

# Rakesh K Jain

## List of Publications by Citations

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634  
papers

114,211  
citations

155  
h-index

329  
g-index

717  
ext. papers

128,954  
ext. citations

12  
avg, IF

8.85  
L-index

#	Paper	IF	Citations
634	Angiogenesis in cancer and other diseases. <i>Nature</i> , <b>2000</b> , 407, 249-57	50.4	6972
633	Photodynamic therapy for cancer. <i>Nature Reviews Cancer</i> , <b>2003</b> , 3, 380-7	31.3	4576
632	Normalization of tumor vasculature: an emerging concept in antiangiogenic therapy. <i>Science</i> , <b>2005</b> , 307, 58-62	33.3	4088
631	Molecular mechanisms and clinical applications of angiogenesis. <i>Nature</i> , <b>2011</b> , 473, 298-307	50.4	3534
630	Role of HIF-1alpha in hypoxia-mediated apoptosis, cell proliferation and tumour angiogenesis. <i>Nature</i> , <b>1998</b> , 394, 485-90	50.4	2294
629	Delivering nanomedicine to solid tumors. <i>Nature Reviews Clinical Oncology</i> , <b>2010</b> , 7, 653-64	19.4	2279
628	Molecular regulation of vessel maturation. <i>Nature Medicine</i> , <b>2003</b> , 9, 685-93	50.5	2006
627	Understanding the tumor immune microenvironment (TIME) for effective therapy. <i>Nature Medicine</i> , <b>2018</b> , 24, 541-550	50.5	1772
626	Normalizing tumor vasculature with anti-angiogenic therapy: a new paradigm for combination therapy. <i>Nature Medicine</i> , <b>2001</b> , 7, 987-9	50.5	1686
625	Direct evidence that the VEGF-specific antibody bevacizumab has antivasular effects in human rectal cancer. <i>Nature Medicine</i> , <b>2004</b> , 10, 145-7	50.5	1648
624	AZD2171, a pan-VEGF receptor tyrosine kinase inhibitor, normalizes tumor vasculature and alleviates edema in glioblastoma patients. <i>Cancer Cell</i> , <b>2007</b> , 11, 83-95	24.3	1493
623	Interstitial pH and pO <sub>2</sub> gradients in solid tumors in vivo: high-resolution measurements reveal a lack of correlation. <i>Nature Medicine</i> , <b>1997</b> , 3, 177-82	50.5	1329
622	Openings between defective endothelial cells explain tumor vessel leakiness. <i>American Journal of Pathology</i> , <b>2000</b> , 156, 1363-80	5.8	1249
621	Principles and mechanisms of vessel normalization for cancer and other angiogenic diseases. <i>Nature Reviews Drug Discovery</i> , <b>2011</b> , 10, 417-27	64.1	1102
620	Hyperplasia of lymphatic vessels in VEGF-C transgenic mice. <i>Science</i> , <b>1997</b> , 276, 1423-5	33.3	1056
619	Normalization of the vasculature for treatment of cancer and other diseases. <i>Physiological Reviews</i> , <b>2011</b> , 91, 1071-121	47.9	1040
618	Angiogenesis in brain tumours. <i>Nature Reviews Neuroscience</i> , <b>2007</b> , 8, 610-22	13.5	1038

617	Compact high-quality CdSe-CdS core-shell nanocrystals with narrow emission linewidths and suppressed blinking. <i>Nature Materials</i> , <b>2013</b> , 12, 445-51	27	959
616	Vascular normalization by vascular endothelial growth factor receptor 2 blockade induces a pressure gradient across the vasculature and improves drug penetration in tumors. <i>Cancer Research</i> , <b>2004</b> , 64, 3731-6	10.1	953
615	The role of nitric oxide in tumour progression. <i>Nature Reviews Cancer</i> , <b>2006</b> , 6, 521-34	31.3	944
614	Antiangiogenesis strategies revisited: from starving tumors to alleviating hypoxia. <i>Cancer Cell</i> , <b>2014</b> , 26, 605-22	24.3	881
613	Lessons from phase III clinical trials on anti-VEGF therapy for cancer. <i>Nature Clinical Practice Oncology</i> , <b>2006</b> , 3, 24-40		865
612	Multistage nanoparticle delivery system for deep penetration into tumor tissue. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 2426-31	11.5	808
611	A framework for advancing our understanding of cancer-associated fibroblasts. <i>Nature Reviews Cancer</i> , <b>2020</b> , 20, 174-186	31.3	790
610	Abnormalities in pericytes on blood vessels and endothelial sprouts in tumors. <i>American Journal of Pathology</i> , <b>2002</b> , 160, 985-1000	5.8	783
609	Lymphatic metastasis in the absence of functional intratumor lymphatics. <i>Science</i> , <b>2002</b> , 296, 1883-6	33.3	773
608	Tumor induction of VEGF promoter activity in stromal cells. <i>Cell</i> , <b>1998</b> , 94, 715-25	56.2	767
607	Normalization of tumour blood vessels improves the delivery of nanomedicines in a size-dependent manner. <i>Nature Nanotechnology</i> , <b>2012</b> , 7, 383-8	28.7	766
606	Normalizing tumor microenvironment to treat cancer: bench to bedside to biomarkers. <i>Journal of Clinical Oncology</i> , <b>2013</b> , 31, 2205-18	2.2	751
605	Barriers to drug delivery in solid tumors. <i>Scientific American</i> , <b>1994</b> , 271, 58-65	0.5	742
604	Transport of molecules across tumor vasculature. <i>Cancer and Metastasis Reviews</i> , <b>1987</b> , 6, 559-93	9.6	703
603	Dynamic imaging of collagen and its modulation in tumors in vivo using second-harmonic generation. <i>Nature Medicine</i> , <b>2003</b> , 9, 796-800	50.5	692
602	Enhancing cancer immunotherapy using antiangiogenics: opportunities and challenges. <i>Nature Reviews Clinical Oncology</i> , <b>2018</b> , 15, 325-340	19.4	627
601	Transport of fluid and macromolecules in tumors. I. Role of interstitial pressure and convection. <i>Microvascular Research</i> , <b>1989</b> , 37, 77-104	3.7	622
600	Strategies for advancing cancer nanomedicine. <i>Nature Materials</i> , <b>2013</b> , 12, 958-62	27	616

599	Pathology: cancer cells compress intratumour vessels. <i>Nature</i> , <b>2004</b> , 427, 695	50.4	594
598	Vascular normalizing doses of antiangiogenic treatment reprogram the immunosuppressive tumor microenvironment and enhance immunotherapy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 17561-6	11.5	592
597	Kinetics of vascular normalization by VEGFR2 blockade governs brain tumor response to radiation: role of oxygenation, angiopoietin-1, and matrix metalloproteinases. <i>Cancer Cell</i> , <b>2004</b> , 6, 553-63	24.3	592
596	Solid stress inhibits the growth of multicellular tumor spheroids. <i>Nature Biotechnology</i> , <b>1997</b> , 15, 778-83	44.5	581
595	Tissue engineering: creation of long-lasting blood vessels. <i>Nature</i> , <b>2004</b> , 428, 138-9	50.4	579
594	Tumour biology: herceptin acts as an anti-angiogenic cocktail. <i>Nature</i> , <b>2002</b> , 416, 279-80	50.4	562
593	Angiotensin inhibition enhances drug delivery and potentiates chemotherapy by decompressing tumour blood vessels. <i>Nature Communications</i> , <b>2013</b> , 4, 2516	17.4	556
592	Three-dimensional microscopy of the tumor microenvironment in vivo using optical frequency domain imaging. <i>Nature Medicine</i> , <b>2009</b> , 15, 1219-23	50.5	544
591	Transport of molecules, particles, and cells in solid tumors. <i>Annual Review of Biomedical Engineering</i> , <b>1999</b> , 1, 241-63	12	538
590	In vivo measurement of gene expression, angiogenesis and physiological function in tumors using multiphoton laser scanning microscopy. <i>Nature Medicine</i> , <b>2001</b> , 7, 864-8	50.5	528
589	Mosaic blood vessels in tumors: frequency of cancer cells in contact with flowing blood. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2000</b> , 97, 14608-13	11.5	528
588	The role of mechanical forces in tumor growth and therapy. <i>Annual Review of Biomedical Engineering</i> , <b>2014</b> , 16, 321-46	12	527
587	Tumor microvasculature and microenvironment: targets for anti-angiogenesis and normalization. <i>Microvascular Research</i> , <b>2007</b> , 74, 72-84	3.7	522
586	Causes, consequences, and remedies for growth-induced solid stress in murine and human tumors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 15101-8	11.5	512
585	Delivery of molecular and cellular medicine to solid tumors. <i>Advanced Drug Delivery Reviews</i> , <b>2001</b> , 46, 149-68	18.5	508
584	Dissecting tumour pathophysiology using intravital microscopy. <i>Nature Reviews Cancer</i> , <b>2002</b> , 2, 266-76	31.3	494
583	Biomarkers of response and resistance to antiangiogenic therapy. <i>Nature Reviews Clinical Oncology</i> , <b>2009</b> , 6, 327-38	19.4	487
582	Microvascular permeability of normal and neoplastic tissues. <i>Microvascular Research</i> , <b>1986</b> , 31, 288-305	3.7	477

581	Effect of vascular normalization by antiangiogenic therapy on interstitial hypertension, peritumor edema, and lymphatic metastasis: insights from a mathematical model. <i>Cancer Research</i> , <b>2007</b> , 67, 2729-35	10.1	466
580	Losartan inhibits collagen I synthesis and improves the distribution and efficacy of nanotherapeutics in tumors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 2909-14	11.5	455
579	Bone marrow-derived mesenchymal stem cells facilitate engineering of long-lasting functional vasculature. <i>Blood</i> , <b>2008</b> , 111, 4551-8	2.2	450
578	Physiologically based pharmacokinetic modeling: principles and applications. <i>Journal of Pharmaceutical Sciences</i> , <b>1983</b> , 72, 1103-27	3.9	446
577	Diffusion of macromolecules in agarose gels: comparison of linear and globular configurations. <i>Biophysical Journal</i> , <b>1999</b> , 77, 542-52	2.9	437
576	Increased microvascular density and enhanced leukocyte rolling and adhesion in the skin of VEGF transgenic mice. <i>Journal of Investigative Dermatology</i> , <b>1998</b> , 111, 1-6	4.3	435
575	Efficacy, safety, and biomarkers of neoadjuvant bevacizumab, radiation therapy, and fluorouracil in rectal cancer: a multidisciplinary phase II study. <i>Journal of Clinical Oncology</i> , <b>2009</b> , 27, 3020-6	2.2	433
574	Efficacy, safety, and potential biomarkers of sunitinib monotherapy in advanced hepatocellular carcinoma: a phase II study. <i>Journal of Clinical Oncology</i> , <b>2009</b> , 27, 3027-35	2.2	417
573	Phase II study of cediranib, an oral pan-vascular endothelial growth factor receptor tyrosine kinase inhibitor, in patients with recurrent glioblastoma. <i>Journal of Clinical Oncology</i> , <b>2010</b> , 28, 2817-23	2.2	414
572	Tumor microenvironment abnormalities: causes, consequences, and strategies to normalize. <i>Journal of Cellular Biochemistry</i> , <b>2007</b> , 101, 937-49	4.7	411
571	Delivery of novel therapeutic agents in tumors: physiological barriers and strategies. <i>Journal of the National Cancer Institute</i> , <b>1989</b> , 81, 570-6	9.7	411
570	Delivery of molecular and nanoscale medicine to tumors: transport barriers and strategies. <i>Annual Review of Chemical and Biomolecular Engineering</i> , <b>2011</b> , 2, 281-98	8.9	407
569	Vascular and interstitial barriers to delivery of therapeutic agents in tumors. <i>Cancer and Metastasis Reviews</i> , <b>1990</b> , 9, 253-66	9.6	402
568	Malignant cells facilitate lung metastasis by bringing their own soil. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 21677-82	11.5	401
567	Diffusion and convection in collagen gels: implications for transport in the tumor interstitium. <i>Biophysical Journal</i> , <b>2002</b> , 83, 1650-60	2.9	401
566	Spontaneous rupture of thin liquid films. <i>Journal of the Chemical Society, Faraday Transactions 2</i> , <b>1974</b> , 70, 132		400
565	Vascular normalization as an emerging strategy to enhance cancer immunotherapy. <i>Cancer Research</i> , <b>2013</b> , 73, 2943-8	10.1	398
564	The blood-brain barrier and blood-tumour barrier in brain tumours and metastases. <i>Nature Reviews Cancer</i> , <b>2020</b> , 20, 26-41	31.3	395

563	Phase III randomized trial comparing the efficacy of cediranib as monotherapy, and in combination with lomustine, versus lomustine alone in patients with recurrent glioblastoma. <i>Journal of Clinical Oncology</i> , <b>2013</b> , 31, 3212-8	2.2	392
562	Quantum dots spectrally distinguish multiple species within the tumor milieu in vivo. <i>Nature Medicine</i> , <b>2005</b> , 11, 678-82	50.5	381
561	Surrogate markers for antiangiogenic therapy and dose-limiting toxicities for bevacizumab with radiation and chemotherapy: continued experience of a phase I trial in rectal cancer patients. <i>Journal of Clinical Oncology</i> , <b>2005</b> , 23, 8136-9	2.2	371
560	Mechanical compression drives cancer cells toward invasive phenotype. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 911-6	11.5	368
559	The biology of brain metastases-translation to new therapies. <i>Nature Reviews Clinical Oncology</i> , <b>2011</b> , 8, 344-56	19.4	363
558	HCC and angiogenesis: possible targets and future directions. <i>Nature Reviews Clinical Oncology</i> , <b>2011</b> , 8, 292-301	19.4	361
557	Next-generation optical imaging with short-wave infrared quantum dots. <i>Nature Biomedical Engineering</i> , <b>2017</b> , 1,	19	360
556	Hearing improvement after bevacizumab in patients with neurofibromatosis type 2. <i>New England Journal of Medicine</i> , <b>2009</b> , 361, 358-67	59.2	355
555	During angiogenesis, vascular endothelial growth factor and basic fibroblast growth factor regulate natural killer cell adhesion to tumor endothelium. <i>Nature Medicine</i> , <b>1996</b> , 2, 992-7	50.5	355
554	Fluorescent nanorods and nanospheres for real-time in vivo probing of nanoparticle shape-dependent tumor penetration. <i>Angewandte Chemie - International Edition</i> , <b>2011</b> , 50, 11417-20	16.4	343
553	Quantitative angiogenesis assays: progress and problems. <i>Nature Medicine</i> , <b>1997</b> , 3, 1203-8	50.5	343
552	CXCL12 (SDF1alpha)-CXCR4/CXCR7 pathway inhibition: an emerging sensitizer for anticancer therapies?. <i>Clinical Cancer Research</i> , <b>2011</b> , 17, 2074-80	12.9	337
551	Degradation of fibrillar collagen in a human melanoma xenograft improves the efficacy of an oncolytic herpes simplex virus vector. <i>Cancer Research</i> , <b>2006</b> , 66, 2509-13	10.1	328
550	A "vascular normalization index" as potential mechanistic biomarker to predict survival after a single dose of cediranib in recurrent glioblastoma patients. <i>Cancer Research</i> , <b>2009</b> , 69, 5296-300	10.1	323
549	Tumor microvasculature and microenvironment: novel insights through intravital imaging in pre-clinical models. <i>Microcirculation</i> , <b>2010</b> , 17, 206-25	2.9	318
548	Shortwave infrared fluorescence imaging with the clinically approved near-infrared dye indocyanine green. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 4465-4470	11.5	317
547	The candidate tumour suppressor protein ING4 regulates brain tumour growth and angiogenesis. <i>Nature</i> , <b>2004</b> , 428, 328-32	50.4	315
546	The next frontier of molecular medicine: delivery of therapeutics. <i>Nature Medicine</i> , <b>1998</b> , 4, 655-7	50.5	312

545	PF-06463922, an ALK/ROS1 Inhibitor, Overcomes Resistance to First and Second Generation ALK Inhibitors in Preclinical Models. <i>Cancer Cell</i> , <b>2015</b> , 28, 70-81	24.3	301
544	Micro-environmental mechanical stress controls tumor spheroid size and morphology by suppressing proliferation and inducing apoptosis in cancer cells. <i>PLoS ONE</i> , <b>2009</b> , 4, e4632	3.7	298
543	Acid production in glycolysis-impaired tumors provides new insights into tumor metabolism. <i>Clinical Cancer Research</i> , <b>2002</b> , 8, 1284-91	12.9	291
542	Consensus guidelines for the use and interpretation of angiogenesis assays. <i>Angiogenesis</i> , <b>2018</b> , 21, 425-438	13.8	285
541	Differential in vivo potential of endothelial progenitor cells from human umbilical cord blood and adult peripheral blood to form functional long-lasting vessels. <i>Blood</i> , <b>2008</b> , 111, 1302-5	2.2	281
540	Imaging steps of lymphatic metastasis reveals that vascular endothelial growth factor-C increases metastasis by increasing delivery of cancer cells to lymph nodes: therapeutic implications. <i>Cancer Research</i> , <b>2006</b> , 66, 8065-75	10.1	281
539	Combining two strategies to improve perfusion and drug delivery in solid tumors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 18632-7	11.5	280
538	CXCR4 inhibition in tumor microenvironment facilitates anti-programmed death receptor-1 immunotherapy in sorafenib-treated hepatocellular carcinoma in mice. <i>Hepatology</i> , <b>2015</b> , 61, 1591-602	11.2	276
537	Diffusion of particles in the extracellular matrix: the effect of repulsive electrostatic interactions. <i>Biophysical Journal</i> , <b>2010</b> , 99, 1342-9	2.9	273
536	Improved tumor oxygenation and survival in glioblastoma patients who show increased blood perfusion after cediranib and chemoradiation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 19059-64	11.5	266
535	Coevolution of solid stress and interstitial fluid pressure in tumors during progression: implications for vascular collapse. <i>Cancer Research</i> , <b>2013</b> , 73, 3833-41	10.1	263
534	Paracrine regulation of angiogenesis and adipocyte differentiation during in vivo adipogenesis. <i>Circulation Research</i> , <b>2003</b> , 93, e88-97	15.7	263
533	A nanoparticle size series for in vivo fluorescence imaging. <i>Angewandte Chemie - International Edition</i> , <b>2010</b> , 49, 8649-52	16.4	262
532	Platelets and platelet adhesion support angiogenesis while preventing excessive hemorrhage. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 855-60	11.5	260
531	Cationic charge determines the distribution of liposomes between the vascular and extravascular compartments of tumors. <i>Cancer Research</i> , <b>2002</b> , 62, 6831-6	10.1	257
530	Endothelial cells derived from human embryonic stem cells form durable blood vessels in vivo. <i>Nature Biotechnology</i> , <b>2007</b> , 25, 317-8	44.5	255
529	Edema control by cediranib, a vascular endothelial growth factor receptor-targeted kinase inhibitor, prolongs survival despite persistent brain tumor growth in mice. <i>Journal of Clinical Oncology</i> , <b>2009</b> , 27, 2542-52	2.2	252
528	Transport of fluid and macromolecules in tumors. II. Role of heterogeneous perfusion and lymphatics. <i>Microvascular Research</i> , <b>1990</b> , 40, 246-63	3.7	250

527	Blocking platelet-derived growth factor-D/platelet-derived growth factor receptor beta signaling inhibits human renal cell carcinoma progression in an orthotopic mouse model. <i>Cancer Research</i> , <b>2005</b> , 65, 5711-9	10.1	242
526	Compact biocompatible quantum dots via RAFT-mediated synthesis of imidazole-based random copolymer ligand. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 472-83	16.4	241
525	A protocol for phenotypic detection and enumeration of circulating endothelial cells and circulating progenitor cells in human blood. <i>Nature Protocols</i> , <b>2007</b> , 2, 805-10	18.8	241
524	Origins of lymphatic and distant metastases in human colorectal cancer. <i>Science</i> , <b>2017</b> , 357, 55-60	33.3	239
523	Chemotherapy elicits pro-metastatic extracellular vesicles in breast cancer models. <i>Nature Cell Biology</i> , <b>2019</b> , 21, 190-202	23.4	239
522	Increased survival of glioblastoma patients who respond to antiangiogenic therapy with elevated blood perfusion. <i>Cancer Research</i> , <b>2012</b> , 72, 402-7	10.1	232
521	TGF- $\beta$ blockade improves the distribution and efficacy of therapeutics in breast carcinoma by normalizing the tumor stroma. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 16618-23	11.5	230
520	Reengineering the Physical Microenvironment of Tumors to Improve Drug Delivery and Efficacy: From Mathematical Modeling to Bench to Bedside. <i>Trends in Cancer</i> , <b>2018</b> , 4, 292-319	12.5	229
519	Recruitment of myeloid but not endothelial precursor cells facilitates tumor regrowth after local irradiation. <i>Cancer Research</i> , <b>2010</b> , 70, 5679-85	10.1	225
518	Acidic extracellular pH induces vascular endothelial growth factor (VEGF) in human glioblastoma cells via ERK1/2 MAPK signaling pathway: mechanism of low pH-induced VEGF. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 11368-74	5.4	225
517	BIM expression in treatment-naive cancers predicts responsiveness to kinase inhibitors. <i>Cancer Discovery</i> , <b>2011</b> , 1, 352-65	24.4	224
516	Vascular normalization as a therapeutic strategy for malignant and nonmalignant disease. <i>Cold Spring Harbor Perspectives in Medicine</i> , <b>2012</b> , 2, a006486	5.4	218
515	Intussusceptive microvascular growth in a human colon adenocarcinoma xenograft: a novel mechanism of tumor angiogenesis. <i>Microvascular Research</i> , <b>1996</b> , 51, 260-72	3.7	218
514	Role of tumor vascular architecture in nutrient and drug delivery: an invasion percolation-based network model. <i>Microvascular Research</i> , <b>1996</b> , 51, 327-46	3.7	216
513	Tumor angiogenesis and accessibility: role of vascular endothelial growth factor. <i>Seminars in Oncology</i> , <b>2002</b> , 29, 3-9	5.5	214
512	Ang-2/VEGF bispecific antibody reprograms macrophages and resident microglia to anti-tumor phenotype and prolongs glioblastoma survival. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 4476-81	11.5	214
511	Obesity-Induced Inflammation and Desmoplasia Promote Pancreatic Cancer Progression and Resistance to Chemotherapy. <i>Cancer Discovery</i> , <b>2016</b> , 6, 852-69	24.4	213
510	Solid stress generated by spheroid growth estimated using a linear poroelasticity model. <i>Microvascular Research</i> , <b>2003</b> , 66, 204-12	3.7	213



509	Total Neoadjuvant Therapy With FOLFIRINOX in Combination With Losartan Followed by Chemoradiotherapy for Locally Advanced Pancreatic Cancer: A Phase 2 Clinical Trial. <i>JAMA Oncology</i> , <b>2019</b> , 5, 1020-1027	13.4	205
508	Cancer imaging by optical coherence tomography: preclinical progress and clinical potential. <i>Nature Reviews Cancer</i> , <b>2012</b> , 12, 363-8	31.3	199
507	Magneto-fluorescent core-shell supernanoparticles. <i>Nature Communications</i> , <b>2014</b> , 5, 5093	17.4	197
506	Impaired lymphatic contraction associated with immunosuppression. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 18784-9	11.5	197
505	Improving cancer immunotherapy using nanomedicines: progress, opportunities and challenges. <i>Nature Reviews Clinical Oncology</i> , <b>2020</b> , 17, 251-266	19.4	196
504	Active versus passive mechanisms in metastasis: do cancer cells crawl into vessels, or are they pushed?. <i>Lancet Oncology</i> , <b>2007</b> , 8, 444-8	21.7	196
503	Dual inhibition of Ang-2 and VEGF receptors normalizes tumor vasculature and prolongs survival in glioblastoma by altering macrophages. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 4470-5	11.5	195
502	A genetic <i>Xenopus laevis</i> tadpole model to study lymphangiogenesis. <i>Nature Medicine</i> , <b>2005</b> , 11, 998-1004	11.5	191
501	Role of eNOS in neovascularization: NO for endothelial progenitor cells. <i>Trends in Molecular Medicine</i> , <b>2004</b> , 10, 143-5	11.5	187
500	p53 controls radiation-induced gastrointestinal syndrome in mice independent of apoptosis. <i>Science</i> , <b>2010</b> , 327, 593-6	33.3	179
499	Normalizing Function of Tumor Vessels: Progress, Opportunities, and Challenges. <i>Annual Review of Physiology</i> , <b>2019</b> , 81, 505-534	23.1	174
498	Targeting placental growth factor/neuropilin 1 pathway inhibits growth and spread of medulloblastoma. <i>Cell</i> , <b>2013</b> , 152, 1065-76	56.2	174
497	Design considerations for nanotherapeutics in oncology. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , <b>2015</b> , 11, 1893-907	6	173
496	Solid stress and elastic energy as measures of tumour mechanopathology. <i>Nature Biomedical Engineering</i> , <b>2016</b> , 1,	19	171
495	Microvascular permeability of albumin, vascular surface area, and vascular volume measured in human adenocarcinoma LS174T using dorsal chamber in SCID mice. <i>Microvascular Research</i> , <b>1993</b> , 45, 269-89	3.7	170
494	Vessel architectural imaging identifies cancer patient responders to anti-angiogenic therapy. <i>Nature Medicine</i> , <b>2013</b> , 19, 1178-83	50.5	169
493	Scale-invariant behavior and vascular network formation in normal and tumor tissue. <i>Physical Review Letters</i> , <b>1995</b> , 75, 2428-2431	7.4	168
492	Cell-surface sensors for real-time probing of cellular environments. <i>Nature Nanotechnology</i> , <b>2011</b> , 6, 524-31	28.7	167

491	InAs(ZnCdS) quantum dots optimized for biological imaging in the near-infrared. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 470-1	16.4	164
490	A mouse-human phase 1 co-clinical trial of a protease-activated fluorescent probe for imaging cancer. <i>Science Translational Medicine</i> , <b>2016</b> , 8, 320ra4	17.5	163
489	Glioblastoma recurrence after cediranib therapy in patients: lack of "rebound" revascularization as mode of escape. <i>Cancer Research</i> , <b>2011</b> , 71, 19-28	10.1	163
488	Role of nitric oxide in angiogenesis and microcirculation in tumors. <i>Cancer and Metastasis Reviews</i> , <b>1998</b> , 17, 77-89	9.6	163
487	Transport of fluid and macromolecules in tumors. III. Role of binding and metabolism. <i>Microvascular Research</i> , <b>1991</b> , 41, 5-23	3.7	163
486	Role of vascular density and normalization in response to neoadjuvant bevacizumab and chemotherapy in breast cancer patients. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 14325-30	11.5	161
485	Vasculogenic mimicry: how convincing, how novel, and how significant?. <i>American Journal of Pathology</i> , <b>2000</b> , 156, 383-8	5.8	160
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