Katarzyna A Rejniak

List of Publications by Year
in descending order

43	1,900	304602 22	276775 41
papers	citations	h-index	g-index

50	50	50	2114
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hybrid models of tumor growth. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2011, 3, 115-125.	6.6	256
2	An immersed boundary framework for modelling the growth of individual cells: An application to the early tumour development. Journal of Theoretical Biology, 2007, 247, 186-204.	0.8	156
3	Current Advances in Mathematical Modeling of Anti-Cancer Drug Penetration into Tumor Tissues. Frontiers in Oncology, 2013, 3, 278.	1.3	102
4	Towards personalized computational oncology: from spatial models of tumour spheroids, to organoids, to tissues. Journal of the Royal Society Interface, 2018, 15, 20170703.	1.5	101
5	Microenvironment driven invasion: a multiscale multimodel investigation. Journal of Mathematical Biology, 2009, 58, 579-624.	0.8	92
6	Pyruvate sensitizes pancreatic tumors to hypoxia-activated prodrug TH-302. Cancer & Metabolism, 2015, 3, 2.	2.4	69
7	Cellular modeling of cancer invasion: Integration of in silico and in vitro approaches. Journal of Cellular Physiology, 2012, 227, 431-438.	2.0	68
8	Circulating Tumor Cells: When a Solid Tumor Meets a Fluid Microenvironment. Advances in Experimental Medicine and Biology, 2016, 936, 93-106.	0.8	68
9	A Single-Cell Approach in Modeling the Dynamics of Tumor Microregions. Mathematical Biosciences and Engineering, 2005, 2, 643-655.	1.0	68
10	Invasion emerges from cancer cell adaptation to competitive microenvironments: Quantitative predictions from multiscale mathematical models. Seminars in Cancer Biology, 2008, 18, 338-348.	4.3	64
11	A Single Cell-Based Model of the Ductal Tumour Microarchitecture. Computational and Mathematical Methods in Medicine, 2007, 8, 51-69.	0.7	63
12	The Role of Tumor Tissue Architecture in Treatment Penetration and Efficacy: An Integrative Study. Frontiers in Oncology, 2013, 3, 111.	1.3	62
13	Hybrid modeling frameworks of tumor development and treatment. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2020, 12, e1461.	6.6	56
14	A Computational Study of the Development of Epithelial Acini: I.ÂSufficient Conditions for the Formation of a Hollow Structure. Bulletin of Mathematical Biology, 2008, 70, 677-712.	0.9	54
15	Current trends in mathematical modeling of tumorâ€“microenvironment interactions: a survey of tools and applications. Experimental Biology and Medicine, 2010, 235, 411-423.	1.1	54
16	A computational model of the mechanics of growth of the villous trophoblast bilayer. Bulletin of Mathematical Biology, 2004, 66, 199-232.	0.9	50
17	Comparison of Drug Inhibitory Effects ($$hbox {IC}_{50}$$) in Monolayer and Spheroid Cultures. Bulletin of Mathematical Biology, 2020, 82, 68.	0.9	46
18	Investigating dynamical deformations of tumor cells in circulation: predictions from a theoretical model. Frontiers in Oncology, 2012, 2, 111.	1.3	40

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19	Linking Changes in Epithelial Morphogenesis to Cancer Mutations Using Computational Modeling. PLoS Computational Biology, 2010, 6, e1000900.	1.5	38
20	A Computational Study of the Development of Epithelial Acini: II.ÂNecessary Conditions for Structure and Lumen Stability. Bulletin of Mathematical Biology, 2008, 70, 1450-1479.	0.9	36
21	Pathology to Enhance Precision Medicine in Oncology. Advances in Anatomic Pathology, 2015, 22, 267-272.	2.4	30
22	The formation of tight tumor clusters affects the efficacy of cell cycle inhibitors: A hybrid model study. Journal of Theoretical Biology, 2014, 352, 31-50.	0.8	26
23	Limiting the development of anti-cancer drug resistance in a spatial model of micrometastases. Mathematical Biosciences and Engineering, 2016, 13, 1185-1206.	1.0	26
24	Diagnostic assessment of osteosarcoma chemoresistance based on Virtual Clinical Trials. Medical Hypotheses, 2015, 85, 348-354.	0.8	24
25	Microenvironmental Niches and Sanctuaries: A Route to Acquired Resistance. Advances in Experimental Medicine and Biology, 2016, 936, 149-164.	0.8	24
26	Morphophenotypic classification of tumor organoids as an indicator of drug exposure and penetration potential. PLoS Computational Biology, 2019, 15, e1007214.	1.5	24
27	Simulating Cancer: Computational Models in Oncology. Frontiers in Oncology, 2013, 3, 233.	1.3	23
28	Drug-Induced Resistance in Micrometastases: Analysis of Spatio-Temporal Cell Lineages. Frontiers in Physiology, 2020, 11, 319.	1.3	21
29	Micropharmacology: An In Silico Approach for Assessing Drug Efficacy Within a Tumor Tissue. Bulletin of Mathematical Biology, 2019, 81, 3623-3641.	0.9	19
30	Emergence of Anti-Cancer Drug Resistance: Exploring the Importance of the Microenvironmental Niche via a Spatial Model. The IMA Volumes in Mathematics and Its Applications, 2015, , 1-34.	0.5	16
31	Computational investigation of intrinsic and extrinsic mechanisms underlying the formation of carcinoma. Mathematical Medicine and Biology, 2012, 29, 67-84.	0.8	15
32	Collective Cell Migration in a Fibrous Environment: A Hybrid Multiscale Modelling Approach. Frontiers in Applied Mathematics and Statistics, 2021, 7, .	0.7	15
33	Targeting Ligand Specificity Linked to Tumor Tissue Topological Heterogeneity via Single-Cell Micro-Pharmacological Modeling. Scientific Reports, 2018, 8, 3638.	1.6	12
34	Modelling the Development of Complex Tissues Using Individual Viscoelastic Cells. , 2007, , 301-323.		11
35	Homeostatic Imbalance in Epithelial Ducts and Its Role in Carcinogenesis. Scientifica, 2012, 2012, 1-8.	0.6	9
36	Mechanical Aspects of Microtubule Bundling in Taxane-Treated Circulating Tumor Cells. Biophysical Journal, 2014, 107, 1236-1246.	0.2	9

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37	Digital Transcriptome Analysis in the Aging Cerebellum. Annals of the New York Academy of Sciences, 2004, 1019, 58-63.	1.8	7
38	Bridging cell-scale simulations and radiologic images to explain short-time intratumoral oxygen fluctuations. PLoS Computational Biology, 2021, 17, e1009206.	1.5	7
39	Single-Cell-Based In Silico Models: A Tool for Dissecting Tumor Heterogeneity. , 2019, , 130-143.		6
40	On a conditionally stable nonlinear method to approximate some monotone and bounded solutions of a generalized population model. Applied Mathematics and Computation, 2014, 229, 273-282.	1.4	5
41	High School Internship Program in Integrated Mathematical Oncology (HIP IMO): Five-Year Experience at Moffitt Cancer Center. Bulletin of Mathematical Biology, 2020, 82, 91.	0.9	4
42	IBCell Morphocharts: A Computational Model for Linking Cell Molecular Activity with Emerging Tissue Morphology. Natural Computing Series, 2014, , 507-524.	2.2	3
43	Mathematical Modeling of Tumor Organoids: Toward Personalized Medicine. Cancer Drug Discovery and Development, 2018, , 193-213.	0.2	1