Hermann B Frieboes

List of Publications by Year
in descending order

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	Modeling of Tumor Growth with Input from Patient-Specific Metabolomic Data. Annals of Biomedical Engineering, 2022, 50, 314-329.	2.5	7
2	Lung cancer metabolomic data from tumor core biopsies enables risk-score calculation for progression-free and overall survival. Metabolomics, 2022, 18, 31.	3.0	4
3	Prediction of lung cancer immunotherapy response via machine learning analysis of immune cell lineage and surface markers. Cancer Biomarkers, 2022, 34, 681-692.	1.7	2
4	Modeling of tumor response to macrophage and T lymphocyte interactions in the liver metastatic microenvironment. Cancer Immunology, Immunotherapy, 2021, 70, 1475-1488.	4.2	11
5	Impact of tumor-parenchyma biomechanics on liver metastatic progression: a multi-model approach. Scientific Reports, 2021, 11, 1710.	3.3	17
6	Discrepancies in metabolomic biomarker identification from patient-derived lung cancer revealed by combined variation in data pre-treatment and imputation methods. Metabolomics, 2021, 17, 37.	3.0	3
7	Evaluation of disease staging and chemotherapeutic response in non-small cell lung cancer from patient tumor-derived metabolomic data. Lung Cancer, 2021, 156, 20-30.	2.0	25
8	Simulation of 3D centimeter-scale continuum tumor growth at sub-millimeter resolution via distributed computing. Computers in Biology and Medicine, 2021, 134, 104507.	7.0	6
9	Bioengineered Models to Study Microenvironmental Regulation of Glioblastoma Metabolism. Journal of Neuropathology and Experimental Neurology, 2021, 80, 1012-1023.	1.7	1
10	Multicompartment modeling of protein shedding kinetics during vascularized tumor growth. Scientific Reports, 2020, 10, 16709.	3.3	4
11	Modeling of Nanotherapy Response as a Function of the Tumor Microenvironment: Focus on Liver Metastasis. Frontiers in Bioengineering and Biotechnology, 2020, 8, 1011.	4.1	8
12	Personalized Computer-Aided Diagnosis for Mild Cognitive Impairment in Alzheimer's Disease Based on sMRI and ^{11}C PiB-PET Analysis. IEEE Access, 2020, 8, 218982-218996.	4.2	2
13	Multi-objective optimization of tumor response to drug release from vasculature-bound nanoparticles. Scientific Reports, 2020, 10, 8294.	3.3	12
14	Nonlinear response to cancer nanotherapy due to macrophage interactions revealed by mathematical modeling and evaluated in a murine model via CRISPR-modulated macrophage polarization. Cancer Immunology, Immunotherapy, 2020, 69, 731-744.	4.2	24
15	Surface-modified nanoparticle transport evaluated in a multistage model of ovarian cancer.. Journal of Clinical Oncology, 2020, 38, e18057-e18057.	1.6	0
16	Modeling of Combination Chemotherapy and Immunotherapy for Lung Cancer. , 2019, 2019, 273-276.		5
17	Computational/experimental evaluation of liver metastasis post hepatic injury: interactions with macrophages and transitional ECM. Scientific Reports, 2019, 9, 15077.	3.3	11
18	Efficacy of Surface-Modified PLGA Nanoparticles as a Function of Cervical Cancer Type. Pharmaceutical Research, 2019, 36, 66.	3.5	18

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19	Mathematical modeling of tumor-immune cell interactions. Journal of Theoretical Biology, 2019, 469, 47-60.	1.7	95
20	Pharmacokinetic/Pharmacodynamics Modeling of Drug-Loaded PLGA Nanoparticles Targeting Heterogeneously Vascularized Tumor Tissue. Pharmaceutical Research, 2019, 36, 185.	3.5	9
21	Modeling of nanoparticle transport through the female reproductive tract for the treatment of infectious diseases. European Journal of Pharmaceutics and Biopharmaceutics, 2019, 138, 37-47.	4.3	6
22	Evaluation of Drug-Loaded Gold Nanoparticle Cytotoxicity as a Function of Tumor Vasculature-Induced Tissue Heterogeneity. Annals of Biomedical Engineering, 2019, 47, 257-271.	2.5	20
23	Computational Modeling of Antiviral Drug Diffusion from Poly(lactic-*co*-glycolic-acid) Fibers and Multicompartment Pharmacokinetics for Application to the Female Reproductive Tract. Molecular Pharmaceutics, 2018, 15, 1534-1547.	4.6	11
24	Pharmacokinetic/pharmacodynamic modeling of combination-chemotherapy for lung cancer. Journal of Theoretical Biology, 2018, 448, 38-52.	1.7	11
25	Lung Cancer Survival Prediction via Machine Learning Regression, Classification, and Statistical Techniques. , 2018, 2018, 632-637.		36
26	Design Optimization of Tumor Vasculature-Bound Nanoparticles. Scientific Reports, 2018, 8, 17768.	3.3	13
27	Simulation of Multispecies Desmoplastic Cancer Growth via a Fully Adaptive Non-linear Full Multigrid Algorithm. Frontiers in Physiology, 2018, 9, 821.	2.8	5
28	A review of metabolism-associated biomarkers in lung cancer diagnosis and treatment. Metabolomics, 2018, 14, 81.	3.0	60
29	Nanoparticle-mediated drug delivery to treat infections in the female reproductive tract: evaluation of experimental systems and the potential for mathematical modeling. International Journal of Nanomedicine, 2018, Volume 13, 2709-2727.	6.7	7
30	Mathematical modeling of tumor-associated macrophage interactions with the cancer microenvironment. , 2018, 6, 10.		69
31	Pancreatic adenocarcinoma response to chemotherapy enhanced with non-invasive radio frequency evaluated via an integrated experimental/computational approach. Scientific Reports, 2017, 7, 3437.	3.3	16
32	Model of vascular desmoplastic multispecies tumor growth. Journal of Theoretical Biology, 2017, 430, 245-282.	1.7	13
33	Modeling the Kinetics of Integrin Receptor Binding to Hepatic Extracellular Matrix Proteins. Scientific Reports, 2017, 7, 12444.	3.3	20
34	Prediction of lung cancer patient survival via supervised machine learning classification techniques. International Journal of Medical Informatics, 2017, 108, 1-8.	3.3	220
35	Development of Halofluorochromic Polymer Nanoassemblies for the Potential Detection of Liver Metastatic Colorectal Cancer Tumors Using Experimental and Computational Approaches. Pharmaceutical Research, 2017, 34, 2385-2402.	3.5	9
36	Macrophage Polarization Contributes to the Anti-Tumoral Efficacy of Mesoporous Nanovectors Loaded with Albumin-Bound Paclitaxel. Frontiers in Immunology, 2017, 8, 693.	4.8	49

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37	Application of unsupervised analysis techniques to lung cancer patient data. PLoS ONE, 2017, 12, e0184370.	2.5	36
38	Distribution of PLGA-modified nanoparticles in 3D cell culture models of hypo-vascularized tumor tissue. Journal of Nanobiotechnology, 2017, 15, 67.	9.1	36
39	Automated analysis of co-localized protein expression in histologic sections of prostate cancer. PLoS ONE, 2017, 12, e0178362.	2.5	4
40	A Computational/Experimental Assessment of Antitumor Activity of Polymer Nanoassemblies for pH-Controlled Drug Delivery to Primary and Metastatic Tumors. Pharmaceutical Research, 2016, 33, 2552-2564.	3.5	14
41	Enhanced uptake and transport of PLGA-modified nanoparticles in cervical cancer. Journal of Nanobiotechnology, 2016, 14, 33.	9.1	56
42	Multiscale Modeling of Glioblastoma Suggests that the Partial Disruption of Vessel/Cancer Stem Cell Crosstalk Can Promote Tumor Regression without Increasing Invasiveness. IEEE Transactions on Biomedical Engineering, 2016, 64, 1-1.	4.2	14
43	Pharmacokinetic modeling of a gel-delivered dapivirine microbicide in humans. European Journal of Pharmaceutical Sciences, 2016, 93, 410-418.	4.0	8
44	Progress Towards Computational 3-D Multicellular Systems Biology. Advances in Experimental Medicine and Biology, 2016, 936, 225-246.	1.6	27
45	The Tumor Microenvironment as a Barrier to Cancer Nanotherapy. Advances in Experimental Medicine and Biology, 2016, 936, 165-190.	1.6	18
46	Enhanced performance of macrophage-encapsulated nanoparticle albumin-bound-paclitaxel in hypo-perfused cancer lesions. Nanoscale, 2016, 8, 12544-12552.	5.6	49
47	An interdisciplinary computational/experimental approach to evaluate drug-loaded gold nanoparticle tumor cytotoxicity. Nanomedicine, 2016, 11, 197-216.	3.3	32
48	Simulation of the Protein-Shedding Kinetics of a Fully Vascularized Tumor. Cancer Informatics, 2015, 14, CIN.S35374.	1.9	8
49	Detection of Phosphatidylcholine-Coated Gold Nanoparticles in Orthotopic Pancreatic Adenocarcinoma using Hyperspectral Imaging. PLoS ONE, 2015, 10, e0129172.	2.5	30
50	Evaluation of uptake and distribution of gold nanoparticles in solid tumors. European Physical Journal Plus, 2015, 130, 1.	2.6	29
51	Release kinetics of paclitaxel and cisplatin from two and three layered gold nanoparticles. European Journal of Pharmaceutics and Biopharmaceutics, 2015, 92, 120-129.	4.3	88
52	Predictive Modeling of Drug Response in Non-Hodgkin's Lymphoma. PLoS ONE, 2015, 10, e0129433.	2.5	24
53	Computational Modeling of Tumor Response to Drug Release from Vasculature-Bound Nanoparticles. PLoS ONE, 2015, 10, e0144888.	2.5	43
54	A Review of Pharmacological Treatment Options for Lung Cancer: Emphasis on Novel Nanotherapeutics and Associated Toxicity. Current Drug Targets, 2015, 16, 1057-1087.	2.1	10

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55	Targeted Noninvasive Imaging of EGFR-Expressing Orthotopic Pancreatic Cancer Using Multispectral Optoacoustic Tomography. Cancer Research, 2014, 74, 6271-6279.	0.9	60
56	The effect of interstitial pressure on therapeutic agent transport: Coupling with the tumor blood and lymphatic vascular systems. Journal of Theoretical Biology, 2014, 355, 194-207.	1.7	91
57	Chloroquine-mediated cell death in metastatic pancreatic adenocarcinoma through inhibition of autophagy. JOP: Journal of the Pancreas, 2014, 15, 189-97.	1.5	19
58	Bridging the Gap Between Modeling of Tumor Growth and Clinical Imaging. , 2014, , 463-487.		1
59	The effect of interstitial pressure on tumor growth: Coupling with the blood and lymphatic vascular systems. Journal of Theoretical Biology, 2013, 320, 131-151.	1.7	183
60	Predictive Modeling of In Vivo Response to Gemcitabine in Pancreatic Cancer. PLoS Computational Biology, 2013, 9, e1003231.	3.2	28
61	Modeling of nanotherapeutics delivery based on tumor perfusion. New Journal of Physics, 2013, 15, 055004.	2.9	33
62	An Integrated Computational/Experimental Model of Lymphoma Growth. PLoS Computational Biology, 2013, 9, e1003008.	3.2	36
63	A Computational Model for Predicting Nanoparticle Accumulation in Tumor Vasculature. PLoS ONE, 2013, 8, e56876.	2.5	88
64	Enhanced penetration into 3D cell culture using two and three layered gold nanoparticles. International Journal of Nanomedicine, 2013, 8, 3603.	6.7	33
65	Integrated intravital microscopy and mathematical modeling to optimize nanotherapeutics delivery to tumors. AIP Advances, 2012, 2, 11208.	1.3	84
66	*In vivo* Safety and Antitumor Efficacy of Bifunctional Small Hairpin RNAs Specific for the Human Stathmin 1 Oncoprotein. DNA and Cell Biology, 2011, 30, 715-726.	1.9	34
67	Predictions of tumour morphological stability and evaluation against experimental observations. Journal of the Royal Society Interface, 2011, 8, 16-29.	3.4	35
68	Physical Oncology: A Bench-to-Bedside Quantitative and Predictive Approach. Cancer Research, 2011, 71, 298-302.	0.9	52
69	Mathematical Oncology: How Are the Mathematical and Physical Sciences Contributing to the War on Breast Cancer?. Current Breast Cancer Reports, 2010, 2, 121-129.	1.0	27
70	Three-dimensional multispecies nonlinear tumor growth—II: Tumor invasion and angiogenesis. Journal of Theoretical Biology, 2010, 264, 1254-1278.	1.7	194
71	Prediction of Drug Response in Breast Cancer Using Integrative Experimental/Computational Modeling. Cancer Research, 2009, 69, 4484-4492.	0.9	125
72	Predicting drug pharmacokinetics and effect in vascularized tumors using computer simulation. Journal of Mathematical Biology, 2009, 58, 485-510.	1.9	80

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73	Multiparameter Computational Modeling of Tumor Invasion. Cancer Research, 2009, 69, 4493-4501.	0.9	124
74	Nonlinear Modeling and Simulation of Tumor Growth. Modeling and Simulation in Science, Engineering and Technology, 2008, , 1-69.	0.6	10
75	Computer simulation of glioma growth and morphology. NeuroImage, 2007, 37, S59-S70.	4.2	212
76	Nanotechnology in Cancer Drug Therapy: A Biocomputational Approach. , 2006, , 435-460.		18
77	An Integrated Computational/Experimental Model of Tumor Invasion. Cancer Research, 2006, 66, 1597-1604.	0.9	261
78	Morphologic Instability and Cancer Invasion. Clinical Cancer Research, 2005, 11, 6772-6779.	7.0	148