

Hermann B Frieboes

List of Publications by Year in descending order

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78
papers

3,354
citations

172457

29
h-index

161849

54
g-index

82
all docs

82
docs citations

82
times ranked

3723
citing authors

#	ARTICLE	IF	CITATIONS
1	An Integrated Computational/Experimental Model of Tumor Invasion. <i>Cancer Research</i> , 2006, 66, 1597-1604.	0.9	261
2	Prediction of lung cancer patient survival via supervised machine learning classification techniques. <i>International Journal of Medical Informatics</i> , 2017, 108, 1-8.	3.3	220
3	Computer simulation of glioma growth and morphology. <i>NeuroImage</i> , 2007, 37, S59-S70.	4.2	212
4	Three-dimensional multispecies nonlinear tumor growth: Tumor invasion and angiogenesis. <i>Journal of Theoretical Biology</i> , 2010, 264, 1254-1278.	1.7	194
5	The effect of interstitial pressure on tumor growth: Coupling with the blood and lymphatic vascular systems. <i>Journal of Theoretical Biology</i> , 2013, 320, 131-151.	1.7	183
6	Morphologic Instability and Cancer Invasion. <i>Clinical Cancer Research</i> , 2005, 11, 6772-6779.	7.0	148
7	Prediction of Drug Response in Breast Cancer Using Integrative Experimental/Computational Modeling. <i>Cancer Research</i> , 2009, 69, 4484-4492.	0.9	125
8	Multiparameter Computational Modeling of Tumor Invasion. <i>Cancer Research</i> , 2009, 69, 4493-4501.	0.9	124
9	Mathematical modeling of tumor-immune cell interactions. <i>Journal of Theoretical Biology</i> , 2019, 469, 47-60.	1.7	95
10	The effect of interstitial pressure on therapeutic agent transport: Coupling with the tumor blood and lymphatic vascular systems. <i>Journal of Theoretical Biology</i> , 2014, 355, 194-207.	1.7	91
11	A Computational Model for Predicting Nanoparticle Accumulation in Tumor Vasculature. <i>PLoS ONE</i> , 2013, 8, e56876.	2.5	88
12	Release kinetics of paclitaxel and cisplatin from two and three layered gold nanoparticles. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2015, 92, 120-129.	4.3	88
13	Integrated intravital microscopy and mathematical modeling to optimize nanotherapeutics delivery to tumors. <i>AIP Advances</i> , 2012, 2, 11208.	1.3	84
14	Predicting drug pharmacokinetics and effect in vascularized tumors using computer simulation. <i>Journal of Mathematical Biology</i> , 2009, 58, 485-510.	1.9	80
15	Mathematical modeling of tumor-associated macrophage interactions with the cancer microenvironment. , 2018, 6, 10.		69
16	Targeted Noninvasive Imaging of EGFR-Expressing Orthotopic Pancreatic Cancer Using Multispectral Optoacoustic Tomography. <i>Cancer Research</i> , 2014, 74, 6271-6279.	0.9	60
17	A review of metabolism-associated biomarkers in lung cancer diagnosis and treatment. <i>Metabolomics</i> , 2018, 14, 81.	3.0	60
18	Enhanced uptake and transport of PLGA-modified nanoparticles in cervical cancer. <i>Journal of Nanobiotechnology</i> , 2016, 14, 33.	9.1	56

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19	Physical Oncology: A Bench-to-Bedside Quantitative and Predictive Approach. <i>Cancer Research</i> , 2011, 71, 298-302.	0.9	52
20	Enhanced performance of macrophage-encapsulated nanoparticle albumin-bound-paclitaxel in hypo-perfused cancer lesions. <i>Nanoscale</i> , 2016, 8, 12544-12552.	5.6	49
21	Macrophage Polarization Contributes to the Anti-Tumoral Efficacy of Mesoporous Nanovectors Loaded with Albumin-Bound Paclitaxel. <i>Frontiers in Immunology</i> , 2017, 8, 693.	4.8	49
22	Computational Modeling of Tumor Response to Drug Release from Vasculature-Bound Nanoparticles. <i>PLoS ONE</i> , 2015, 10, e0144888.	2.5	43
23	An Integrated Computational/Experimental Model of Lymphoma Growth. <i>PLoS Computational Biology</i> , 2013, 9, e1003008.	3.2	36
24	Application of unsupervised analysis techniques to lung cancer patient data. <i>PLoS ONE</i> , 2017, 12, e0184370.	2.5	36
25	Distribution of PLGA-modified nanoparticles in 3D cell culture models of hypo-vascularized tumor tissue. <i>Journal of Nanobiotechnology</i> , 2017, 15, 67.	9.1	36
26	Lung Cancer Survival Prediction via Machine Learning Regression, Classification, and Statistical Techniques. , 2018, 2018, 632-637.		36
27	Predictions of tumour morphological stability and evaluation against experimental observations. <i>Journal of the Royal Society Interface</i> , 2011, 8, 16-29.	3.4	35
28	<i>In vivo</i> Safety and Antitumor Efficacy of Bifunctional Small Hairpin RNAs Specific for the Human Stathmin 1 Oncoprotein. <i>DNA and Cell Biology</i> , 2011, 30, 715-726.	1.9	34
29	Modeling of nanotherapeutics delivery based on tumor perfusion. <i>New Journal of Physics</i> , 2013, 15, 055004.	2.9	33
30	Enhanced penetration into 3D cell culture using two and three layered gold nanoparticles. <i>International Journal of Nanomedicine</i> , 2013, 8, 3603.	6.7	33
31	An interdisciplinary computational/experimental approach to evaluate drug-loaded gold nanoparticle tumor cytotoxicity. <i>Nanomedicine</i> , 2016, 11, 197-216.	3.3	32
32	Detection of Phosphatidylcholine-Coated Gold Nanoparticles in Orthotopic Pancreatic Adenocarcinoma using Hyperspectral Imaging. <i>PLoS ONE</i> , 2015, 10, e0129172.	2.5	30
33	Evaluation of uptake and distribution of gold nanoparticles in solid tumors. <i>European Physical Journal Plus</i> , 2015, 130, 1.	2.6	29
34	Predictive Modeling of In Vivo Response to Gemcitabine in Pancreatic Cancer. <i>PLoS Computational Biology</i> , 2013, 9, e1003231.	3.2	28
35	Mathematical Oncology: How Are the Mathematical and Physical Sciences Contributing to the War on Breast Cancer?. <i>Current Breast Cancer Reports</i> , 2010, 2, 121-129.	1.0	27
36	Progress Towards Computational 3-D Multicellular Systems Biology. <i>Advances in Experimental Medicine and Biology</i> , 2016, 936, 225-246.	1.6	27

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37	Evaluation of disease staging and chemotherapeutic response in non-small cell lung cancer from patient tumor-derived metabolomic data. <i>Lung Cancer</i> , 2021, 156, 20-30.	2.0	25
38	Nonlinear response to cancer nanotherapy due to macrophage interactions revealed by mathematical modeling and evaluated in a murine model via CRISPR-modulated macrophage polarization. <i>Cancer Immunology, Immunotherapy</i> , 2020, 69, 731-744.	4.2	24
39	Predictive Modeling of Drug Response in Non-Hodgkin's Lymphoma. <i>PLoS ONE</i> , 2015, 10, e0129433.	2.5	24
40	Modeling the Kinetics of Integrin Receptor Binding to Hepatic Extracellular Matrix Proteins. <i>Scientific Reports</i> , 2017, 7, 12444.	3.3	20
41	Evaluation of Drug-Loaded Gold Nanoparticle Cytotoxicity as a Function of Tumor Vasculature-Induced Tissue Heterogeneity. <i>Annals of Biomedical Engineering</i> , 2019, 47, 257-271.	2.5	20
42	Chloroquine-mediated cell death in metastatic pancreatic adenocarcinoma through inhibition of autophagy. <i>JOP: Journal of the Pancreas</i> , 2014, 15, 189-97.	1.5	19
43	Nanotechnology in Cancer Drug Therapy: A Biocomputational Approach. , 2006, , 435-460.		18
44	The Tumor Microenvironment as a Barrier to Cancer Nanotherapy. <i>Advances in Experimental Medicine and Biology</i> , 2016, 936, 165-190.	1.6	18
45	Efficacy of Surface-Modified PLGA Nanoparticles as a Function of Cervical Cancer Type. <i>Pharmaceutical Research</i> , 2019, 36, 66.	3.5	18
46	Impact of tumor-parenchyma biomechanics on liver metastatic progression: a multi-model approach. <i>Scientific Reports</i> , 2021, 11, 1710.	3.3	17
47	Pancreatic adenocarcinoma response to chemotherapy enhanced with non-invasive radio frequency evaluated via an integrated experimental/computational approach. <i>Scientific Reports</i> , 2017, 7, 3437.	3.3	16
48	A Computational/Experimental Assessment of Antitumor Activity of Polymer Nanoassemblies for pH-Controlled Drug Delivery to Primary and Metastatic Tumors. <i>Pharmaceutical Research</i> , 2016, 33, 2552-2564.	3.5	14
49	Multiscale Modeling of Glioblastoma Suggests that the Partial Disruption of Vessel/Cancer Stem Cell Crosstalk Can Promote Tumor Regression without Increasing Invasiveness. <i>IEEE Transactions on Biomedical Engineering</i> , 2016, 64, 1-1.	4.2	14
50	Model of vascular desmoplastic multispecies tumor growth. <i>Journal of Theoretical Biology</i> , 2017, 430, 245-282.	1.7	13
51	Design Optimization of Tumor Vasculature-Bound Nanoparticles. <i>Scientific Reports</i> , 2018, 8, 17768.	3.3	13
52	Multi-objective optimization of tumor response to drug release from vasculature-bound nanoparticles. <i>Scientific Reports</i> , 2020, 10, 8294.	3.3	12
53	Computational Modeling of Antiviral Drug Diffusion from Poly(lactic-co-glycolic-acid) Fibers and Multicompartment Pharmacokinetics for Application to the Female Reproductive Tract. <i>Molecular Pharmaceutics</i> , 2018, 15, 1534-1547.	4.6	11
54	Pharmacokinetic/pharmacodynamic modeling of combination-chemotherapy for lung cancer. <i>Journal of Theoretical Biology</i> , 2018, 448, 38-52.	1.7	11

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55	Computational/experimental evaluation of liver metastasis post hepatic injury: interactions with macrophages and transitional ECM. <i>Scientific Reports</i> , 2019, 9, 15077.	3.3	11
56	Modeling of tumor response to macrophage and T lymphocyte interactions in the liver metastatic microenvironment. <i>Cancer Immunology, Immunotherapy</i> , 2021, 70, 1475-1488.	4.2	11
57	Nonlinear Modeling and Simulation of Tumor Growth. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2008, , 1-69.	0.6	10
58	A Review of Pharmacological Treatment Options for Lung Cancer: Emphasis on Novel Nanotherapeutics and Associated Toxicity. <i>Current Drug Targets</i> , 2015, 16, 1057-1087.	2.1	10
59	Development of Halofluorochromic Polymer Nanoassemblies for the Potential Detection of Liver Metastatic Colorectal Cancer Tumors Using Experimental and Computational Approaches. <i>Pharmaceutical Research</i> , 2017, 34, 2385-2402.	3.5	9
60	Pharmacokinetic/Pharmacodynamics Modeling of Drug-Loaded PLGA Nanoparticles Targeting Heterogeneously Vascularized Tumor Tissue. <i>Pharmaceutical Research</i> , 2019, 36, 185.	3.5	9
61	Simulation of the Protein-Shedding Kinetics of a Fully Vascularized Tumor. <i>Cancer Informatics</i> , 2015, 14, CIN.S35374.	1.9	8
62	Pharmacokinetic modeling of a gel-delivered dapivirine microbicide in humans. <i>European Journal of Pharmaceutical Sciences</i> , 2016, 93, 410-418.	4.0	8
63	Modeling of Nanotherapy Response as a Function of the Tumor Microenvironment: Focus on Liver Metastasis. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 1011.	4.1	8
64	Nanoparticle-mediated drug delivery to treat infections in the female reproductive tract: evaluation of experimental systems and the potential for mathematical modeling. <i>International Journal of Nanomedicine</i> , 2018, Volume 13, 2709-2727.	6.7	7
65	Modeling of Tumor Growth with Input from Patient-Specific Metabolomic Data. <i>Annals of Biomedical Engineering</i> , 2022, 50, 314-329.	2.5	7
66	Modeling of nanoparticle transport through the female reproductive tract for the treatment of infectious diseases. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2019, 138, 37-47.	4.3	6
67	Simulation of 3D centimeter-scale continuum tumor growth at sub-millimeter resolution via distributed computing. <i>Computers in Biology and Medicine</i> , 2021, 134, 104507.	7.0	6
68	Simulation of Multispecies Desmoplastic Cancer Growth via a Fully Adaptive Non-linear Full Multigrid Algorithm. <i>Frontiers in Physiology</i> , 2018, 9, 821.	2.8	5
69	Modeling of Combination Chemotherapy and Immunotherapy for Lung Cancer. , 2019, 2019, 273-276.		5
70	Multicompartment modeling of protein shedding kinetics during vascularized tumor growth. <i>Scientific Reports</i> , 2020, 10, 16709.	3.3	4
71	Automated analysis of co-localized protein expression in histologic sections of prostate cancer. <i>PLoS ONE</i> , 2017, 12, e0178362.	2.5	4
72	Lung cancer metabolomic data from tumor core biopsies enables risk-score calculation for progression-free and overall survival. <i>Metabolomics</i> , 2022, 18, 31.	3.0	4

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73	Discrepancies in metabolomic biomarker identification from patient-derived lung cancer revealed by combined variation in data pre-treatment and imputation methods. <i>Metabolomics</i> , 2021, 17, 37.	3.0	3
74	Personalized Computer-Aided Diagnosis for Mild Cognitive Impairment in Alzheimer's Disease Based on sMRI and ^{11}C PiB-PET Analysis. <i>IEEE Access</i> , 2020, 8, 218982-218996.	4.2	2
75	Prediction of lung cancer immunotherapy response via machine learning analysis of immune cell lineage and surface markers. <i>Cancer Biomarkers</i> , 2022, 34, 681-692.	1.7	2
76	Bioengineered Models to Study Microenvironmental Regulation of Glioblastoma Metabolism. <i>Journal of Neuropathology and Experimental Neurology</i> , 2021, 80, 1012-1023.	1.7	1
77	Bridging the Gap Between Modeling of Tumor Growth and Clinical Imaging. , 2014, , 463-487.		1
78	Surface-modified nanoparticle transport evaluated in a multistage model of ovarian cancer.. <i>Journal of Clinical Oncology</i> , 2020, 38, e18057-e18057.	1.6	0