Markus Rehm

List of Publications by Year
in descending order

97 papers	12,541 citations	172457 29 h-index	45317 90 g-index
100 all docs	100 docs citations	100 times ranked	23328 citing authors

#	Article	IF	Citations
1	Proteasome inhibition triggers the formation of TRAIL receptor 2 platforms for caspase-8 activation that accumulate in the cytosol. Cell Death and Differentiation, 2022, 29, 147-155.	11.2	7
2	An atlas of inter- and intra-tumor heterogeneity of apoptosis competency in colorectal cancer tissue at single-cell resolution. Cell Death and Differentiation, 2022, 29, 806-817.	11.2	15
3	ER stress-induced cell death proceeds independently of the TRAIL-R2 signaling axis in pancreatic Î² cells. Cell Death Discovery, 2022, 8, 34.	4.7	5
4	cFLIP downregulation is an early event required for endoplasmic reticulum stress-induced apoptosis in tumor cells. Cell Death and Disease, 2022, 13, 111.	6.3	11
5	Mitochondrial genome variations, mitochondrialâ€nuclear compatibility, and their association with metabolic diseases. Obesity, 2022, , .	3.0	2
6	Abstract 3704: The C-terminal transmembrane domain of BAX is essential for BAX auto-inhibition. Cancer Research, 2022, 82, 3704-3704.	0.9	0
7	Glioblastoma, from disease understanding towards optimal cell-based in vitro models. Cellular Oncology (Dordrecht), 2022, 45, 527-541.	4.4	8
8	Linking hyperosmotic stress and apoptotic sensitivity. FEBS Journal, 2021, 288, 1800-1803.	4.7	3
9	Development of a protein signature to enable clinical positioning of IAP inhibitors in colorectal cancer. FEBS Journal, 2021, 288, 5374-5388.	4.7	5
10	Transcriptional CDK Inhibitors CYC065 and THZ1 Induce Apoptosis in Glioma Stem Cells Derived from Recurrent GBM. Cells, 2021, 10, 1182.	4.1	5
11	Marizomib sensitizes primary glioma cells to apoptosis induced by a latest-generation TRAIL receptor agonist. Cell Death and Disease, 2021, 12, 647.	6.3	12
12	Transcriptional CDK inhibitors, CYC065 and THZ1 promote Bim-dependent apoptosis in primary and recurrent GBM through cell cycle arrest and Mcl-1 downregulation. Cell Death and Disease, 2021, 12, 763.	6.3	8
13	P13.11 Transcriptional CDK inhibitors, CYC065 and THZ1 promote apoptosis in preclinical models of primary and recurrent GBM tumour cells and glioma stem cells. Neuro-Oncology, 2021, 23, ii34-ii35.	1.2	0
14	Cell cycle progression and transmitotic apoptosis resistance promote escape from extrinsic apoptosis. Journal of Cell Science, 2021, 134, .	2.0	6
15	Low-Level Endothelial TRAIL-Receptor Expression Obstructs the CNS-Delivery of Angiopep-2 Functionalised TRAIL-Receptor Agonists for the Treatment of Glioblastoma. Molecules, 2021, 26, 7582.	3.8	4
16	Response of patients with melanoma to immune checkpoint blockadeÂâ€“ insights gleaned from analysis of a new mathematical mechanistic model. Journal of Theoretical Biology, 2020, 485, 110033.	1.7	17
17	New hints towards a precision medicine strategy for IDH wild-type glioblastoma. Annals of Oncology, 2020, 31, 1679-1692.	1.2	32
18	The FLAME-accelerated signalling tool (FaST) for facile parallelisation of flexible agent-based models of cell signalling. Npj Systems Biology and Applications, 2020, 6, 10.	3.0	3

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19	RALB GTPase: a critical regulator of DR5 expression and TRAIL sensitivity in KRAS mutant colorectal cancer. Cell Death and Disease, 2020, 11, 930.	6.3	12
20	Sample-based modeling reveals bidirectional interplay between cell cycle progression and extrinsic apoptosis. PLoS Computational Biology, 2020, 16, e1007812.	3.2	6
21	Convergence of pathway analysis and pattern recognition predicts sensitization to latest generation TRAIL therapeutics by IAP antagonism. Cell Death and Differentiation, 2020, 27, 2417-2432.	11.2	14
22	Reconstructing temporal and spatial dynamics from single-cell pseudotime using prior knowledge of real scale cell densities. Scientific Reports, 2020, 10, 3619.	3.3	5
23	Low expression of pro-apoptotic proteins Bax, Bak and Smac indicates prolonged progression-free survival in chemotherapy-treated metastatic melanoma. Cell Death and Disease, 2020, 11, 124.	6.3	23
24	The apoptosome molecular timer synergises with XIAP to suppress apoptosis execution and contributes to prognosticating survival in colorectal cancer. Cell Death and Differentiation, 2020, 27, 2828-2842.	11.2	9
25	TRAIL receptor signaling: From the basics of canonical signal transduction toward its entanglement with ER stress and the unfolded protein response. International Review of Cell and Molecular Biology, 2020, 351, 57-99.	3.2	22
26	Stress-induced TRAILR2 expression overcomes TRAIL resistance in cancer cell spheroids. Cell Death and Differentiation, 2020, 27, 3037-3052.	11.2	17
27	Endoplasmic reticulum stress signalling â€“ from basic mechanisms to clinical applications. FEBS Journal, 2019, 286, 241-278.	4.7	568
28	A Machine Learning Platform to Optimize the Translation of Personalized Network Models to the Clinic. JCO Clinical Cancer Informatics, 2019, 3, 1-17.	2.1	4
29	TAK1 suppresses RIPK1-dependent cell death and is associated with disease progression in melanoma. Cell Death and Differentiation, 2019, 26, 2520-2534.	11.2	22
30	Continuumâ€mechanical modelling of apoptosis. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900310.	0.2	2
31	Individual-based modeling explains effects of TRAIL treatment in cancer cells.. IFAC-PapersOnLine, 2019, 52, 207-212.	0.9	0
32	Implementing Patient-Derived Xenografts to Assess the Effectiveness of Cyclin-Dependent Kinase Inhibitors in Glioblastoma. Cancers, 2019, 11, 2005.	3.7	10
33	Phosphoprotein patterns predict trametinib responsiveness and optimal trametinib sensitisation strategies in melanoma. Cell Death and Differentiation, 2019, 26, 1365-1378.	11.2	10
34	Simulating and predicting cellular and in vivo responses of colon cancer to combined treatment with chemotherapy and IAP antagonist Birinapant/TL32711. Cell Death and Differentiation, 2018, 25, 1952-1966.	11.2	12
35	Whither systems medicine?. Experimental and Molecular Medicine, 2018, 50, e453-e453.	7.7	49
36	The BAX/BAK-like protein BOK is a prognostic marker in colorectal cancer. Cell Death and Disease, 2018, 9, 125.	6.3	23

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37	Molecular mechanisms of cell death: recommendations of the Nomenclature Committee on Cell Death 2018. Cell Death and Differentiation, 2018, 25, 486-541.	11.2	4,036
38	Bax retrotranslocation potentiates Bcl-xLâ€™s antiapoptotic activity and is essential for switch-like transitions between MOMP competency and resistance. Cell Death and Disease, 2018, 9, 430.	6.3	14
39	Post-treatment de-phosphorylation of p53 correlates with dasatinib responsiveness in malignant melanoma. BMC Cell Biology, 2018, 19, 28.	3.0	5
40	Death patterns resulting from cell cycle-independent cell death.. IFAC-PapersOnLine, 2018, 51, 90-93.	0.9	1
41	Modelling of lungâ€metastases apoptosis within brain tissue. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800323.	0.2	1
42	Sensitization of glioblastoma cells to TRAIL-induced apoptosis by IAP- and Bcl-2 antagonism. Cell Death and Disease, 2018, 9, 1112.	6.3	13
43	Counting on Death â€“ Quantitative aspects of Bclâ€2 family regulation. FEBS Journal, 2018, 285, 4124-4138.	4.7	13
44	Bcl-2-Ome â€“ a database and interactive web service for dissecting the Bcl-2 interactome. Cell Death and Differentiation, 2017, 24, 192-192.	11.2	4
45	A Stepwise Integrated Approach to Personalized Risk Predictions in Stage III Colorectal Cancer. Clinical Cancer Research, 2017, 23, 1200-1212.	7.0	21
46	Data-driven simulation of metastatic processes within brain tissue. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 221-222.	0.2	1
47	Examining the In Vitro Efficacy of the IAP Antagonist Birinapant as a Single Agent or in Combination With Dacarbazine to Induce Melanoma Cell Death. Oncology Research, 2017, 25, 1489-1494.	1.5	6
48	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). Autophagy, 2016, 12, 1-222.	9.1	4,701
49	Patient-derived glioblastoma cells show significant heterogeneity in treatment responses to the inhibitor-of-apoptosis-protein antagonist birinapant. British Journal of Cancer, 2016, 114, 188-198.	6.4	16
50	An Analysis of the Truncated Bid- and ROS-dependent Spatial Propagation of Mitochondrial Permeabilization Waves during Apoptosis. Journal of Biological Chemistry, 2016, 291, 4603-4613.	3.4	8
51	Predicting the cell death responsiveness and sensitization of glioma cells to TRAIL and temozolomide. Oncotarget, 2016, 7, 61295-61311.	1.8	15
52	FRET-Based Measurement of Apoptotic Caspase Activities by High-Throughput Screening Flow Cytometry. Methods in Pharmacology and Toxicology, 2016, , 109-130.	0.2	0
53	Caspase modelling to predict personalised risk in stage III colorectal cancer (CRC) patients.. Journal of Clinical Oncology, 2016, 34, 11592-11592.	1.6	0
54	Measuring Caspase Activity by FÃ¶rster Resonance Energy Transfer. Cold Spring Harbor Protocols, 2015, 2015, pdb.prot082560.	0.3	10

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55	Imaging-Based Methods for Assessing Caspase Activity in Single Cells. Cold Spring Harbor Protocols, 2015, 2015, pdb.top070342.	0.3	7
56	Limited Mitochondrial Permeabilization Causes DNA Damage and Genomic Instability in the Absence of Cell Death. Molecular Cell, 2015, 57, 860-872.	9.7	341
57	Modulation of apoptosis sensitivity through the interplay with autophagic and proteasomal degradation pathways. Cell Death and Disease, 2014, 5, e1011-e1011.	6.3	43
58	From computational modelling of the intrinsic apoptosis pathway to a systems-based analysis of chemotherapy resistance: achievements, perspectives and challenges in systems medicine. Cell Death and Disease, 2014, 5, e1258-e1258.	6.3	30
59	Key regulators of apoptosis execution as biomarker candidates in melanoma. Molecular and Cellular Oncology, 2014, 1, e964037.	0.7	13
60	A Systems Biology Analysis of Apoptosome Formation and Apoptosis Execution Supports Allosteric Procaspase-9 Activation. Journal of Biological Chemistry, 2014, 289, 26277-26289.	3.4	27
61	Systems analysis of apoptosis protein expression allows the case-specific prediction of cell death responsiveness of melanoma cells. Cell Death and Differentiation, 2013, 20, 1521-1531.	11.2	35
62	Determining the contributions of caspase-2, caspase-8 and effector caspases to intracellular VDVADase activities during apoptosis initiation and execution. Biochimica Et Biophysica Acta - Molecular Cell Research, 2013, 1833, 2279-2292.	4.1	18
63	Systems modelling methodology for the analysis of apoptosis signal transduction and cell death decisions. Methods, 2013, 61, 165-173.	3.8	13
64	Activation of executioner caspases is a predictor of progression-free survival in glioblastoma patients: a systems medicine approach. Cell Death and Disease, 2013, 4, e629-e629.	6.3	43
65	Systems Analysis of Cancer Cell Heterogeneity in Caspase-dependent Apoptosis Subsequent to Mitochondrial Outer Membrane Permeabilization. Journal of Biological Chemistry, 2012, 287, 41546-41559.	3.4	29
66	Clinical application of a systems model of apoptosis execution for the prediction of colorectal cancer therapy responses and personalisation of therapy. Gut, 2012, 61, 725-733.	12.1	48
67	TRAIL Signaling and Synergy Mechanisms Used in TRAIL-Based Combination Therapies. Molecular Cancer Therapeutics, 2012, 11, 3-13.	4.1	126
68	Proteasome Inhibition Can Impair Caspase-8 Activation upon Submaximal Stimulation of Apoptotic Tumor Necrosis Factor-related Apoptosis Inducing Ligand (TRAIL) Signaling. Journal of Biological Chemistry, 2012, 287, 14402-14411.	3.4	33
69	The central role of initiator caspase-9 in apoptosis signal transduction and the regulation of its activation and activity on the apoptosome. Experimental Cell Research, 2012, 318, 1213-1220.	2.6	211
70	Glucose metabolism determines resistance of cancer cells to bioenergetic crisis after cytochromeâ€• <i>c</i> release. Molecular Systems Biology, 2011, 7, 470.	7.2	49
71	Proteasome inhibition can induce an autophagy-dependent apical activation of caspase-8. Cell Death and Differentiation, 2011, 18, 1584-1597.	11.2	120
72	Apoptosis repressor with caspase recruitment domain, a multifunctional modulator of cell death. Journal of Cellular and Molecular Medicine, 2011, 15, 1044-1053.	3.6	36

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73	Dimerization of Smac is crucial for its mitochondrial retention by XIAP subsequent to mitochondrial outer membrane permeabilization. Biochimica Et Biophysica Acta - Molecular Cell Research, 2011, 1813, 819-826.	4.1	8
74	The Molecular Machinery Regulating Apoptosis Signal Transduction and its Implication in Human Physiology and Pathophysiologies. Current Molecular Medicine, 2011, 11, 31-47.	1.3	42
75	Diffusion is capable of translating anisotropic apoptosis initiation into a homogeneous execution of cell death. BMC Systems Biology, 2010, 4, 9.	3.0	20
76	Single-cell quantification of Bax activation and mathematical modelling suggest pore formation on minimal mitochondrial Bax accumulation. Cell Death and Differentiation, 2010, 17, 278-290.	11.2	95
77	Activity of protein kinase CK2 uncouples Bid cleavage from caspase-8 activation. Journal of Cell Science, 2010, 123, 1401-1406.	2.0	28
78	XIAP impairs Smac release from the mitochondria during apoptosis. Cell Death and Disease, 2010, 1, e49-e49.	6.3	51
79	The Caspase-8 Dimerization/Dissociation Balance Is a Highly Potent Regulator of Caspase-8, -3, -6 Signaling*. Journal of Biological Chemistry, 2010, 285, 33209-33218.	3.4	29
80	ALISSA: an automated live-cell imaging system for signal transduction analyses. BioTechniques, 2009, 47, 1033-1040.	1.8	9
81	Bid and Calpains Cooperate to Trigger Oxaliplatin-Induced Apoptosis of Cervical Carcinoma HeLa Cells. Molecular Pharmacology, 2009, 76, 998-1010.	2.3	18
82	Early loss of mammalian target of rapamycin complex 1 (mTORC1) signalling and reduction in cell size during dominant-negative suppression of hepatic nuclear factor 1-Î± (HNF1A) function in INS-1 insulinoma cells. Diabetologia, 2009, 52, 136-144.	6.3	11
83	Dynamics of outer mitochondrial membrane permeabilization during apoptosis. Cell Death and Differentiation, 2009, 16, 613-623.	11.2	125
84	TOXI-SIMâ€"A simulation tool for the analysis of mitochondrial and plasma membrane potentials. Journal of Neuroscience Methods, 2009, 176, 270-275.	2.5	8
85	Systems Biology Approaches to the Study of Apoptosis. , 2009, , 283-297.		8
86	Role of Smac in cephalostatin-induced cell death. Cell Death and Differentiation, 2008, 15, 1930-1940.	11.2	20
87	Intracellular signaling dynamics during apoptosis execution in the presence or absence of X-linked-inhibitor-of-apoptosis-protein. Biochimica Et Biophysica Acta - Molecular Cell Research, 2008, 1783, 1903-1913.	4.1	29
88	Real Time Analysis of Tumor Necrosis Factor-related Apoptosis-inducing Ligand/Cycloheximide-induced Caspase Activities during Apoptosis Initiation. Journal of Biological Chemistry, 2008, 283, 21676-21685.	3.4	56
89	Bid Participates in Genotoxic Drug-Induced Apoptosis of HeLa Cells and Is Essential for Death Receptor Ligands' Apoptotic and Synergistic Effects. PLoS ONE, 2008, 3, e2844.	2.5	24
90	APOPTO-CELL a simulation tool and interactive database for analyzing cellular susceptibility to apoptosis. Bioinformatics, 2007, 23, 648-650.	4.1	30

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91	Full length Bid is sufficient to induce apoptosis of cultured rat hippocampal neurons. BMC Cell Biology, 2007, 8, 7.	3.0	38
92	Systems analysis of effector caspase activation and its control by X-linked inhibitor of apoptosis protein. EMBO Journal, 2006, 25, 4338-4349.	7.8	203
93	Real Time Single Cell Analysis of Bid Cleavage and Bid Translocation during Caspase-dependent and Neuronal Caspase-independent Apoptosis. Journal of Biological Chemistry, 2006, 281, 5837-5844.	3.4	71
94	Mitochondrial Membrane Permeabilization and Superoxide Production during Apoptosis. Journal of Biological Chemistry, 2003, 278, 12645-12649.	3.4	58
95	Real-time single cell analysis of Smac/DIABLO release during apoptosis. Journal of Cell Biology, 2003, 162, 1031-1043.	5.2	143
96	Outer mitochondrial membrane permeabilization during apoptosis triggers caspase-independent mitochondrial and caspase-dependent plasma membrane potential depolarization: a single-cell analysis. Journal of Cell Science, 2003, 116, 525-536.	2.0	102
97	Single-cell Fluorescence Resonance Energy Transfer Analysis Demonstrates That Caspase Activation during Apoptosis Is a Rapid Process. Journal of Biological Chemistry, 2002, 277, 24506-24514.	3.4	276