

Dai Fukumura

List of Publications by Year in descending order

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122
papers

28,633
citations

8749

75
h-index

24961

109
g-index

125
all docs

125
docs citations

125
times ranked

34091
citing authors

#	ARTICLE	IF	CITATIONS
1	Role of HIF-1 α in hypoxia-mediated apoptosis, cell proliferation and tumour angiogenesis. <i>Nature</i> , 1998, 394, 485-490.	13.7	2,565
2	Normalization of the Vasculature for Treatment of Cancer and Other Diseases. <i>Physiological Reviews</i> , 2011, 91, 1071-1121.	13.1	1,275
3	Enhancing cancer immunotherapy using antiangiogenics: opportunities and challenges. <i>Nature Reviews Clinical Oncology</i> , 2018, 15, 325-340.	12.5	1,192
4	Hyperplasia of Lymphatic Vessels in VEGF-C Transgenic Mice. <i>Science</i> , 1997, 276, 1423-1425.	6.0	1,160
5	The role of nitric oxide in tumour progression. <i>Nature Reviews Cancer</i> , 2006, 6, 521-534.	12.8	1,099
6	Normalization of tumour blood vessels improves the delivery of nanomedicines in a size-dependent manner. <i>Nature Nanotechnology</i> , 2012, 7, 383-388.	15.6	928
7	Tumor Induction of VEGF Promoter Activity in Stromal Cells. <i>Cell</i> , 1998, 94, 715-725.	13.5	861
8	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> , 2012, 109, 17561-17566.	3.3	800
9	Kinetics of vascular normalization by VEGFR2 blockade governs brain tumor response to radiation. <i>Cancer Cell</i> , 2004, 6, 553-563.	7.7	789
10	Three-dimensional microscopy of the tumor microenvironment in vivo using optical frequency domain imaging. <i>Nature Medicine</i> , 2009, 15, 1219-1223.	15.2	692
11	Herceptin acts as an anti-angiogenic cocktail. <i>Nature</i> , 2002, 416, 279-280.	13.7	664
12	Creation of long-lasting blood vessels. <i>Nature</i> , 2004, 428, 138-139.	13.7	644
13	In vivo measurement of gene expression, angiogenesis and physiological function in tumors using multiphoton laser scanning microscopy. <i>Nature Medicine</i> , 2001, 7, 864-868.	15.2	600
14	Tumor microvasculature and microenvironment: Targets for anti-angiogenesis and normalization. <i>Microvascular Research</i> , 2007, 74, 72-84.	1.1	592
15	Dissecting tumour pathophysiology using intravital microscopy. <i>Nature Reviews Cancer</i> , 2002, 2, 266-276.	12.8	576
16	Vascular Normalization as an Emerging Strategy to Enhance Cancer Immunotherapy. <i>Cancer Research</i> , 2013, 73, 2943-2948.	0.4	535
17	Increased Microvascular Density and Enhanced Leukocyte Rolling and Adhesion in the Skin of VEGF Transgenic Mice. <i>Journal of Investigative Dermatology</i> , 1998, 111, 1-6.	0.3	498
18	Tumor microenvironment abnormalities: Causes, consequences, and strategies to normalize. <i>Journal of Cellular Biochemistry</i> , 2007, 101, 937-949.	1.2	498

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19	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> , 2018, 115, 4465-4470.	3.3	498
20	Bone marrow-derived mesenchymal stem cells facilitate engineering of long-lasting functional vasculature. <i>Blood</i> , 2008, 111, 4551-4558.	0.6	493
21	The biology of brain metastases—translation to new therapies. <i>Nature Reviews Clinical Oncology</i> , 2011, 8, 344-356.	12.5	443
22	Consensus guidelines for the use and interpretation of angiogenesis assays. <i>Angiogenesis</i> , 2018, 21, 425-532.	3.7	429
23	Quantum dots spectrally distinguish multiple species within the tumor milieu in vivo. <i>Nature Medicine</i> , 2005, 11, 678-682.	15.2	419
24	Fluorescent Nanorods and Nanospheres for Real-Time In Vivo Probing of Nanoparticle Shape-Dependent Tumor Penetration. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 11417-11420.	7.2	399
25	CXCL12 (SDF1 β)-CXCR4/CXCR7 Pathway Inhibition: An Emerging Sensitizer for Anticancer Therapies?. <i>Clinical Cancer Research</i> , 2011, 17, 2074-2080.	3.2	377
26	Tumor Microvasculature and Microenvironment: Novel Insights Through Intravital Imaging in Pre-Clinical Models. <i>Microcirculation</i> , 2010, 17, 206-225.	1.0	376
27	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> , 2006, 66, 8065-8075.	0.4	323
28	Obesity-Induced Inflammation and Desmoplasia Promote Pancreatic Cancer Progression and Resistance to Chemotherapy. <i>Cancer Discovery</i> , 2016, 6, 852-869.	7.7	318
29	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> , 2008, 111, 1302-1305.	0.6	311
30	Paracrine Regulation of Angiogenesis and Adipocyte Differentiation During In Vivo Adipogenesis. <i>Circulation Research</i> , 2003, 93, e88-97.	2.0	305
31	A Nanoparticle Size Series for In Vivo Fluorescence Imaging. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 8649-8652.	7.2	289
32	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> , 2016, 113, 4476-4481.	3.3	287
33	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> , 2009, 27, 2542-2552.	0.8	285
34	Endothelial cells derived from human embryonic stem cells form durable blood vessels in vivo. <i>Nature Biotechnology</i> , 2007, 25, 317-318.	9.4	282
35	Solid stress and elastic energy as measures of tumour mechanopathology. <i>Nature Biomedical Engineering</i> , 2017, 1, .	11.6	280
36	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> , 2016, 113, 4470-4475.	3.3	251

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37	Acidic Extracellular pH Induces Vascular Endothelial Growth Factor (VEGF) in Human Glioblastoma Cells via ERK1/2 MAPK Signaling Pathway. <i>Journal of Biological Chemistry</i> , 2002, 277, 11368-11374.	1.6	247
38	Impaired lymphatic contraction associated with immunosuppression. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 18784-18789.	3.3	246
39	Targeting Placental Growth Factor/Neuropilin 1 Pathway Inhibits Growth and Spread of Medulloblastoma. <i>Cell</i> , 2013, 152, 1065-1076.	13.5	209
40	Role of nitric oxide in angiogenesis and microcirculation in tumors. , 1998, 17, 77-89.		184
41	Anti-VEGF therapy induces ECM remodeling and mechanical barriers to therapy in colorectal cancer liver metastases. <i>Science Translational Medicine</i> , 2016, 8, 360ra135.	5.8	184
42	NO mediates mural cell recruitment and vessel morphogenesis in murine melanomas and tissue-engineered blood vessels. <i>Journal of Clinical Investigation</i> , 2005, 115, 1816-1827.	3.9	167
43	Perivascular nitric oxide gradients normalize tumor vasculature. <i>Nature Medicine</i> , 2008, 14, 255-257.	15.2	161
44	Mechanisms of enhanced drug delivery in brain metastases with focused ultrasound-induced blood-tumor barrier disruption. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E8717-E8726.	3.3	159
45	In vivo wide-area cellular imaging by side-view endomicroscopy. <i>Nature Methods</i> , 2010, 7, 303-305.	9.0	155
46	Obesity promotes resistance to anti-VEGF therapy in breast cancer by up-regulating IL-6 and potentially FGF-2. <i>Science Translational Medicine</i> , 2018, 10, .	5.8	153
47	Fatty acid synthesis is required for breast cancer brain metastasis. <i>Nature Cancer</i> , 2021, 2, 414-428.	5.7	147
48	Evidence for incorporation of bone marrow-derived endothelial cells into perfused blood vessels in tumors. <i>Blood</i> , 2006, 107, 2774-2776.	0.6	141
49	Peritumor Lymphatics Induced by Vascular Endothelial Growth Factor-C Exhibit Abnormal Function. <i>Cancer Research</i> , 2004, 64, 4400-4404.	0.4	139
50	Imaging angiogenesis and the microenvironment. <i>Apmis</i> , 2008, 116, 695-715.	0.9	139
51	Generation of functionally competent and durable engineered blood vessels from human induced pluripotent stem cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 12774-12779.	3.3	137
52	Combined targeting of HER2 and VEGFR2 for effective treatment of HER2-amplified breast cancer brain metastases. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, E3119-27.	3.3	131
53	Tumor-host interactions in the gallbladder suppress distal angiogenesis and tumor growth: Involvement of transforming growth factor β 1. <i>Nature Medicine</i> , 1999, 5, 1203-1208.	15.2	129
54	Endothelial Nitric Oxide Synthase Mediates Lymphangiogenesis and Lymphatic Metastasis. <i>Cancer Research</i> , 2009, 69, 2801-2808.	0.4	127

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55	Solid stress in brain tumours causes neuronal loss and neurological dysfunction and can be reversed by lithium. <i>Nature Biomedical Engineering</i> , 2019, 3, 230-245.	11.6	127
56	Angiopoietin-2 Interferes with Anti-VEGFR2-Induced Vessel Normalization and Survival Benefit in Mice Bearing Gliomas. <i>Clinical Cancer Research</i> , 2010, 16, 3618-3627.	3.2	125
57	Ly6Clo monocytes drive immunosuppression and confer resistance to anti-VEGFR2 cancer therapy. <i>Journal of Clinical Investigation</i> , 2017, 127, 3039-3051.	3.9	124
58	Role of host microenvironment in angiogenesis and microvascular functions in human breast cancer xenografts: mammary fat pad versus cranial tumors. <i>Clinical Cancer Research</i> , 2002, 8, 1008-13.	3.2	120
59	Onset of Abnormal Blood and Lymphatic Vessel Function and Interstitial Hypertension in Early Stages of Carcinogenesis. <i>Cancer Research</i> , 2006, 66, 3360-3364.	0.4	119
60	Emerging Strategies for Treating Brain Metastases from Breast Cancer. <i>Cancer Cell</i> , 2015, 27, 163-175.	7.7	119
61	Reengineering the Tumor Microenvironment to Alleviate Hypoxia and Overcome Cancer Heterogeneity. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2016, 6, a027094.	2.9	119
62	Vascular accumulation of a novel photosensitizer, MV6401, causes selective thrombosis in tumor vessels after photodynamic therapy. <i>Cancer Research</i> , 2002, 62, 2151-6.	0.4	111
63	Metformin Reduces Desmoplasia in Pancreatic Cancer by Reprogramming Stellate Cells and Tumor-Associated Macrophages. <i>PLoS ONE</i> , 2015, 10, e0141392.	1.1	110
64	PlGF/VEGFR-1 Signaling Promotes Macrophage Polarization and Accelerated Tumor Progression in Obesity. <i>Clinical Cancer Research</i> , 2016, 22, 2993-3004.	3.2	109
65	Pancreas Microenvironment Promotes VEGF Expression and Tumor Growth: Novel Window Models for Pancreatic Tumor Angiogenesis and Microcirculation. <i>Laboratory Investigation</i> , 2001, 81, 1439-1451.	1.7	107
66	Blockade of MMP14 Activity in Murine Breast Carcinomas: Implications for Macrophages, Vessels, and Radiotherapy. <i>Journal of the National Cancer Institute</i> , 2015, 107, .	3.0	106
67	Micelle-Encapsulated Quantum Dot-Porphyrin Assemblies as <i>in Vivo</i> Two-Photon Oxygen Sensors. <i>Journal of the American Chemical Society</i> , 2015, 137, 9832-9842.	6.6	104
68	Effects of Vascular-Endothelial Protein Tyrosine Phosphatase Inhibition on Breast Cancer Vasculature and Metastatic Progression. <i>Journal of the National Cancer Institute</i> , 2013, 105, 1188-1201.	3.0	101
69	Targeting CXCR4-dependent immunosuppressive Ly6C ^{low} monocytes improves antiangiogenic therapy in colorectal cancer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 10455-10460.	3.3	97
70	Targeting Treg cells with GITR activation alleviates resistance to immunotherapy in murine glioblastomas. <i>Nature Communications</i> , 2021, 12, 2582.	5.8	96
71	Leukocyte-endothelial adhesion and angiogenesis in tumors. <i>Cancer and Metastasis Reviews</i> , 1996, 15, 195-204.	2.7	95
72	Hypoxia-Induced Activation of p38 Mitogen-Activated Protein Kinase and Phosphatidylinositol 3-kinase Signaling Pathways Contributes to Expression of Interleukin 8 in Human Ovarian Carcinoma Cells. <i>Clinical Cancer Research</i> , 2004, 10, 701-707.	3.2	92

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73	Endothelial Nitric Oxide Synthase Regulates Microlymphatic Flow via Collecting Lymphatics. <i>Circulation Research</i> , 2004, 95, 204-209.	2.0	91
74	The brain microenvironment mediates resistance in luminal breast cancer to PI3K inhibition through HER3 activation. <i>Science Translational Medicine</i> , 2017, 9, .	5.8	89
75	C-X-C receptor type 4 promotes metastasis by activating p38 mitogen-activated protein kinase in myeloid differentiation antigen (Gr-1)-positive cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 302-307.	3.3	85
76	Blockade of VEGFR2 and Not VEGFR1 Can Limit Diet-Induced Fat Tissue Expansion: Role of Local versus Bone Marrow-Derived Endothelial Cells. <i>PLoS ONE</i> , 2009, 4, e4974.	1.1	83
77	Spatial Charge Configuration Regulates Nanoparticle Transport and Binding Behavior Inâ€Vivo. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 1414-1419.	7.2	81
78	Secreted Gaussia Luciferase as a Biomarker for Monitoring Tumor Progression and Treatment Response of Systemic Metastases. <i>PLoS ONE</i> , 2009, 4, e8316.	1.1	79
79	Placenta Growth Factor Overexpression Inhibits Tumor Growth, Angiogenesis, and Metastasis by Depleting Vascular Endothelial Growth Factor Homodimers in Orthotopic Mouse Models. <i>Cancer Research</i> , 2006, 66, 3971-3977.	0.4	76
80	Obesity and Cancer: An Angiogenic and Inflammatory Link. <i>Microcirculation</i> , 2016, 23, 191-206.	1.0	64
81	Preclinical Efficacy of Ado-trastuzumab Emtansine in the Brain Microenvironment. <i>Journal of the National Cancer Institute</i> , 2016, 108, .	3.0	56
82	Brain Metastasis Cell Lines Panel: A Public Resource of Organotropic Cell Lines. <i>Cancer Research</i> , 2020, 80, 4314-4323.	0.4	51
83	Exercise Training Improves Tumor Control by Increasing CD8+ T-cell Infiltration via CXCR3 Signaling and Sensitizes Breast Cancer to Immune Checkpoint Blockade. <i>Cancer Immunology Research</i> , 2021, 9, 765-778.	1.6	50
84	Differential Transplantability of Tumor-Associated Stromal Cells. <i>Cancer Research</i> , 2004, 64, 5920-5924.	0.4	49
85	A Mathematical Model of Murine Metabolic Regulation by Leptin: Energy Balance and Defense of a Stable Body Weight. <i>Cell Metabolism</i> , 2009, 9, 52-63.	7.2	49
86	Antibody-mediated delivery of viral epitopes to tumors harnesses CMV-specific T cells for cancer therapy. <i>Nature Biotechnology</i> , 2020, 38, 420-425.	9.4	48
87	Video-rate resonant scanning multiphoton microscopy: An emerging technique for intravital imaging of the tumor microenvironment. <i>Intravital</i> , 2012, 1, 60-68.	2.0	43
88	Multistage Nanoparticles for Improved Delivery into Tumor Tissue. <i>Methods in Enzymology</i> , 2012, 508, 109-130.	0.4	43
89	In Vivo Imaging of Tumors. <i>Cold Spring Harbor Protocols</i> , 2010, 2010, pdb.prot5452-pdb.prot5452.	0.2	40
90	Dendritic cell paucity in mismatch repairâ€proficient colorectal cancer liver metastases limits immune checkpoint blockade efficacy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	40

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91	A homing system targets therapeutic T cells to brain cancer. <i>Nature</i> , 2018, 561, 331-337.	13.7	36
92	MicroRNA-378 enhances radiation response in ectopic and orthotopic implantation models of glioblastoma. <i>Journal of Neuro-Oncology</i> , 2018, 136, 63-71.	1.4	22
93	A cerebellar window for intravital imaging of normal and disease states in mice. <i>Nature Protocols</i> , 2017, 12, 2251-2262.	5.5	21
94	Combining losartan with radiotherapy increases tumor control and inhibits lung metastases from a HER2/neu-positive orthotopic breast cancer model. <i>Radiation Oncology</i> , 2021, 16, 48.	1.2	19
95	Mast Cells Contribute to Radiation-Induced Vascular Hyperpermeability. <i>Radiation Research</i> , 2016, 185, 182-189.	0.7	18
96	The local microenvironment matters in preclinical basic and translational studies of cancer immunology and immunotherapy. <i>Cancer Cell</i> , 2022, 40, 701-702.	7.7	18
97	Molecular Regulation of Microlymphatic Formation and Function: Role of Nitric Oxide. <i>Trends in Cardiovascular Medicine</i> , 2005, 15, 169-173.	2.3	16
98	Green fluorescent protein (GFP)-expressing tumor model derived from a spontaneous osteosarcoma in a vascular endothelial growth factor (VEGF)-GFP transgenic mouse. <i>Comparative Medicine</i> , 2005, 55, 236-43.	0.4	13
99	Dual endothelin receptor inhibition enhances T-DM1 efficacy in brain metastases from HER2-positive breast cancer. <i>Npj Breast Cancer</i> , 2019, 5, 4.	2.3	12
100	Measuring Angiogenesis and Hemodynamics in Mice. <i>Cold Spring Harbor Protocols</i> , 2013, 2013, pdb.prot073916.	0.2	10
101	Measuring Vascular Permeability In Vivo. <i>Methods in Molecular Biology</i> , 2016, 1458, 71-85.	0.4	10
102	Longitudinal Tracing of Spontaneous Regression and Anti-angiogenic Response of Individual Microadenomas during Colon Tumorigenesis. <i>Theranostics</i> , 2015, 5, 724-732.	4.6	9
103	A phase II study of preoperative (preop) bevacizumab (bev) followed by dose-dense (dd) doxorubicin (A)/cyclophosphamide (C)/paclitaxel (T) in combination with bev in HER2-negative operable breast cancer (BC).. <i>Journal of Clinical Oncology</i> , 2012, 30, 1026-1026.	0.8	9
104	cGMP-dependent protein kinase I in vascular smooth muscle cells improves ischemic stroke outcome in mice. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2019, 39, 2379-2391.	2.4	8
105	NAD ⁺ -mediated rescue of prenatal forebrain angiogenesis restores postnatal behavior. <i>Science Advances</i> , 2020, 6, .	4.7	8
106	In Vitro and In Vivo Quantification of Adhesion Between Leukocytes and Vascular Endothelium. , 1999, 18, 553-576.		4
107	Role of Microenvironment on Gene Expression, Angiogenesis and Microvascular Function in Tumors. , 2005, , 23-36.		4
108	Multiphoton Phosphorescence Quenching Microscopy Reveals Kinetics of Tumor Oxygenation during Antiangiogenesis and Angiotensin Signaling Inhibition. <i>Clinical Cancer Research</i> , 2022, 28, 3076-3090.	3.2	4

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109	Novel function of RANKL: eNOS activator. <i>Blood</i> , 2007, 109, 1339-1340.	0.6	1
110	Implications of a granulocyteâ€high glioblastoma microenvironment in immune suppression and therapy resistance â€. <i>Journal of Pathology</i> , 2021, 254, 105-108.	2.1	1
111	IMST-40. REPROGRAMMING OF THE TUMOR IMMUNE MICROENVIRONMENT BY AN ANG-2/VEGF BISPECIFIC ANTIBODY DELAYS TUMOR GROWTH AND PROLONGS SURVIVAL IN PRECLINICAL GBM MODELS. <i>Neuro-Oncology</i> , 2016, 18, vi95-vi95.	0.6	0
112	Notice of Removal: Evaluation of anticancer agent transport in brain tumors after focused ultrasound-induced blood-brain/blood-tumor barrier disruption. , 2017, , .		0
113	CADD-32. MECHANISMS OF ENHANCED DRUG DELIVERY IN BRAIN TUMORS WITH FOCUSED ULTRASOUND-INDUCED TRANSIENT BLOOD-TUMOR BARRIER DISRUPTION. <i>Neuro-Oncology</i> , 2018, 20, vi281-vi281.	0.6	0
114	BSCI-10. NEUROLOGICAL DYSFUNCTION CAUSED BY BRAIN TUMOR-GENERATED SOLID STRESS IS REVERSED BY LITHIUM. <i>Neuro-Oncology Advances</i> , 2019, 1, i2-i3.	0.4	0
115	BSCI-09. MECHANISMS OF ENHANCED DRUG DELIVERY IN BRAIN METASTASES WITH FOCUSED ULTRASOUND-INDUCED BLOOD-TUMOR BARRIER DISRUPTION. <i>Neuro-Oncology Advances</i> , 2019, 1, i2-i2.	0.4	0
116	Phenotypic and functional characterization of proangiogenic monocytes. <i>FASEB Journal</i> , 2008, 22, 238.7.	0.2	0
117	Wrapping and Tapping Anastomosis between Engrafted Endothelial Networks and Host Vasculature. <i>FASEB Journal</i> , 2010, 24, 235.5.	0.2	0
118	Neuropilin-1 (Nrp-1) as a prognostic biomarker and potential drug target for pediatric medulloblastoma.. <i>Journal of Clinical Oncology</i> , 2013, 31, 2056-2056.	0.8	0
119	Balancing angiogenic pathways in solid tumors. <i>Microvascular Reviews and Communications</i> , 2014, 7, 23-23.	0.0	0
120	Abstract PO-097: Addition of losartan to FOLFIRINOX and chemoradiation reduces the expression of pro-invasive and immunosuppressive genes in locally-advanced pancreatic cancer. , 2021, , .		0
121	TAMI-05. FATTY ACID SYNTHESIS IS REQUIRED FOR HER2+ BREAST CANCER BRAIN METASTASIS. <i>Neuro-Oncology</i> , 2021, 23, vi199-vi199.	0.6	0
122	Abstract P061: Dendritic cell paucity in mismatch repair-proficient colorectal cancer liver metastases limits the efficacy of immune checkpoint blockade. , 2022, , .		0