

Stefan Fröhling

List of Publications by Year in descending order

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Version: 2024-02-01

103
papers

5,147
citations

109321

35
h-index

102487

66
g-index

112
all docs

112
docs citations

112
times ranked

8463
citing authors

#	ARTICLE	IF	CITATIONS
1	BCAT1 restricts $\hat{I}\pm$ KG levels in AML stem cells leading to IDHmut-like DNA hypermethylation. Nature, 2017, 551, 384-388.	27.8	261
2	Sarcoma classification by DNA methylation profiling. Nature Communications, 2021, 12, 498.	12.8	237
3	The CDK inhibitor CR8 acts as a molecular glue degrader that depletes cyclin K. Nature, 2020, 585, 293-297.	27.8	219
4	Integrative genomic and transcriptomic analysis of leiomyosarcoma. Nature Communications, 2018, 9, 144.	12.8	197
5	Superior skin cancer classification by the combination of human and artificial intelligence. European Journal of Cancer, 2019, 120, 114-121.	2.8	197
6	<i>NRG1</i> Fusions in <i>KRAS</i> Wild-Type Pancreatic Cancer. Cancer Discovery, 2018, 8, 1087-1095.	9.4	189
7	Deep learning outperformed 11 pathologists in the classification of histopathological melanoma images. European Journal of Cancer, 2019, 118, 91-96.	2.8	188
8	Pathologist-level classification of histopathological melanoma images with deep neural networks. European Journal of Cancer, 2019, 115, 79-83.	2.8	156
9	Small-molecule-induced polymerization triggers degradation of BCL6. Nature, 2020, 588, 164-168.	27.8	143
10	Requirement for CDK6 in MLL-rearranged acute myeloid leukemia. Blood, 2014, 124, 13-23.	1.4	139
11	Systematic outperformance of 112 dermatologists in multiclass skin cancer image classification by convolutional neural networks. European Journal of Cancer, 2019, 119, 57-65.	2.8	134
12	Precision oncology based on omics data: The NCT Heidelberg experience. International Journal of Cancer, 2017, 141, 877-886.	5.1	133
13	Size matters: Dissecting key parameters for panel-based tumor mutational burden analysis. International Journal of Cancer, 2019, 144, 848-858.	5.1	131
14	Integrating next-generation sequencing into clinical oncology: strategies, promises and pitfalls. ESMO Open, 2016, 1, e000094.	4.5	126
15	Metabolic Rewiring by Oncogenic BRAF V600E Links Ketogenesis Pathway to BRAF-MEK1 Signaling. Molecular Cell, 2015, 59, 345-358.	9.7	125
16	Comprehensive Genomic and Transcriptomic Analysis for Guiding Therapeutic Decisions in Patients with Rare Cancers. Cancer Discovery, 2021, 11, 2780-2795.	9.4	125
17	Skin cancer classification via convolutional neural networks: systematic review of studies involving human experts. European Journal of Cancer, 2021, 156, 202-216.	2.8	115
18	Comparative analysis of KRAS codon 12, 13, 18, 61 and 117 mutations using human MCF10A isogenic cell lines. Scientific Reports, 2015, 5, 8535.	3.3	111

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19	Palbociclib treatment of FLT3-ITD+ AML cells uncovers a kinase-dependent transcriptional regulation of FLT3 and PIM1 by CDK6. <i>Blood</i> , 2016, 127, 2890-2902.	1.4	96
20	Dissecting intratumour heterogeneity of nodal B-cell lymphomas at the transcriptional, genetic and drug-response levels. <i>Nature Cell Biology</i> , 2020, 22, 896-906.	10.3	93
21	MBD4 guards against methylation damage and germ line deficiency predisposes to clonal hematopoiesis and early-onset AML. <i>Blood</i> , 2018, 132, 1526-1534.	1.4	90
22	Recurrent CDKN1B (p27) mutations in hairy cell leukemia. <i>Blood</i> , 2015, 126, 1005-1008.	1.4	88
23	Harmonization and Standardization of Panel-Based Tumor Mutational Burden Measurement: Real-World Results and Recommendations of the Quality in Pathology Study. <i>Journal of Thoracic Oncology</i> , 2020, 15, 1177-1189.	1.1	81
24	Artificial Intelligence in Skin Cancer Diagnostics: The Patients' Perspective. <i>Frontiers in Medicine</i> , 2020, 7, 233.	2.6	79
25	Gastrointestinal cancer classification and prognostication from histology using deep learning: Systematic review. <i>European Journal of Cancer</i> , 2021, 155, 200-215.	2.8	70
26	Spatial and Temporal Heterogeneity of Panel-Based Tumor Mutational Burden in Pulmonary Adenocarcinoma: Separating Biology From Technical Artifacts. <i>Journal of Thoracic Oncology</i> , 2019, 14, 1935-1947.	1.1	69
27	Stakeholders' perspectives on biobank-based genomic research: systematic review of the literature. <i>European Journal of Human Genetics</i> , 2015, 23, 1607-1614.	2.8	61
28	Integration of genomics and histology revises diagnosis and enables effective therapy of refractory cancer of unknown primary with <i>PDL1</i> amplification. <i>Journal of Physical Education and Sports Management</i> , 2016, 2, a001180.	1.2	57
29	Combining CNN-based histologic whole slide image analysis and patient data to improve skin cancer classification. <i>European Journal of Cancer</i> , 2021, 149, 94-101.	2.8	57
30	TelomereHunter – in silico estimation of telomere content and composition from cancer genomes. <i>BMC Bioinformatics</i> , 2019, 20, 272.	2.6	56
31	Support systems to guide clinical decision-making in precision oncology: The Cancer Core Europe Molecular Tumor Board Portal. <i>Nature Medicine</i> , 2020, 26, 992-994.	30.7	56
32	HSP90 Supports Tumor Growth and Angiogenesis through PRKD2 Protein Stabilization. <i>Cancer Research</i> , 2014, 74, 7125-7136.	0.9	52
33	PD-L1 (CD274) copy number gain, expression, and immune cell infiltration as candidate predictors for response to immune checkpoint inhibitors in soft-tissue sarcoma. <i>Oncolmmunology</i> , 2017, 6, e1279777.	4.6	50
34	Artificial Intelligence and Its Effect on Dermatologists' Accuracy in Dermoscopic Melanoma Image Classification: Web-Based Survey Study. <i>Journal of Medical Internet Research</i> , 2020, 22, e18091.	4.3	45
35	Explainable artificial intelligence in skin cancer recognition: A systematic review. <i>European Journal of Cancer</i> , 2022, 167, 54-69.	2.8	42
36	FUS-DDIT3 Fusion Protein-Driven IGF-IR Signaling is a Therapeutic Target in Myxoid Liposarcoma. <i>Clinical Cancer Research</i> , 2017, 23, 6227-6238.	7.0	40

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37	Integration of deep learning-based image analysis and genomic data in cancer pathology: A systematic review. <i>European Journal of Cancer</i> , 2022, 160, 80-91.	2.8	37
38	Succession of transiently active tumor-initiating cell clones in human pancreatic cancer xenografts. <i>EMBO Molecular Medicine</i> , 2017, 9, 918-932.	6.9	36
39	From somatic variants towards precision oncology: Evidence-driven reporting of treatment options in molecular tumor boards. <i>Genome Medicine</i> , 2018, 10, 18.	8.2	36
40	Response to olaparib in a <i>PALB2</i> germline mutated prostate cancer and genetic events associated with resistance. <i>Journal of Physical Education and Sports Management</i> , 2019, 5, a003657.	1.2	36
41	Hidden Variables in Deep Learning Digital Pathology and Their Potential to Cause Batch Effects: Prediction Model Study. <i>Journal of Medical Internet Research</i> , 2021, 23, e23436.	4.3	36
42	Deep learning approach to predict sentinel lymph node status directly from routine histology of primary melanoma tumours. <i>European Journal of Cancer</i> , 2021, 154, 227-234.	2.8	36
43	Integrating Patient Data Into Skin Cancer Classification Using Convolutional Neural Networks: Systematic Review. <i>Journal of Medical Internet Research</i> , 2021, 23, e20708.	4.3	35
44	A benchmark for neural network robustness in skin cancer classification. <i>European Journal of Cancer</i> , 2021, 155, 191-199.	2.8	34
45	MCL-1 gains occur with high frequency in lung adenocarcinoma and can be targeted therapeutically. <i>Nature Communications</i> , 2020, 11, 4527.	12.8	32
46	Robustness of convolutional neural networks in recognition of pigmented skin lesions. <i>European Journal of Cancer</i> , 2021, 145, 81-91.	2.8	32
47	Deep learning can predict lymph node status directly from histology in colorectal cancer. <i>European Journal of Cancer</i> , 2021, 157, 464-473.	2.8	32
48	Genetic subclone architecture of tumor clone-initiating cells in colorectal cancer. <i>Journal of Experimental Medicine</i> , 2017, 214, 2073-2088.	8.5	30
49	Targeting Fibroblast Growth Factor Receptor 1 for Treatment of Soft-Tissue Sarcoma. <i>Clinical Cancer Research</i> , 2017, 23, 962-973.	7.0	29
50	The RUNX1 database (RUNX1db): establishment of an expert curated RUNX1 registry and genomics database as a public resource for familial platelet disorder with myeloid malignancy. <i>Haematologica</i> , 2021, 106, 3004-3007.	3.5	29
51	Requirement for YAP1 signaling in myxoid liposarcoma. <i>EMBO Molecular Medicine</i> , 2019, 11, .	6.9	25
52	Overdiagnosis of melanoma – causes, consequences and solutions. <i>JDDG - Journal of the German Society of Dermatology</i> , 2020, 18, 1236-1243.	0.8	23
53	Conceptual framework for precision cancer medicine in Germany: Consensus statement of the Deutsche Krebshilfe working group –Molecular Diagnostics and Therapy™. <i>European Journal of Cancer</i> , 2020, 135, 1-7.	2.8	23
54	Targetable ERBB2 mutations identified in neurofibroma/schwannoma hybrid nerve sheath tumors. <i>Journal of Clinical Investigation</i> , 2020, 130, 2488-2495.	8.2	23

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55	Community-driven development of a modified progression-free survival ratio for precision oncology. <i>ESMO Open</i> , 2019, 4, e000583.	4.5	22
56	Trailblazing precision medicine in Europe: A joint view by Genomic Medicine Sweden and the Centers for Personalized Medicine, ZPM, in Germany. <i>Seminars in Cancer Biology</i> , 2022, 84, 242-254.	9.6	22
57	Genetic profiling of melanoma in routine diagnostics: assay performance and molecular characteristics in a consecutive series of 274 cases. <i>Pathology</i> , 2018, 50, 703-710.	0.6	21
58	Albociclib can overcome mutations in cyclin dependent kinase 6 that break hydrogen bonds between the drug and the protein. <i>Protein Science</i> , 2017, 26, 870-879.	7.6	20
59	Protein Kinase C Epsilon Is a Key Regulator of Mitochondrial Redox Homeostasis in Acute Myeloid Leukemia. <i>Clinical Cancer Research</i> , 2018, 24, 608-618.	7.0	20
60	Cancer surveillance and distress among adult pathogenic TP53 germline variant carriers in Germany: A multicenter feasibility and acceptance survey. <i>Cancer</i> , 2020, 126, 4032-4041.	4.1	20
61	CATCH: A Prospective Precision Oncology Trial in Metastatic Breast Cancer. <i>JCO Precision Oncology</i> , 2021, 5, 676-686.	3.0	20
62	Identification and characterization of a BRAF fusion oncoprotein with retained autoinhibitory domains. <i>Oncogene</i> , 2020, 39, 814-832.	5.9	19
63	Identification of BCL-XL as highly active survival factor and promising therapeutic target in colorectal cancer. <i>Cell Death and Disease</i> , 2020, 11, 875.	6.3	17
64	Intimal sarcomas and undifferentiated cardiac sarcomas carry mutually exclusive MDM2, MDM4, and CDK6 amplifications and share a common DNA methylation signature. <i>Modern Pathology</i> , 2021, 34, 2122-2129.	5.5	17
65	Integrating proteomics into precision oncology. <i>International Journal of Cancer</i> , 2021, 148, 1438-1451.	5.1	15
66	Assigning evidence to actionability: An introduction to variant interpretation in precision cancer medicine. <i>Genes Chromosomes and Cancer</i> , 2022, 61, 303-313.	2.8	15
67	EGFR and PI3K Pathway Activities Might Guide Drug Repurposing in HPV-Negative Head and Neck Cancers. <i>Frontiers in Oncology</i> , 2021, 11, 678966.	2.8	14
68	Stk33 is required for spermatid differentiation and male fertility in mice. <i>Developmental Biology</i> , 2018, 433, 84-93.	2.0	13
69	Exploiting rare driver mutations for precision cancer medicine. <i>Current Opinion in Genetics and Development</i> , 2019, 54, 1-6.	3.3	13
70	Successful BRAF/MEK inhibition in a patient with BRAF ^{V600E} -mutated extrapancreatic acinar cell carcinoma. <i>Journal of Physical Education and Sports Management</i> , 2020, 6, a005553.	1.2	13
71	Application of precision medicine in clinical routine in haematology – Challenges and opportunities. <i>Journal of Internal Medicine</i> , 2022, 292, 243-261.	6.0	12
72	Genomics of Immunotherapy-Associated Hyperprogressors – Letter. <i>Clinical Cancer Research</i> , 2017, 23, 6374-6375.	7.0	11

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73	Prospective identification of resistance mechanisms to HSP90 inhibition in KRAS mutant cancer cells. <i>Oncotarget</i> , 2017, 8, 7678-7690.	1.8	11
74	EORTC SPECTRA-AYA: A unique molecular profiling platform for adolescents and young adults with cancer in Europe. <i>International Journal of Cancer</i> , 2020, 147, 1180-1184.	5.1	11
75	Metastatic adult pancreatoblastoma: Multimodal treatment and molecular characterization of a very rare disease. <i>Pancreatology</i> , 2020, 20, 425-432.	1.1	11
76	Preoperative therapy with pazopanib in high-risk soft tissue sarcoma: a phase II window-of-opportunity study by the German Interdisciplinary Sarcoma Group (GISG-04/NOPASS). <i>BMJ Open</i> , 2016, 6, e009558.	1.9	9
77	Cullin 5 is a novel candidate tumor suppressor in renal cell carcinoma involved in the maintenance of genome stability. <i>Oncogenesis</i> , 2019, 8, 4.	4.9	9
78	Knowledge bases and software support for variant interpretation in precision oncology. <i>Briefings in Bioinformatics</i> , 2021, 22, .	6.5	9
79	Significance of intraoperative radiation therapy and high cumulative radiation doses in retroperitoneal soft tissue sarcoma. <i>European Journal of Surgical Oncology</i> , 2020, 46, 905-913.	1.0	8
80	Requirement for LIM kinases in acute myeloid leukemia. <i>Leukemia</i> , 2020, 34, 3173-3185.	7.2	8
81	Targeting rare and non-canonical driver variants in NSCLC – An uncharted clinical field. <i>Lung Cancer</i> , 2021, 154, 131-141.	2.0	8
82	Outcome after surgical resection of multiple recurrent retroperitoneal soft tissue sarcoma. <i>European Journal of Surgical Oncology</i> , 2021, 47, 2189-2200.	1.0	8
83	Detection of Structural Variants in Circulating Cell-Free DNA from Sarcoma Patients Using Next Generation Sequencing. <i>Cancers</i> , 2020, 12, 3627.	3.7	7
84	DNA Methylation Profiling Discriminates between Malignant Pleural Mesothelioma and Neoplastic or Reactive Histologic Mimics. <i>Journal of Molecular Diagnostics</i> , 2021, 23, 834-846.	2.8	7
85	Digital Pathology Scoring of Immunohistochemical Staining Reliably Identifies Prognostic Markers and Anatomical Associations in a Large Cohort of Oral Cancers. <i>Frontiers in Oncology</i> , 2021, 11, 712944.	2.8	7
86	PRKD2: A two-pronged kinase crucial for the tumor-supporting activity of HSP90. <i>Molecular and Cellular Oncology</i> , 2015, 2, e981444.	0.7	6
87	Deconvolution of sarcoma methylomes reveals varying degrees of immune cell infiltrates with association to genomic aberrations. <i>Journal of Translational Medicine</i> , 2021, 19, 204.	4.4	5
88	BTBCL6 dimers as building blocks for reversible drug-induced protein oligomerization. <i>Cell Reports Methods</i> , 2022, 2, 100193.	2.9	5
89	Fulminant response to combined checkpoint inhibition with ipilimumab plus nivolumab after failure of nivolumab monotherapy in metastatic melanoma. <i>European Journal of Cancer</i> , 2017, 83, 142-145.	2.8	4
90	Molecular characterization of hepatic epithelioid hemangioendothelioma reveals alterations in various genes involved in DNA repair, epigenetic regulation, signaling pathways, and cell cycle control. <i>Genes Chromosomes and Cancer</i> , 2020, 59, 106-110.	2.8	4

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91	Germline <i>SDHB</i> inactivating mutation in gastric spindle cell sarcoma. <i>Genes Chromosomes and Cancer</i> , 2020, 59, 601-608.	2.8	4
92	Ruxolitinib is effective in the treatment of a patient with refractory T-ALL. <i>EJHaem</i> , 2021, 2, 139-142.	1.0	4
93	ALT-FISH quantifies alternative lengthening of telomeres activity by imaging of single-stranded repeats. <i>Nucleic Acids Research</i> , 2022, 50, e61-e61.	14.5	4
94	Perioperative changes in the plasma metabolome of patients receiving general anesthesia for pancreatic cancer surgery. <i>Oncotarget</i> , 2021, 12, 996-1010.	1.8	3
95	Evolution of a FLT3-TKD mutated subclone at meningeal relapse in acute promyelocytic leukemia. <i>Journal of Physical Education and Sports Management</i> , 2016, 2, a001123.	1.2	2
96	Process Evaluation of a Medical Student-Delivered Smoking Prevention Program for Secondary Schools: Protocol for the Education Against Tobacco Cluster Randomized Trial. <i>JMIR Research Protocols</i> , 2019, 8, e13508.	1.0	2
97	Recurrent Germline Variant in <i>RAD21</i> Predisposes Children to Lymphoblastic Leukemia or Lymphoma. <i>International Journal of Molecular Sciences</i> , 2022, 23, 5174.	4.1	2
98	<i>MGMT</i> inactivation as a new biomarker in patients with advanced biliary tract cancers. <i>Molecular Oncology</i> , 2022, 16, 2733-2746.	4.6	2
99	Haematopoietic stem cell transplantation in adult soft-tissue sarcoma: an analysis from the European Society for Blood and Marrow Transplantation. <i>ESMO Open</i> , 2020, 5, e000860.	4.5	1
100	Cerebral metastases of a dermatofibrosarcoma protuberans. <i>JDDG - Journal of the German Society of Dermatology</i> , 2020, 18, 143-145.	0.8	0
101	Recurrent Germline Variant in the Cohesin Complex Gene <i>RAD21</i> Predisposes Children to Lymphoblastic Leukemia and Lymphoma. <i>Blood</i> , 2021, 138, 3358-3358.	1.4	0
102	Interdisciplinary team science to understand and intercept rare cancers. <i>Molecular and Cellular Oncology</i> , 2021, 8, 1997331.	0.7	0
103	TBIO-04. Comprehensive analysis of mutational signatures in pediatric cancers. <i>Neuro-Oncology</i> , 2022, 24, i183-i183.	1.2	0