Gregory J Czarnota

List of Publications by Year
in descending order

102	2,691	186265	223800
papers	citations	28 h-index	46 g-index

109	109	109	1969
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Tumor radiation response enhancement by acoustical stimulation of the vasculature. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E2033-41.	7.1	160
2	Ultrasound Imaging of Apoptosis in Tumor Response: Novel Preclinical Monitoring of Photodynamic Therapy Effects. Cancer Research, 2008, 68, 8590-8596.	0.9	130
3	Ultrasonic biomicroscopy of viable, dead and apoptotic cells. Ultrasound in Medicine and Biology, 1997, 23, 961-965.	1.5	114
4	Quantitative Ultrasound Evaluation of Tumor Cell Death Response in Locally Advanced Breast Cancer Patients Receiving Chemotherapy. Clinical Cancer Research, 2013, 19, 2163-2174.	7.0	108
5	Ultrasonic Characterization of Whole Cells and Isolated Nuclei. Ultrasound in Medicine and Biology, 2007, 33, 389-401.	1.5	102
6	Quantitative Ultrasound Characterization of Responses to Radiotherapy in Cancer Mouse Models. Clinical Cancer Research, 2009, 15, 2067-2075.	7.0	95
7	Non-invasive evaluation of breast cancer response to chemotherapy using quantitative ultrasonic backscatter parameters. Medical Image Analysis, 2015, 20, 224-236.	11.6	93
8	Quantitative ultrasound characterization of locally advanced breast cancer by estimation of its scatterer properties. Medical Physics, 2014, 41, 012903.	3.0	65
9	Diffuse Optical Spectroscopy Evaluation of Treatment Response in Women with Locally Advanced Breast Cancer Receiving Neoadjuvant Chemotherapy. Translational Oncology, 2012, 5, 238-246.	3.7	62
10	Conventional Frequency Ultrasonic Biomarkers of Cancer Treatment Response In Vivo. Translational Oncology, 2013, 6, 234-IN2.	3.7	59
11	Low-frequency quantitative ultrasound imaging of cell death in vivo. Medical Physics, 2013, 40, 082901.	3.0	57
12	Dose-dependent response of tumor vasculature to radiation therapy in combination with Sunitinib depicted by three-dimensional high-frequency power Doppler ultrasound. Angiogenesis, 2013, 16, 443-454.	7.2	56
13	Early prediction of therapy responses and outcomes in breast cancer patients using quantitative ultrasound spectral texture. Oncotarget, 2014, 5, 3497-3511.	1.8	55
14	Quantitative ultrasound radiomics in predicting response to neoadjuvant chemotherapy in patients with locally advanced breast cancer: Results from multiâ€institutional study. Cancer Medicine, 2020, 9, 5798-5806.	2.8	50
15	A priori Prediction of Neoadjuvant Chemotherapy Response and Survival in Breast Cancer Patients using Quantitative Ultrasound. Scientific Reports, 2017, 7, 45733.	3.3	49
16	Noninvasive Characterization of Locally Advanced Breast Cancer Using Textural Analysis of Quantitative Ultrasound Parametric Images. Translational Oncology, 2014, 7, 759-767.	3.7	46
17	Quantitative MRI Biomarkers of Stereotactic Radiotherapy Outcome in Brain Metastasis. Scientific Reports, 2019, 9, 19830.	3.3	46
18	Breast-Lesion Characterization using Textural Features of Quantitative Ultrasound Parametric Maps. Scientific Reports, 2017, 7, 13638.	3.3	44

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19	Chemotherapy-Response Monitoring of Breast Cancer Patients Using Quantitative Ultrasound-Based Intra-Tumour Heterogeneities. Scientific Reports, 2017, 7, 10352.	3.3	44
20	Breast tumor response to ultrasound mediated excitation of microbubbles and radiation therapy in vivo. Oncoscience, 2016, 3, 98-108.	2.2	44
21	Response monitoring of breast cancer patients receiving neoadjuvant chemotherapy using quantitative ultrasound, texture, and molecular features. PLoS ONE, 2018, 13, e0189634.	2.5	42
22	Quantitative ultrasound radiomics for therapy response monitoring in patients with locally advanced breast cancer: Multi-institutional study results. PLoS ONE, 2020, 15, e0236182.	2.5	41
23	Role of Acid Sphingomyelinase and Ceramide in Mechano-Acoustic Enhancement of Tumor Radiation Responses. Journal of the National Cancer Institute, 2018, 110, 1009-1018.	6.3	38
24	Quantitative ultrasound assessment of breast tumor response to chemotherapy using a multi-parameter approach. Oncotarget, 2016, 7, 45094-45111.	1.8	38
25	Ultrasound detection of cell death. Imaging in Medicine, 2010, 2, 17-28.	0.0	37
26	Predicting breast cancer response to neoadjuvant chemotherapy using pretreatment diffuse optical spectroscopic texture analysis. British Journal of Cancer, 2017, 116, 1329-1339.	6.4	35
27	Monitoring Breast Cancer Response to Neoadjuvant Chemotherapy Using Ultrasound Strain Elastography. Translational Oncology, 2019, 12, 1177-1184.	3.7	35
28	Locally advanced breast cancer treated with neoadjuvant chemotherapy and adjuvant radiotherapy: a retrospective cohort analysis. BMC Cancer, 2019, 19, 306.	2.6	30
29	Magnetic Resonanceâ€“Guided High-Intensity Focused Ultrasound Hyperthermia for Recurrent Rectal Cancer: MR Thermometry Evaluation and Preclinical Validation. International Journal of Radiation Oncology Biology Physics, 2016, 95, 1259-1267.	0.8	29
30	Breast Cancer Treatment Response Monitoring Using Quantitative Ultrasound and Texture Analysis: Comparative Analysis of Analytical Models. Translational Oncology, 2019, 12, 1271-1281.	3.7	29
31	MRI radiomics to differentiate between low grade glioma and glioblastoma peritumoral region. Journal of Neuro-Oncology, 2021, 155, 181-191.	2.9	29
32	Preliminary Investigation of Focused Ultrasound-Facilitated Drug Delivery for the Treatment of Leptomeningeal Metastases. Scientific Reports, 2018, 8, 9013.	3.3	27
33	Quantification of Ultrasonic Scattering Properties of In Vivo Tumor Cell Death in Mouse Models of Breast Cancer. Translational Oncology, 2015, 8, 463-473.	3.7	26
34	Microbubble-based enhancement of radiation effect: Role of cell membrane ceramide metabolism. PLoS ONE, 2017, 12, e0181951.	2.5	25
35	Ultrasound-stimulated microbubble enhancement of radiation treatments: endothelial cell function and mechanism. Oncoscience, 2015, 2, 944-957.	2.2	25
36	Quantitative ultrasound radiomics using texture derivatives in prediction of treatment response to neo-adjuvant chemotherapy for locally advanced breast cancer. Oncotarget, 2020, 11, 3782-3792.	1.8	24

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37	Ultrasound-stimulated microbubble enhancement of radiation response. Biological Chemistry, 2015, 396, 645-657.	2.5	23
38	Quantitative CEST and MT at 1.5T for monitoring treatment response in glioblastoma: early and late tumor progression during chemoradiation. Journal of Neuro-Oncology, 2021, 151, 267-278.	2.9	23
39	Re-irradiation for locally recurrent refractory breast cancer. Oncotarget, 2015, 6, 35051-35062.	1.8	22
40	Dll4-Notch Signalling Blockade Synergizes Combined Ultrasound-Stimulated Microbubble and Radiation Therapy in Human Colon Cancer Xenografts. PLoS ONE, 2014, 9, e93888.	2.5	22
41	Quantitative Ultrasound Characterization of Tumor Cell Death: Ultrasound-Stimulated Microbubbles for Radiation Enhancement. PLoS ONE, 2014, 9, e102343.	2.5	21
42	Early detection of chemotherapyâ€refractory patients by monitoring textural alterations in diffuse optical spectroscopic images. Medical Physics, 2015, 42, 6130-6146.	3.0	20
43	Magnetic Resonanceâ€“Guided High-Intensity-Focused Ultrasound for Palliation of Painful Skeletal Metastases: A Pilot Study. Technology in Cancer Research and Treatment, 2017, 16, 570-576.	1.9	20
44	Sunitinib effects on the radiation response of endothelial and breast tumor cells. Microvascular Research, 2014, 92, 1-9.	2.5	19
45	A priori prediction of tumour response to neoadjuvant chemotherapy in breast cancer patients using quantitative CT and machine learning. Scientific Reports, 2020, 10, 10936.	3.3	19
46	Application of Ultrasound Combined with Microbubbles for Cancer Therapy. International Journal of Molecular Sciences, 2022, 23, 4393.	4.1	19
47	Predictive quantitative ultrasound radiomic markers associated with treatment response in head and neck cancer. Future Science OA, 2020, 6, FSO433.	1.9	18
48	Quantitative mapping of individual voxels in the peritumoral region of IDH-wildtype glioblastoma to distinguish between tumor infiltration and edema. Journal of Neuro-Oncology, 2021, 153, 251-261.	2.9	18
49	Comparison of methods for texture analysis of QUS parametric images in the characterization of breast lesions. PLoS ONE, 2020, 15, e0244965.	2.5	18
50	Evaluation of variability in seroma delineation between clinical specialist radiation therapist and radiation oncologist for adjuvant breast irradiation. Practical Radiation Oncology, 2012, 2, 114-121.	2.1	17
51	Non-invasive Monitoring of Ultrasound-Stimulated Microbubble Radiation Enhancement Using Photoacoustic Imaging. TCRT Express, 2014, 13, 435-44.	1.5	17
52	Quantitative evaluation of cell death response in vitro and inÂvivo using conventional-frequency ultrasound. Oncoscience, 2015, 2, 716-726.	2.2	17
53	Ultrasound-stimulated microbubble radiation enhancement of tumors: Single-dose and fractionated treatment evaluation. PLoS ONE, 2020, 15, e0239456.	2.5	16
54	Breast lesion characterization using Quantitative Ultrasound (QUS) and derivative texture methods. Translational Oncology, 2020, 13, 100827.	3.7	16

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55	A priori prediction of breast tumour response to chemotherapy using quantitative ultrasound imaging and artificial neural networks. Oncotarget, 2019, 10, 3910-3923.	1.8	16
56	Deep learning of quantitative ultrasound multi-parametric images at pre-treatment to predict breast cancer response to chemotherapy. Scientific Reports, 2022, 12, 2244.	3.3	16
57	Ultrasound microbubble potentiated enhancement of hyperthermia-effect in tumours. PLoS ONE, 2019, 14, e0226475.	2.5	15
58	Ultrasound delta-radiomics during radiotherapy to predict recurrence in patients with head and neck squamous cell carcinoma. Clinical and Translational Radiation Oncology, 2021, 28, 62-70.	1.7	14
59	Quantitative ultrasound delta-radiomics during radiotherapy for monitoring treatment responses in head andÂneck malignancies. Future Science OA, 2020, 6, FSO624.	1.9	14
60	Ultrasound Imaging of Apoptosis: DNA-Damage Effects Visualized. , 2002, 203, 257-277.		13
61	Quantitative Ultrasound Spectroscopic Imaging for Characterization of Disease Extent in Prostate Cancer Patients. Translational Oncology, 2015, 8, 25-34.	3.7	13
62	Prediction of chemotherapy response in breast cancer patients at pre-treatment using second derivative texture of CT images and machine learning. Translational Oncology, 2021, 14, 101183.	3.7	13
63	Assessment of cancer therapy effects using texton-based characterization of quantitative ultrasound parametric images. , 2013, , .		12
64	High-frequency ultrasound detection of cell death: Spectral differentiation of different forms of cell death in vitro. Oncoscience, 2016, 3, 275-287.	2.2	12
65	Water Exchange Rate Constant as a Biomarker of Treatment Efficacy in Patients With Brain Metastases Undergoing Stereotactic Radiosurgery. International Journal of Radiation Oncology Biology Physics, 2017, 98, 47-55.	0.8	12
66	Optimization of microbubble enhancement of hyperthermia for cancer therapy in an in vivo breast tumour model. PLoS ONE, 2020, 15, e0237372.	2.5	12
67	A Feasibility Study of Mepitel Film for the Prevention of Breast Radiation Dermatitis in a Canadian Center. Practical Radiation Oncology, 2021, 11, e36-e45.	2.1	12
68	Quantitative ultrasound imaging of therapy response in bladder cancer in vivo. Oncoscience, 2016, 3, 122-133.	2.2	12
69	Multiparametric monitoring of chemotherapy treatment response in locally advanced breast cancer using quantitative ultrasound and diffuse optical spectroscopy. Oncotarget, 2016, 7, 19762-19780.	1.8	11
70	Quantitative ultrasound radiomics in predicting recurrence for patients with nodeâ€positive headâ€neck squamous cell carcinoma treated with radical radiotherapy. Cancer Medicine, 2021, 10, 2579-2589.	2.8	11
71	Safety of palbociclib concurrent with palliative pelvic radiotherapy: discussion of a case of increased toxicity and brief review of literature. Journal of Medical Radiation Sciences, 2021, 68, 96-102.	1.5	10
72	MRI texture features from tumor core and margin in the prediction of response to neoadjuvant chemotherapy in patients with locally advanced breast cancer. Oncotarget, 2021, 12, 1354-1365.	1.8	10

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73	Imaging Biomarkers for Precision Medicine in Locally Advanced Breast Cancer. Journal of Medical Imaging and Radiation Sciences, 2018, 49, 342-351.	0.3	9
74	Assessment of clinical radiosensitivity in patients with head-neck squamous cell carcinoma from pre-treatment quantitative ultrasound radiomics. Scientific Reports, 2021, 11, 6117.	3.3	9
75	Characterizing intra-tumor regions on quantitative ultrasound parametric images to predict breast cancer response to chemotherapy at pre-treatment. Scientific Reports, 2021, 11, 14865.	3.3	9
76	A priori prediction of response in multicentre locally advanced breast cancer (LABC) patients using quantitative ultrasound and derivative texture methods. Oncotarget, 2021, 12, 81-94.	1.8	8
77	Radiomics in predicting recurrence for patients with locally advanced breast cancer using quantitative ultrasound. Oncotarget, 2021, 12, 2437-2448.	1.8	8
78	Optical coherence tomography spectral analysis for detecting apoptosisin vitroandin vivo. Journal of Biomedical Optics, 2015, 20, 126001.	2.6	7
79	Perfusion imaging of colorectal liver metastases treated with bevacizumab and stereotactic body radiotherapy. Physics and Imaging in Radiation Oncology, 2018, 5, 9-12.	2.9	7
80	High-frequency ultrasound analysis of post-mitotic arrest cell death. Oncoscience, 2016, 3, 109-121.	2.2	7
81	Role of acid sphingomyelinase-induced ceramide generation in response to radiation. Oncotarget, 2019, 10, 6-7.	1.8	7
82	Assessment of tumor response to radiation and vascular targeting therapy in mice using quantitative ultrasound spectroscopy. Medical Physics, 2015, 42, 4965-4973.	3.0	6
83	Ultrasound Elastography of the Prostate Using an Unconstrained Modulus Reconstruction Technique: A Pilot Clinical Study. Translational Oncology, 2017, 10, 744-751.	3.7	6
84	Early Changes in Quantitative Ultrasound Imaging Parameters during Neoadjuvant Chemotherapy to Predict Recurrence in Patients with Locally Advanced Breast Cancer. Cancers, 2022, 14, 1247.	3.7	6
85	In vivo assessment of prostate cancer response using quantitative ultrasound characterization of ultrasonic scattering properties. BMC Cancer, 2021, 21, 991.	2.6	5
86	Predicting survival in patients with glioblastoma using MRI radiomic features extracted from radiation planning volumes. Journal of Neuro-Oncology, 2022, 156, 579-588.	2.9	5
87	Monitoring Quantitative Ultrasound Parameter Changes in a Cell Pellet Model of Cell Starvation. Biophysical Journal, 2017, 112, 2634-2640.	0.5	4
88	Urinary cytokines/chemokines after magnetic resonance-guided high intensity focused ultrasound for palliative treatment of painful bone metastases. Annals of Palliative Medicine, 2017, 6, 36-54.	1.2	4
89	Effect of chromatin structure on quantitative ultrasound parameters. Oncotarget, 2017, 8, 19631-19644.	1.8	4
90	Ultrasound-activated microbubbles as novel enhancers of radiotherapy in leukemia cells in vitro. , 2009, , .		3

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91	A comparison of cellular ultrasonic properties during apoptosis and mitosis using acoustic microscopy. , 2010, , .		3
92	Ultrasound-Guided Focused Ultrasound Treatment for Painful Bone Metastases: A Pilot Study. Ultrasound in Medicine and Biology, 2020, 46, 1455-1463.	1.5	3
93	Eribulin-induced radiation recall dermatitis: a case report and brief review of the literature. Ecancermedicalscience, 2020, 14, 1006.	1.1	3
94	Tumour ellipsification in ultrasound images for treatment prediction in breast cancer. , 2017, , .		1
95	Predicting Radiotherapy Response in Head and Neck Patients Using Quantitative Ultrasound. , 2018, , .		1
96	Ultrasound Imaging of DNA-Damage Effects in Live Cultured Cells and in Brain Tissue. Methods in Molecular Biology, 2017, 1644, 23-40.	0.9	1
97	Probing Ribosomal RNA By Electron Spectroscopic Imaging and Three-Dimensional Reconstruction. Microscopy Today, 1997, 5, 10-11.	0.3	0
98	Ultrasound Biomicroscopy as a Probe of Cellular Ultrastructure. Microscopy and Microanalysis, 2002, 8, 1028-1029.	0.4	0
99	Ultrasound Imaging of Apoptosis: Spectroscopic Detection of DNA-Damage Effects In Vivo. Methods in Molecular Biology, 2017, 1644, 41-60.	0.9	0
100	Radiation recall dermatitis with abemaciclib developing a year after radiotherapy. Current Problems in Cancer Case Reports, 2021, 3, 100054.	0.1	0
101	Three-dimensional ultrasound-based spectroscopic imaging for the detection of prostate cancer.. Journal of Clinical Oncology, 2012, 30, 234-234.	1.6	0
102	Magnetic resonance-guided high intensity focused ultrasound (MR-HIFU) hyperthermia for primary rectal cancer: A virtual feasibility analysis.. Journal of Global Oncology, 2019, 5, 77-77.	0.5	0