Stephan Beck

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/138809/publications.pdf

Version: 2024-02-01

17405 9073 48,691 145 63 144 citations h-index g-index papers 159 159 159 53456 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Initial sequencing and analysis of the human genome. Nature, 2001, 409, 860-921.	13.7	21,074
2	Initial sequencing and comparative analysis of the mouse genome. Nature, 2002, 420, 520-562.	13.7	6,319
3	A beta-mixture quantile normalization method for correcting probe design bias in Illumina Infinium 450 k DNA methylation data. Bioinformatics, 2013, 29, 189-196.	1.8	1,295
4	DNA methylation profiling of human chromosomes 6, 20 and 22. Nature Genetics, 2006, 38, 1378-1385.	9.4	1,212
5	Epigenome-wide association studies for common human diseases. Nature Reviews Genetics, 2011, 12, 529-541.	7.7	1,110
6	Gene map of the extended human MHC. Nature Reviews Genetics, 2004, 5, 889-899.	7.7	949
7	ChAMP: 450k Chip Analysis Methylation Pipeline. Bioinformatics, 2014, 30, 428-430.	1.8	757
8	Age-dependent DNA methylation of genes that are suppressed in stem cells is a hallmark of cancer. Genome Research, 2010, 20, 440-446.	2.4	740
9	A high-resolution HLA and SNP haplotype map for disease association studies in the extended human MHC. Nature Genetics, 2006, 38, 1166-1172.	9.4	686
10	Neoantigen-directed immune escape in lung cancer evolution. Nature, 2019, 567, 479-485.	13.7	639
11	A Bayesian deconvolution strategy for immunoprecipitation-based DNA methylome analysis. Nature Biotechnology, 2008, 26, 779-785.	9.4	619
12	ChAMP: updated methylation analysis pipeline for Illumina BeadChips. Bioinformatics, 2017, 33, 3982-3984.	1.8	572
13	The chicken B locus is a minimal essential major histocompatibility complex. Nature, 1999, 401, 923-925.	13.7	568
14	DNA methylation aging clocks: challenges and recommendations. Genome Biology, 2019, 20, 249.	3.8	552
15	The International Human Epigenome Consortium: A Blueprint for Scientific Collaboration and Discovery. Cell, 2016, 167, 1145-1149.	13.5	404
16	An integrated resource for genome-wide identification and analysis of human tissue-specific differentially methylated regions (tDMRs). Genome Research, 2008, 18, 1518-1529.	2.4	350
17	Downregulation of Death-Associated Protein Kinase 1 (DAPK1) in Chronic Lymphocytic Leukemia. Cell, 2007, 129, 879-890.	13.5	338
18	BLUEPRINT to decode the epigenetic signature written in blood. Nature Biotechnology, 2012, 30, 224-226.	9.4	323

#	Article	IF	CITATIONS
19	DNA Methylation Profiling of the Human Major Histocompatibility Complex: A Pilot Study for the Human Epigenome Project. PLoS Biology, 2004, 2, e405.	2.6	305
20	Genetic and environmental influences interact with age and sex in shaping the human methylome. Nature Communications, 2016, 7, 11115.	5.8	299
21	A comparison of reference-based algorithms for correcting cell-type heterogeneity in Epigenome-Wide Association Studies. BMC Bioinformatics, 2017, 18, 105.	1.2	297
22	Identification of Type 1 Diabetes–Associated DNA Methylation Variable Positions That Precede Disease Diagnosis. PLoS Genetics, 2011, 7, e1002300.	1.5	295
23	An Epigenetic Signature in Peripheral Blood Predicts Active Ovarian Cancer. PLoS ONE, 2009, 4, e8274.	1.1	291
24	The DNA Methylome of Human Peripheral Blood Mononuclear Cells. PLoS Biology, 2010, 8, e1000533.	2.6	290
25	Variation analysis and gene annotation of eight MHC haplotypes: The MHC Haplotype Project. Immunogenetics, 2008, 60, 1-18.	1.2	286
26	Methylome analysis using MeDIP-seq with low DNA concentrations. Nature Protocols, 2012, 7, 617-636.	5. 5	270
27	Quantitative comparison of DNA methylation assays for biomarker development and clinical applications. Nature Biotechnology, 2016, 34, 726-737.	9.4	270
28	Genome-wide DNA methylation analysis for diabetic nephropathy in type 1 diabetes mellitus. BMC Medical Genomics, 2010, 3, 33.	0.7	261
29	Age-associated epigenetic drift: implications, and a case of epigenetic thrift?. Human Molecular Genetics, 2013, 22, R7-R15.	1.4	261
30	Complete MHC Haplotype Sequencing for Common Disease Gene Mapping. Genome Research, 2004, 14, 1176-1187.	2.4	260
31	Molecular dissection of colorectal cancer in pre-clinical models identifies biomarkers predicting sensitivity to EGFR inhibitors. Nature Communications, 2017, 8, 14262.	5.8	260
32	The methylome: approaches for global DNA methylation profiling. Trends in Genetics, 2008, 24, 231-237.	2.9	258
33	A High-Resolution Linkage-Disequilibrium Map of the Human Major Histocompatibility Complex and First Generation of Tag Single-Nucleotide Polymorphisms. American Journal of Human Genetics, 2005, 76, 634-646.	2.6	237
34	From profiles to function in epigenomics. Nature Reviews Genetics, 2017, 18, 51-66.	7.7	233
35	Correlation of an epigenetic mitotic clock with cancer risk. Genome Biology, 2016, 17, 205.	3.8	197
36	Deciphering the genomic, epigenomic, and transcriptomic landscapes of pre-invasive lung cancer lesions. Nature Medicine, 2019, 25, 517-525.	15.2	178

#	Article	IF	Citations
37	Identification of differentially methylated cell types in epigenome-wide association studies. Nature Methods, 2018, 15, 1059-1066.	9.0	166
38	Glioblastomas acquire myeloid-affiliated transcriptional programs via epigenetic immunoediting to elicit immune evasion. Cell, 2021, 184, 2454-2470.e26.	13.5	165
39	Genetic Analysis of Completely Sequenced Disease-Associated MHC Haplotypes Identifies Shuffling of Segments in Recent Human History. PLoS Genetics, 2006, 2, e9.	1.5	156
40	A second major histocompatibility complex susceptibility locus for multiple sclerosis. Annals of Neurology, 2007, 61, 228-236.	2.8	156
41	From genome to epigenome. Human Molecular Genetics, 2005, 14, R3-R10.	1.4	154
42	Increased DNA methylation variability in type 1 diabetes across three immune effector cell types. Nature Communications, 2016, 7, 13555.	5.8	142
43	A histone acetylome-wide association study of Alzheimer's disease identifies disease-associated H3K27ac differences in the entorhinal cortex. Nature Neuroscience, 2018, 21, 1618-1627.	7.1	138
44	An Integrative Multi-scale Analysis of the Dynamic DNA Methylation Landscape in Aging. PLoS Genetics, 2015, 11, e1004996.	1.5	132
45	Widespread resetting of DNA methylation in glioblastoma-initiating cells suppresses malignant cellular behavior in a lineage-dependent manner. Genes and Development, 2013, 27, 654-669.	2.7	121
46	A novel cell-type deconvolution algorithm reveals substantial contamination by immune cells in saliva, buccal and cervix. Epigenomics, 2018, 10, 925-940.	1.0	116
47	Using high-density DNA methylation arrays to profile copy number alterations. Genome Biology, 2014, 15, R30.	13.9	113
48	Probe Lasso: A novel method to rope in differentially methylated regions with 450K DNA methylation data. Methods, 2015, 72, 21-28.	1.9	109
49	Analysis pipelines and packages for Infinium HumanMethylation450 BeadChip (450k) data. Methods, 2015, 72, 3-8.	1.9	108
50	Making multi-omics data accessible to researchers. Scientific Data, 2019, 6, 251.	2.4	107
51	Integration of human pancreatic islet genomic data refines regulatory mechanisms at Type 2 Diabetes susceptibility loci. ELife, 2018, 7, .	2.8	103
52	eFORGE: A Tool for Identifying Cell Type-Specific Signal in Epigenomic Data. Cell Reports, 2016, 17, 2137-2150.	2.9	102
53	Genome-wide analysis of differential transcriptional and epigenetic variability across human immune cell types. Genome Biology, 2017, 18, 18.	3.8	97
54	Comparative methylome analysis of benign and malignant peripheral nerve sheath tumors. Genome Research, 2011, 21, 515-524.	2.4	94

#	Article	lF	CITATIONS
55	Glioblastoma Stem Cells Respond to Differentiation Cues but Fail to Undergo Commitment and Terminal Cell-Cycle Arrest. Stem Cell Reports, 2015, 5, 829-842.	2.3	93
56	Genome-wide DNA methylation analysis of archival formalin-fixed paraffin-embedded tissue using the Illumina Infinium HumanMethylation27 BeadChip. Methods, 2010, 52, 248-254.	1.9	92
57	Taking the measure of the methylome. Nature Biotechnology, 2010, 28, 1026-1028.	9.4	88
58	eFORGE v2.0: updated analysis of cell type-specific signal in epigenomic data. Bioinformatics, 2019, 35, 4767-4769.	1.8	84
59	oxBS-450K: A method for analysing hydroxymethylation using 450K BeadChips. Methods, 2015, 72, 9-15.	1.9	83
60	UroMarkâ€"a urinary biomarker assay for the detection of bladder cancer. Clinical Epigenetics, 2017, 9, 8.	1.8	81
61	Tracking the Epigenetic Clock Across the Human Life Course: A Meta-analysis of Longitudinal Cohort Data. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2019, 74, 57-61.	1.7	81
62	Epigenome-Wide Association Study of Incident Type 2 Diabetes in a British Population: EPIC-Norfolk Study. Diabetes, 2019, 68, 2315-2326.	0.3	77
63	Characterization of the Chicken C-Type Lectin-Like Receptors B-NK and B-lec Suggests That the NK Complex and the MHC Share a Common Ancestral Region. Journal of Immunology, 2005, 174, 3475-3483.	0.4	76
64	Epigenetic and Transcriptional Variability Shape Phenotypic Plasticity. BioEssays, 2018, 40, 1700148.	1.2	71
65	Increased DNA methylation variability in rheumatoid arthritis-discordant monozygotic twins. Genome Medicine, 2018, 10, 64.	3.6	71
66	A Novel System of Polymorphic and Diverse NK Cell Receptors in Primates. PLoS Genetics, 2009, 5, e1000688.	1.5	64
67	Genome-wide methylation profiling identifies novel methylated genes in neuroblastoma tumors. Epigenetics, 2016, 11, 74-84.	1.3	63
68	Analysis of the Polycomb-related IncRNAs HOTAIR and ANRIL in bladder cancer. Clinical Epigenetics, 2015, 7, 109.	1.8	60
69	Large-scale sequence comparisons reveal unusually high levels of variation in the HLA-DQB1 locus in the class II region of the human MHC. Journal of Molecular Biology, 1998, 282, 71-97.	2.0	59
70	Correcting for cell-type heterogeneity in epigenome-wide association studies: revisiting previous analyses. Nature Methods, 2017, 14, 216-217.	9.0	59
71	Advances in epigenome-wide association studies for common diseases. Trends in Molecular Medicine, 2014, 20, 541-543.	3.5	58
72	EPISCORE: cell type deconvolution of bulk tissue DNA methylomes from single-cell RNA-Seq data. Genome Biology, 2020, 21, 221.	3.8	58

#	Article	IF	CITATIONS
73	Validation of the MethylationEPIC BeadChip for fresh-frozen and formalin-fixed paraffin-embedded tumours. Clinical Epigenetics, 2017, 9, 33.	1.8	57
74	Epigenetic reprogramming of fallopian tube fimbriae in BRCA mutation carriers defines early ovarian cancer evolution. Nature Communications, 2016, 7, 11620.	5.8	56
75	Selfish mutations dysregulating RAS-MAPK signaling are pervasive in aged human testes. Genome Research, 2018, 28, 1779-1790.	2.4	56
76	Accurate Measurement of 5-Methylcytosine and 5-Hydroxymethylcytosine in Human Cerebellum DNA by Oxidative Bisulfite on an Array (OxBS-Array). PLoS ONE, 2015, 10, e0118202.	1.1	54
77	The Dynamics of DNA Methylation Covariation Patterns in Carcinogenesis. PLoS Computational Biology, 2014, 10, e1003709.	1.5	52
78	Epigenetic dysregulation and poorer prognosis in DAXX-deficient pancreatic neuroendocrine tumours. Endocrine-Related Cancer, 2015, 22, L13-L18.	1.6	50
79	G proteinâ€coupled receptor GPR55 promotes colorectal cancer and has opposing effects to cannabinoid receptor 1. International Journal of Cancer, 2018, 142, 121-132.	2.3	49
80	Functional interpretation of nonâ€coding sequence variation: Concepts and challenges. BioEssays, 2014, 36, 191-199.	1.2	47
81	The good, the bad and the ugly: Epigenetic mechanisms in glioblastoma. Molecular Aspects of Medicine, 2013, 34, 849-862.	2.7	46
82	A pan-tissue DNA methylation atlas enables in silico decomposition of human tissue methylomes at cell-type resolution. Nature Methods, 2022, 19, 296-306.	9.0	46
83	DNA methylation analysis of murine hematopoietic side population cells during aging. Epigenetics, 2013, 8, 1114-1122.	1.3	41
84	Tissue-independent and tissue-specific patterns of DNA methylation alteration in cancer. Epigenetics and Chromatin, 2016, 9, 10.	1.8	40
85	EpiDISH web server: Epigenetic Dissection of Intra-Sample-Heterogeneity with online GUI. Bioinformatics, 2020, 36, 1950-1951.	1.8	40
86	A Polycomb-mir200 loop regulates clinical outcome in bladder cancer. Oncotarget, 2015, 6, 42258-42275.	0.8	40
87	Resources for methylome analysis suitable for gene knockout studies of potential epigenome modifiers. GigaScience, $2012,1,3$.	3.3	39
88	Comparative methylome analysis identifies new tumour subtypes and biomarkers for transformation of nephrogenic rests into Wilms tumour. Genome Medicine, 2015, 7, 11.	3.6	39
89	Non-CG DNA methylation is a biomarker for assessing endodermal differentiation capacity in pluripotent stem cells. Nature Communications, 2016, 7, 10458.	5.8	38
90	Cancer Epigenome. Advances in Genetics, 2010, 70, 247-276.	0.8	37

#	Article	IF	Citations
91	AutoMeDIP-seq: A high-throughput, whole genome, DNA methylation assay. Methods, 2010, 52, 223-231.	1.9	37
92	Molecular Signatures of Regression of the Canine Transmissible Venereal Tumor. Cancer Cell, 2018, 33, 620-633.e6.	7.7	37
93	A comparison of tagging methods and their tagging space. Human Molecular Genetics, 2005, 14, 2757-2767.	1.4	36
94	Epigenome data release: a participant-centered approach to privacy protection. Genome Biology, 2015, 16, 142.	3.8	34
95	Information recovery from low coverage whole-genome bisulfite sequencing. Nature Communications, 2016, 7, 11306.	5.8	33
96	DNA methylome analysis reveals distinct epigenetic patterns of ascending aortic dissection and bicuspid aortic valve. Cardiovascular Research, 2017, 113, 692-704.	1.8	33
97	The role of epigenetics in psychological resilience. Lancet Psychiatry, the, 2021, 8, 620-629.	3.7	33
98	Identification of a single killer immunoglobulin-like receptor (KIR) gene in the porcine leukocyte receptor complex on chromosome 6q. Immunogenetics, 2006, 58, 481-486.	1.2	32
99	Assessment of RainDrop BS-seq as a method for large-scale, targeted bisulfite sequencing. Epigenetics, 2014, 9, 678-684.	1.3	28
100	Epigenome-wide association studies for cancer biomarker discovery in circulating cell-free DNA: technical advances and challenges. Current Opinion in Genetics and Development, 2017, 42, 48-55.	1.5	28
101	Points-to-consider on the return of results in epigenetic research. Genome Medicine, 2019, 11, 31.	3.6	27
102	The multi-omic landscape of transcription factor inactivation in cancer. Genome Medicine, 2016, 8, 89.	3.6	26
103	Saturation analysis for whole-genome bisulfite sequencing data. Nature Biotechnology, 2016, 34, 691-693.	9.4	26
104	Genome-Wide Screen for Differential DNA Methylation Associated with Neural Cell Differentiation in Mouse. PLoS ONE, 2011, 6, e26002.	1.1	26
105	<scp>DNA</scp> methylationâ€based profiling of bone and soft tissue tumours: a validation study of the â€~ <scp>DKFZ</scp> Sarcoma Classifier'. Journal of Pathology: Clinical Research, 2021, 7, 350-360.	1.3	25
106	Chemotherapy induces canalization of cell state in childhood B-cell precursor acute lymphoblastic leukemia. Nature Cancer, 2021, 2, 835-852.	5.7	25
107	Neuronal methylome reveals CREB-associated neuro-axonal impairment in multiple sclerosis. Clinical Epigenetics, 2019, 11, 86.	1.8	24
108	Overexpression of the Heterochromatinization Factor BAHD1 in HEK293 Cells Differentially Reshapes the DNA Methylome on Autosomes and X Chromosome. Frontiers in Genetics, 2015, 6, 339.	1.1	23

#	Article	IF	CITATIONS
109	A Blueprint for an International Cancer Epigenome Consortium. A Report from the AACR Cancer Epigenome Task Force. Cancer Research, 2012, 72, 6319-6324.	0.4	22
110	Assessment of patient-derived tumour xenografts (PDXs) as a discovery tool for cancer epigenomics. Genome Medicine, 2014 , 6 , 116 .	3.6	22
111	Human-specific epigenetic variation in the immunological Leukotriene B4 Receptor (LTB4R/BLT1) implicated in common inflammatory diseases. Genome Medicine, 2014, 6, 19.	3.6	21
112	Global hypomethylation in myeloma is associated with poor prognosis. British Journal of Haematology, 2016, 172, 473-475.	1.2	21
113	Brave new epigenomes: the dawn of epigenetic engineering. Genome Medicine, 2015, 7, 59.	3.6	20
114	Epigenome-wide association study of kidney function identifies trans-ethnic and ethnic-specific loci. Genome Medicine, 2021, 13, 74.	3.6	20
115	Evolutionary vignettes of natural killer cell receptors. Current Opinion in Immunology, 2007, 19, 553-560.	2.4	19
116	The Personal Genome Project-UK, an open access resource of human multi-omics data. Scientific Data, 2019, 6, 257.	2.4	19
117	Alopecia areata susceptibility variant in MHC region impacts expressions of genes contributing to hair keratinization and is involved in hair loss. EBioMedicine, 2020, 57, 102810.	2.7	19
118	The epigenetic clock: a molecular crystal ball for human aging?. Aging, 2019, 11, 833-835.	1.4	19
119	Integrative analysis of 3604 GWAS reveals multiple novel cell type-specific regulatory associations. Genome Biology, 2022, 23, 13.	3.8	19
120	Benefits and barriers in the design of harmonized access agreements for international data sharing. Scientific Data, 2019, 6, 297.	2.4	18
121	DNA Methylome Alterations Are Associated with Airway Macrophage Differentiation and Phenotype during Lung Fibrosis. American Journal of Respiratory and Critical Care Medicine, 2021, 204, 954-966.	2.5	17
122	CORALINA: a universal method for the generation of gRNA libraries for CRISPR-based screening. BMC Genomics, 2016, 17, 917.	1.2	16
123	C2c: turning cancer into chronic disease. Genome Medicine, 2014, 6, 38.	3.6	15
124	Differentiation therapy for glioblastoma – too many obstacles?. Molecular and Cellular Oncology, 2016, 3, e1124174.	0.3	15
125	Quantification of tumour evolution and heterogeneity via Bayesian epiallele detection. BMC Bioinformatics, 2017, 18, 354.	1.2	15
126	Molecular signature of response to preoperative radiotherapy in locally advanced breast cancer. Radiation Oncology, 2018, 13, 193.	1.2	15

#	Article	lF	CITATIONS
127	The missing diversity in human epigenomic studies. Nature Genetics, 2022, 54, 737-739.	9.4	14
128	Sequencing and comparative analysis of the gorilla MHC genomic sequence. Database: the Journal of Biological Databases and Curation, 2013, 2013, bat011.	1.4	13
129	3-methylcytosine in cancer: an underappreciated methyl lesion?. Epigenomics, 2016, 8, 451-454.	1.0	13
130	Diversity in EWAS: current state, challenges, and solutions. Genome Medicine, 2022, 14, .	3 . 6	13
131	Epigenetic Noise Fuels Cancer Evolution. Cancer Cell, 2014, 26, 775-776.	7.7	12
132	Novel epigenetic network biomarkers for early detection of esophageal cancer. Clinical Epigenetics, 2022, 14, 23.	1.8	11
133	"Epigenome-wide methylation profile of chronic kidney disease-derived arterial DNA uncovers novel pathways in disease-associated cardiovascular pathology.― Epigenetics, 2021, 16, 718-728.	1.3	10
134	Osteosarcoma: Novel prognostic biomarkers using circulating and cell-free tumour DNA. European Journal of Cancer, 2022, 168, 1-11.	1.3	8
135	A donor-specific epigenetic classifier for acute graft-versus-host disease severity in hematopoietic stem cell transplantation. Genome Medicine, 2015, 7, 128.	3.6	7
136	The Relationship between Epigenetic Age and Myocardial Infarction/Acute Coronary Syndrome in a Population-Based Nested Case-Control Study. Journal of Personalized Medicine, 2022, 12, 110.	1.1	6
137	Comparison and imputation-aided integration of five commercial platforms for targeted DNA methylome analysis. Nature Biotechnology, 2022, 40, 1478-1487.	9.4	5
138	GenomeChronicler: The Personal Genome Project UK Genomic Report Generator Pipeline. Frontiers in Genetics, 2020, 11, 518644.	1.1	4
139	RXRB Is an MHC-Encoded Susceptibility Gene Associated with Anti-Topoisomerase IÂAntibody-Positive Systemic Sclerosis. Journal of Investigative Dermatology, 2017, 137, 1878-1886.	0.3	3
140	Treasure trove for cancer medicine. Nature Materials, 2017, 16, 1056-1057.	13.3	3
141	Getting up close and personal with UK genomics and beyond. Genome Medicine, 2018, 10, 38.	3.6	3
142	A–Z of methylome analysis. Methods, 2010, 52, 201-202.	1.9	2
143	Nano-MeDIP-seq Methylome Analysis Using Low DNA Concentrations. Methods in Molecular Biology, 2015, 1589, 115-138.	0.4	1
144	Editorial: Personal Genomes: Accessing, Sharing, and Interpretation. Frontiers in Genetics, 2021, 12, 687584.	1.1	1

ARTICLE IF CITATIONS

145 Epigenetics of Inflammatory Bowel Disease., 2013,, 171-187.