David A Gutman

List of Publications by Year
in descending order

99 papers	9,680 citations	41323 49 h-index	42364 92 g-index
106 all docs	106 docs citations	106 times ranked	14421 citing authors

#	Article	IF	Citations
1	Explainable nucleus classification using Decision Tree Approximation of Learned Embeddings. Bioinformatics, 2022, 38, 513-519.	1.8	7
2	Checklist for Evaluation of Image-Based Artificial Intelligence Reports in Dermatology. JAMA Dermatology, 2022, 158, 90.	2.0	71
3	MITI minimum information guidelines for highly multiplexed tissue images. Nature Methods, 2022, 19, 262-267.	9.0	37
4	Validation of artificial intelligence prediction models for skin cancer diagnosis using dermoscopy images: the 2019 International Skin Imaging Collaboration Grand Challenge. The Lancet Digital Health, 2022, 4, e330-e339.	5.9	38
5	NuCLS: A scalable crowdsourcing approach and dataset for nucleus classification and segmentation in breast cancer. GigaScience, 2022, 11, .	3.3	33
6	Artificial intelligence and algorithmic computational pathology: an introduction with renal allograft examples. Histopathology, 2021, 78, 791-804.	1.6	27
7	Integrating Eye Tracking and Speech Recognition Accurately Annotates MR Brain Images for Deep Learning: Proof of Principle. Radiology: Artificial Intelligence, 2021, 3, e200047.	3.0	10
8	Neuromorphological Changes following Selection for Tameness and Aggression in the Russian Farm-Fox experiment. Journal of Neuroscience, 2021, 41, 6144-6156.	1.7	14
9	Image Analysis Pipeline for Renal Allograft Evaluation and Fibrosis Quantification. Kidney International Reports, 2021, 6, 1878-1887.	0.4	10
10	A patient-centric dataset of images and metadata for identifying melanomas using clinical context. Scientific Data, 2021, 8, 34.	2.4	165
11	Interactive Classification of Whole-Slide Imaging Data for Cancer Researchers. Cancer Research, 2021, 81, 1171-1177.	0.4	15
12	Computer algorithms show potential for improving dermatologists' accuracy to diagnose cutaneous melanoma: Results of the International Skin Imaging Collaboration 2017. Journal of the American Academy of Dermatology, 2020, 82, 622-627.	0.6	68
13	Machine-based detection and classification for bone marrow aspirate differential counts: initial development focusing on nonneoplastic cells. Laboratory Investigation, 2020, 100, 98-109.	1.7	74
14	Radiomics Features Predict CIC Mutation Status in Lower Grade Glioma. Frontiers in Oncology, 2020, 10, 937.	1.3	20
15	Validation of machine learning models to detect amyloid pathologies across institutions. Acta Neuropathologica Communications, 2020, 8, 59.	2.4	20
16	TDP-43 cytoplasmic inclusion formation is disrupted in C9orf72-associated amyotrophic lateral sclerosis/frontotemporal lobar degeneration. Brain Communications, 2019, 1, fcz014.	1.5	28
17	Significant Neuroanatomical Variation Among Domestic Dog Breeds. Journal of Neuroscience, 2019, 39, 7748-7758.	1.7	64
18	Fusion In Breast Cancer Histology Classification. , 2019, 2019, 485-493.		13

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19	Phosphoinositide 3-Kinase Signaling Can Modulate MHC Class I and II Expression. Molecular Cancer Research, 2019, 17, 2395-2409.	1.5	36
20	Comparison of the accuracy of human readers versus machine-learning algorithms for pigmented skin lesion classification: an open, web-based, international, diagnostic study. Lancet Oncology, The, 2019, 20, 938-947.	5.1	318
21	Structured crowdsourcing enables convolutional segmentation of histology images. Bioinformatics, 2019, 35, 3461-3467.	1.8	151
22	An Ensemble-based Active Learning for Breast Cancer Classification. , 2019, , .		16
23	Digital imaging applications and informatics in dermatology. Seminars in Cutaneous Medicine and Surgery, 2019, 38, E43-E49.	1.6	0
24	Diagnostic accuracy of whole slide imaging for cutaneous, soft tissue, and melanoma sentinel lymph node biopsies with and without immunohistochemistry. Journal of Cutaneous Pathology, 2018, 45, 597-602.	0.7	4
25	Predicting cancer outcomes from histology and genomics using convolutional networks. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E2970-E2979.	3.3	671
26	Results of the 2016 International Skin Imaging Collaboration International Symposium on Biomedical Imaging challenge: Comparison of the accuracy of computer algorithms to dermatologists for the diagnosis of melanoma from dermoscopic images. Journal of the American Academy of Dermatology, 2018, 78, 270-277.e1.	0.6	236
27	Predicting clinical outcomes from large scale cancer genomic profiles with deep survival models. Scientific Reports, 2017, 7, 11707.	1.6	167
28	5-Aminolevulinic Acid Guided Sampling of Glioblastoma Microenvironments Identifies Pro-Survival Signaling at Infiltrative Margins. Scientific Reports, 2017, 7, 15593.	1.6	25
29	Interactive phenotyping of large-scale histology imaging data with HistomicsML. Scientific Reports, 2017, 7, 14588.	1.6	46
30	The Digital Slide Archive: A Software Platform for Management, Integration, and Analysis of Histology for Cancer Research. Cancer Research, 2017, 77, e75-e78.	0.4	118
31	Comprehensive and Integrated Genomic Characterization of Adult Soft Tissue Sarcomas. Cell, 2017, 171, 950-965.e28.	13.5	738
32	The molecular basis of breast cancer pathological phenotypes. Journal of Pathology, 2017, 241, 375-391.	2.1	86
33	A Symmetry-Based Method to Infer Structural Brain Networks from Probabilistic Tractography Data. Frontiers in Neuroinformatics, 2016, 10, 46.	1.3	5
34	Applicability of digital analysis and imaging technology in neuropathology assessment. Neuropathology, 2016, 36, 270-282.	0.7	17
35	REDLetr: Workflow and tools to support the migration of legacy clinical data capture systems to REDCap. International Journal of Medical Informatics, 2016, 93, 103-110.	1.6	13
36	Multi-scale classification based lesion segmentation for dermoscopic images. , 2016, 2016, 1361-1364.		2

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37	Imaging-genomics reveals driving pathways of MRI derived volumetric tumor phenotype features in Glioblastoma. BMC Cancer, 2016, 16, 611.	1.1	58
38	Gene integrated set profile analysis: a context-based approach for inferring biological endpoints. Nucleic Acids Research, 2016, 44, e69-e69.	6.5	11
39	A combinatorial radiographic phenotype may stratify patient survival and be associated with invasion and proliferation characteristics in glioblastoma. Journal of Neurosurgery, 2016, 124, 1008-1017.	0.9	40
40	Assessing the Effects of Software Platforms on Volumetric Segmentation of Glioblastoma. Journal of Neuroimaging in Psychiatry & Neurology, 2016, 1, 64-72.	0.4	7
41	Fully automatic GBM segmentation in the TCGA-GBM dataset: Prognosis and correlation with VASARI features. Scientific Reports, 2015, 5, 16822.	1.6	78
42	An interactive learning framework for scalable classification of pathology images. , 2015, 2015, 928-935.		9
43	Glioblastoma: Imaging Genomic Mapping Reveals Sex-specific Oncogenic Associations of Cell Death. Radiology, 2015, 275, 215-227.	3.6	64
44	Virtual dissection and comparative connectivity of the superior longitudinal fasciculus in chimpanzees and humans. NeuroImage, 2015, 108, 124-137.	2.1	137
45	Novel genotype-phenotype associations in human cancers enabled by advanced molecular platforms and computational analysis of whole slide images. Laboratory Investigation, 2015, 95, 366-376.	1.7	54
46	Addition of MR imaging features and genetic biomarkers strengthens glioblastoma survival prediction in TCGA patients. Journal of Neuroradiology, 2015, 42, 212-221.	0.6	109
47	Organization of intrinsic functional brain connectivity predicts decisions to reciprocate social behavior. Behavioural Brain Research, 2015, 292, 478-483.	1.2	27
48	Somatic mutations associated with MRI-derived volumetric features in glioblastoma. Neuroradiology, 2015, 57, 1227-1237.	1.1	79
49	A comparative analysis of mouse and human medial geniculate nucleus connectivity: A DTI and anterograde tracing study. NeuroImage, 2015, 105, 53-66.	2.1	32
50	Acquisition of Paleolithic toolmaking abilities involves structural remodeling to inferior frontoparietal regions. Brain Structure and Function, 2015, 220, 2315-2331.	1.2	94
51	Abstract 415: Differential expression of therapeutic targets across tumor micro-environments and at infiltrative margins in glioblastoma. , 2015, , .		1
52	Microembolism Induces Anhedonia but No Detectable Changes in White Matter Integrity in Aged Rats. PLoS ONE, 2014, 9, e96624.	1.1	2
53	Web based tools for visualizing imaging data and development of XNATView, a zero footprint image viewer. Frontiers in Neuroinformatics, 2014, 8, 53.	1.3	8
54	NCI Workshop Report: Clinical and Computational Requirements for Correlating Imaging Phenotypes with Genomics Signatures. Translational Oncology, 2014, 7, 556-569.	1.7	69

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55	Social Subordination Stress and Serotonin Transporter Polymorphisms: Associations With Brain White Matter Tract Integrity and Behavior in Juvenile Female Macaques. Cerebral Cortex, 2014, 24, 3334-3349.	1.6	33
56	PACAP receptor gene polymorphism impacts fear responses in the amygdala and hippocampus. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3158-3163.	3.3	122
57	Outcome Prediction in Patients with Glioblastoma by Using Imaging, Clinical, and Genomic Biomarkers: Focus on the Nonenhancing Component of the Tumor. Radiology, 2014, 272, 484-493.	3.6	196
58	Imaging genomic mapping of an invasive MRI phenotype predicts patient outcome and metabolic dysfunction: a TCGA glioma phenotype research group project. BMC Medical Genomics, 2014, 7, 30.	0.7	60
59	Mapping of the mouse olfactory system with manganese-enhanced magnetic resonance imaging and diffusion tensor imaging. Brain Structure and Function, 2013, 218, 527-537.	1.2	19
60	Differences in Neural Activation for Object-Directed Grasping in Chimpanzees and Humans. Journal of Neuroscience, 2013, 33, 14117-14134.	1.7	88
61	Tumor-Infiltrating Lymphocytes in Glioblastoma Are Associated with Specific Genomic Alterations and Related to Transcriptional Class. Clinical Cancer Research, 2013, 19, 4951-4960.	3.2	182
62	Genomic Mapping and Survival Prediction in Glioblastoma: Molecular Subclassification Strengthened by Hemodynamic Imaging Biomarkers. Radiology, 2013, 267, 212-220.	3.6	130
63	Reduced neural activation during an inhibition task is associated with impaired fear inhibition in a traumatized civilian sample. Cortex, 2013, 49, 1884-1891.	1.1	114
64	Process Versus Product in Social Learning: Comparative Diffusion Tensor Imaging of Neural Systems for Action Executionâ€“Observation Matching in Macaques, Chimpanzees, and Humans. Cerebral Cortex, 2013, 23, 1014-1024.	1.6	142
65	Cancer Digital Slide Archive: an informatics resource to support integrated in silico analysis of TCGA pathology data. Journal of the American Medical Informatics Association: JAMIA, 2013, 20, 1091-1098.	2.2	149
66	MR Imaging Predictors of Molecular Profile and Survival: Multi-institutional Study of the TCGA Glioblastoma Data Set. Radiology, 2013, 267, 560-569.	3.6	362
67	FKBP5 and Attention Bias for Threat. JAMA Psychiatry, 2013, 70, 392.	6.0	118
68	White Matter Integrity in Highly Traumatized Adults With and Without Post-Traumatic Stress Disorder. Neuropsychopharmacology, 2012, 37, 2740-2746.	2.8	111
69	Integrated morphologic analysis for the identification and characterization of disease subtypes. Journal of the American Medical Informatics Association: JAMIA, 2012, 19, 317-323.	2.2	82
70	Subcallosal Cingulate Deep Brain Stimulation for Treatment-Resistant Unipolar and Bipolar Depression. Archives of General Psychiatry, 2012, 69, 150.	13.8	511
71	The Tumor Microenvironment Strongly Impacts Master Transcriptional Regulators and Gene Expression Class of Glioblastoma. American Journal of Pathology, 2012, 180, 2108-2119.	1.9	220
72	Neural correlates of attention bias to threat in post-traumatic stress disorder. Biological Psychology, 2012, 90, 134-142.	1.1	127

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73	A DTI tractography analysis of infralimbic and prelimbic connectivity in the mouse using high-throughput MRI. NeuroImage, 2012, 63, 800-811.	2.1	35
74	Digital Pathology: Data-Intensive Frontier in Medical Imaging. Proceedings of the IEEE, 2012, 100, 991-1003.	16.4	39
75	Abstract LB-101: Quantitative imaging of protein expression using multiplex quantum dot immunohistochemistry. , 2012, , .		0
76	Integrative, Multimodal Analysis of Glioblastoma Using TCGA Molecular Data, Pathology Images, and Clinical Outcomes. IEEE Transactions on Biomedical Engineering, 2011, 58, 3469-3474.	2.5	57
77	Persistent anxiolytic affects after chronic administration of the CRF1 receptor antagonist R121919 in rats. Neuropharmacology, 2011, 60, 1135-1141.	2.0	16
78	An Integrative Approach for In Silico Glioma Research. IEEE Transactions on Biomedical Engineering, 2010, 57, 2617-2621.	2.5	53
79	Abstract 113: The TCGA proneural subtype predicts improved clinical outcome for low-grade oligodendrogliomas. , 2010, , .		1
80	The Proneural Molecular Signature Is Enriched in Oligodendrogliomas and Predicts Improved Survival among Diffuse Gliomas. PLoS ONE, 2010, 5, e12548.	1.1	125
81	High-Performance Systems for in Silico Microscopy Imaging Studies. Lecture Notes in Computer Science, 2010, , 3-18.	1.0	2
82	A Tractography Analysis of Two Deep Brain Stimulation White Matter Targets for Depression. Biological Psychiatry, 2009, 65, 276-282.	0.7	203
83	Behavioral effects of the CRF1 receptor antagonist R121919 in rats selectively bred for high and low activity in the swim test. Psychoneuroendocrinology, 2008, 33, 1093-1101.	1.3	14
84	The CRF1 receptor antagonist, R121919, attenuates the severity of precipitated morphine withdrawal. European Journal of Pharmacology, 2007, 571, 17-24.	1.7	33
85	The CRF1 receptor antagonist R121919 attenuates the neuroendocrine and behavioral effects of precipitated lorazepam withdrawal. Psychopharmacology, 2007, 192, 385-396.	1.5	25
86	Serotonin and norepinephrine transporter binding profile of SSRIs. Essential Psychopharmacology, 2006, 7, 35-41.	0.9	10
87	Persistent central nervous system effects of an adverse early environment: clinical and preclinical studies. Physiology and Behavior, 2003, 79, 471-478.	1.0	111
88	The Corticotropin-Releasing Factor1 Receptor Antagonist R121919 Attenuates the Behavioral and Endocrine Responses to Stress. Journal of Pharmacology and Experimental Therapeutics, 2003, 304, 874-880.	1.3	99
89	Cellular and Behavioral Effects of D2 Dopamine Receptor Hydrophobic Eigenmode-Targeted Peptide Ligands. Neuropsychopharmacology, 2003, 28, S98-S107.	2.8	8
90	A Neural Basis for Social Cooperation. Neuron, 2002, 35, 395-405.	3.8	1,256

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91	NMDA-induced phosphorylation and regulation of mGluR5. Pharmacology Biochemistry and Behavior, 2002, 73, 299-306.	1.3	55
92	Neurobiology of early life stress: Rodent studies. Seminars in Clinical Neuropsychiatry, 2002, 7, 89-95.	1.9	122
93	Neural correlates of maternal separation in rhesus monkeys. Biological Psychiatry, 2001, 49, 146-157.	0.7	104
94	Demonstration of two distributions of vesicle radius in the dopamine neuron of Planorbis corneus from electrochemical data. Journal of Neuroscience Methods, 1999, 88, 153-161.	1.3	25
95	Dopamine levels of two classes of vesicles are differentially depleted by amphetamine. Brain Research, 1998, 788, 294-301.	1.1	38
96	Voltammetric and Pharmacological Characterization of Dopamine Release from Single Exocytotic Events at Rat Pheochromocytoma (PC12) Cells. Analytical Chemistry, 1998, 70, 3123-3130.	3.2	170
97	Ultrathin Slab Gel Separations of DNA Using a Single Capillary Sample Introduction System. Analytical Chemistry, 1997, 69, 2292-2298.	3.2	30
98	Electrochemical monitoring of bursting exocytotic events from the giant dopamine neuron ofPlanorbis corneus. Brain Research, 1996, 733, 119-124.	1.1	18
99	Neuroendocrinological Research in Psychiatry. , 0, , 91-124.		0