Quantifying the proteolytic release of extracellular matrix-sequestered VEGF with a computational model. *PLoS ONE*, **2010**, 5, e11860	3.7	59
177	VEGF and soluble VEGF receptor-1 (sFlt-1) distributions in peripheral arterial disease: an in silico model. *American Journal of Physiology - Heart and Circulatory Physiology*, **2010**, 298, H2174-91	5.2	33
176	Increase of plasma VEGF after intravenous administration of bevacizumab is predicted by a pharmacokinetic model. *Cancer Research*, **2010**, 70, 9886-94	10.1	65
175	A systems biology perspective on sVEGFR1: its biological function, pathogenic role and therapeutic use. *Journal of Cellular and Molecular Medicine*, **2010**, 14, 528-52	5.6	135
174	In Silico Modeling of Angiogenesis at Multiple Scales: From Nanoscale to Organ System **2010**, 287-320		2
173	Pentastatin-1, a collagen IV derived 20-mer peptide, suppresses tumor growth in a small cell lung cancer xenograft model. *BMC Cancer*, **2010**, 10, 29	4.8	37
172	Systems biology of pro-angiogenic therapies targeting the VEGF system. *Wiley Interdisciplinary Reviews: Systems Biology and Medicine*, **2010**, 2, 694-707	6.6	70
171	Gene therapy from the perspective of systems biology. *Current Opinion in Molecular Therapeutics*, **2010**, 12, 570-7		22

170	Computational models of personalized medicine: leading indicators for angiogenesis therapies. *FASEB Journal*, **2010**, 24, 593.8	0.9	
169	A peptide derived from type 1 thrombospondin repeat-containing protein WISP-1 inhibits corneal and choroidal neovascularization **2009**, 50, 3840-5		17
168	A compartment model of VEGF distribution in humans in the presence of soluble VEGF receptor-1 acting as a ligand trap. *PLoS ONE*, **2009**, 4, e5108	3.7	54
167	Computational analysis of the tether-pulling experiment to probe plasma membrane-cytoskeleton interaction in cells. *Physical Review E*, **2009**, 80, 041905	2.4	13
166	Computational kinetic model of VEGF trapping by soluble VEGF receptor-1: effects of transendothelial and lymphatic macromolecular transport. *Physiological Genomics*, **2009**, 38, 29-41	3.6	17
165	The presence of VEGF receptors on the luminal surface of endothelial cells affects VEGF distribution and VEGF signaling. *PLoS Computational Biology*, **2009**, 5, e1000622	5	45
164	Computational fluid dynamics of aggregating red blood cells in postcapillary venules. *Computer Methods in Biomechanics and Biomedical Engineering*, **2009**, 12, 385-97	2.1	3
163	Elongation, proliferation & migration differentiate endothelial cell phenotypes and determine capillary sprouting. *BMC Systems Biology*, **2009**, 3, 13	3.5	93
162	Multiscale models of angiogenesis. *IEEE Engineering in Medicine and Biology Magazine*, **2009**, 28, 14-31		116
161	Modeling of growth factor-receptor systems from molecular-level protein interaction networks to whole-body compartment models. *Methods in Enzymology*, **2009**, 467, 461-497	1.7	13
160	Effects of erythrocyte deformability and aggregation on the cell free layer and apparent viscosity of microscopic blood flows. *Microvascular Research*, **2009**, 77, 265-72	3.7	157
159	Hemorrhagic shock and nitric oxide release from erythrocytic nitric oxide synthase: a quantitative analysis. *Microvascular Research*, **2009**, 78, 107-18	3.7	15
158	Peptides derived from type IV collagen, CXC chemokines, and thrombospondin-1 domain-containing proteins inhibit neovascularization and suppress tumor growth in MDA-MB-231 breast cancer xenografts. *Neoplasia*, **2009**, 11, 1285-91	6.4	47
157	Nitric oxide production pathways in erythrocytes and plasma. *Biorheology*, **2009**, 46, 107-19	1.7	26
156	Integration of angiogenesis modules at multiple scales: from molecular to tissue. *Pacific Symposium on Biocomputing Pacific Symposium on Biocomputing*, **2009**, 316-27	1.3	13
155	Investigating transient and prolonged VEGF signaling through regulation of intracellular calcium. *FASEB Journal*, **2009**, 23, 767.15	0.9	
154	Pro-angiogenic and anti-angiogenic therapies targeting the VEGF-VEGFR system. *FASEB Journal*, **2009**, 23, 592.27	0.9	
153	Modeling Skeletal Muscle Angiogenesis from the Molecular to the Tissue Level. *FASEB Journal*, **2009**, 23, 592.24	0.9	

152	Effects of an anti-VEGF administration on whole-body VEGF distribution assessed by a molecularly-detailed pharmacokinetic model: a cancer study. *FASEB Journal*, **2009**, 23, 592.22	0.9	
151	A Systems Model of HIF1 Dynamics in Ischemia. *FASEB Journal*, **2009**, 23, 767.6	0.9	
150	Experimental and theoretical studies of oxygen gradients in rat pial microvessels. *Journal of Cerebral Blood Flow and Metabolism*, **2008**, 28, 1597-604	7.3	45
149	A compartment model of VEGF distribution in blood, healthy and diseased tissues. *BMC Systems Biology*, **2008**, 2, 77	3.5	99
148	Nitric oxide in the vasculature: where does it come from and where does it go? A quantitative perspective. *Antioxidants and Redox Signaling*, **2008**, 10, 1185-98	8.4	137
147	Nitric oxide from nitrite reduction by hemoglobin in the plasma and erythrocytes. *Nitric Oxide - Biology and Chemistry*, **2008**, 18, 47-60	5	53
146	Modeling the mechanics of tethers pulled from the cochlear outer hair cell membrane. *Journal of Biomechanical Engineering*, **2008**, 130, 031007	2.1	8
145	Trans-scleral delivery of antiangiogenic proteins. *Journal of Ocular Pharmacology and Therapeutics*, **2008**, 24, 70-9	2.6	27
144	A systematic methodology for proteome-wide identification of peptides inhibiting the proliferation and migration of endothelial cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 13775-80	11.5	61
143	INTEGRATION OF ANGIOGENESIS MODULES AT MULTIPLE SCALES: FROM MOLECULAR TO TISSUE **2008**,		3
142	Novel anti-angiogenic peptides derived from ELR-containing CXC chemokines. *Journal of Cellular Biochemistry*, **2008**, 104, 1356-63	4.7	16
141	Red blood cell aggregation and dissociation in shear flows simulated by lattice Boltzmann method. *Journal of Biomechanics*, **2008**, 41, 47-55	2.9	197
140	Systems biology of vascular endothelial growth factors. *Microcirculation*, **2008**, 15, 715-38	2.9	118
139	Reactive oxygen species regulate hypoxia-inducible factor 1alpha differentially in cancer and ischemia. *Molecular and Cellular Biology*, **2008**, 28, 5106-19	4.8	138
138	Nitric oxide release from nitric oxide synthase on erythrocytes during hemorrhagic shock. *FASEB Journal*, **2008**, 22, 749.7	0.9	
137	Towards a systematic design of novel endogenous peptide-based antiangiogenic approaches. *FASEB Journal*, **2008**, 22, 925.15	0.9	
136	An immersed boundary lattice Boltzmann approach to simulate deformable liquid capsules and its application to microscopic blood flows. *Physical Biology*, **2007**, 4, 285-95	3	139
135	Application of Chimera grid to modelling cell motion and aggregation in a narrow tube. *International Journal for Numerical Methods in Fluids*, **2007**, 53, 105-128	1.9	24

134	Dimerization of VEGF receptors and implications for signal transduction: a computational study. *Biophysical Chemistry*, **2007**, 128, 125-39	3.5	90
133	A computational model of oxygen delivery by hemoglobin-based oxygen carriers in three-dimensional microvascular networks. *Journal of Theoretical Biology*, **2007**, 248, 657-74	2.3	45
132	Where is VEGF in the body? A meta-analysis of VEGF distribution in cancer. *British Journal of Cancer*, **2007**, 97, 978-85	8.7	197
131	Three autocrine feedback loops determine HIF1 alpha expression in chronic hypoxia. *Biochimica Et Biophysica Acta - Molecular Cell Research*, **2007**, 1773, 1511-25	4.9	26
130	Vascular and perivascular nitric oxide release and transport: biochemical pathways of neuronal nitric oxide synthase (NOS1) and endothelial nitric oxide synthase (NOS3). *Free Radical Biology and Medicine*, **2007**, 42, 811-22	7.8	22
129	Protein transport to choroid and retina following periocular injection: theoretical and experimental study. *Annals of Biomedical Engineering*, **2007**, 35, 615-30	4.7	21
128	Multi-scale computational models of pro-angiogenic treatments in peripheral arterial disease. *Annals of Biomedical Engineering*, **2007**, 35, 982-94	4.7	37
127	A biochemical model of matrix metalloproteinase 9 activation and inhibition. *Journal of Biological Chemistry*, **2007**, 282, 37585-96	5.4	72
126	Vascular smooth muscle NO exposure from intraerythrocytic SNOHb: a mathematical model. *Antioxidants and Redox Signaling*, **2007**, 9, 1097-110	8.4	24
125	Outer hair cell active force generation in the cochlear environment. *Journal of the Acoustical Society of America*, **2007**, 122, 2215-25	2.2	16
124	Contributions of collision rate and collision efficiency to erythrocyte aggregation in postcapillary venules at low flow rates. *American Journal of Physiology - Heart and Circulatory Physiology*, **2007**, 293, H1947-54	5.2	7
123	Skeletal muscle VEGF gradients in peripheral arterial disease: simulations of rest and exercise. *American Journal of Physiology - Heart and Circulatory Physiology*, **2007**, 293, H3740-9	5.2	49
122	Temporal and spatial variations of cell-free layer width in arterioles. *American Journal of Physiology - Heart and Circulatory Physiology*, **2007**, 293, H1526-35	5.2	114
121	Impaired angiogenesis after hindlimb ischemia in type 2 diabetes mellitus: differential regulation of vascular endothelial growth factor receptor 1 and soluble vascular endothelial growth factor receptor 1. *Circulation Research*, **2007**, 101, 948-56	15.7	158
120	VEGF gradients, receptor activation, and sprout guidance in resting and exercising skeletal muscle. *Journal of Applied Physiology*, **2007**, 102, 722-34	3.7	76
119	Interactions of VEGF isoforms with VEGFR-1, VEGFR-2, and neuropilin in vivo: a computational model of human skeletal muscle. *American Journal of Physiology - Heart and Circulatory Physiology*, **2007**, 292, H459-74	5.2	69
118	Identification of novel short peptides derived from the alpha 4, alpha 5, and alpha 6 fibrils of type IV collagen with anti-angiogenic properties. *Biochemical and Biophysical Research Communications*, **2007**, 354, 434-9	3.4	51
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