Bart GhesquiÃ¨re

List of Publications by Year
in descending order

102 papers	11,415 citations	41344 49 h-index	30922 102 g-index
107 all docs	107 docs citations	107 times ranked	18944 citing authors

#	Article	IF	Citations
1	Role of PFKFB3-Driven Glycolysis in Vessel Sprouting. Cell, 2013, 154, 651-663.	28.9	1,117
2	Tumour hypoxia causes DNA hypermethylation by reducing TET activity. Nature, 2016, 537, 63-68.	27.8	521
3	A roadmap for interpreting 13 C metabolite labeling patterns from cells. Current Opinion in Biotechnology, 2015, 34, 189-201.	6.6	513
4	Fatty acid carbon is essential for dNTP synthesis in endothelial cells. Nature, 2015, 520, 192-197.	27.8	466
5	Inhibition of the Glycolytic Activator PFKFB3 in Endothelium Induces Tumor Vessel Normalization, Impairs Metastasis, and Improves Chemotherapy. Cancer Cell, 2016, 30, 968-985.	16.8	464
6	Partial and Transient Reduction of Glycolysis by PFKFB3 Blockade Reduces Pathological Angiogenesis. Cell Metabolism, 2014, 19, 37-48.	16.2	429
7	Consensus guidelines for the use and interpretation of angiogenesis assays. Angiogenesis, 2018, 21, 425-532.	7.2	429
8	Metabolism of stromal and immune cells in health and disease. Nature, 2014, 511, 167-176.	27.8	377
9	Tumor Vessel Normalization by Chloroquine Independent of Autophagy. Cancer Cell, 2014, 26, 190-206.	16.8	358
10	Macrophage Metabolism Controls Tumor Blood Vessel Morphogenesis and Metastasis. Cell Metabolism, 2016, 24, 701-715.	16.2	352
11	The miR-17-92 MicroRNA Cluster Regulates Multiple Components of the TGF-Î² Pathway in Neuroblastoma. Molecular Cell, 2010, 40, 762-773.	9.7	279
12	Metabolites released from apoptotic cells act as tissue messengers. Nature, 2020, 580, 130-135.	27.8	266
13	Histamine Receptor H1â€“Mediated Sensitization of TRPV1 Mediates Visceral Hypersensitivity and Symptoms in Patients With Irritable Bowel Syndrome. Gastroenterology, 2016, 150, 875-887.e9.	1.3	263
14	Pharmacologic or Genetic Targeting of Glutamine Synthetase Skews Macrophages toward an M1-like Phenotype and Inhibits Tumor Metastasis. Cell Reports, 2017, 20, 1654-1666.	6.4	258
15	A Fatty Acid Oxidation-Dependent Metabolic Shift Regulates Adult Neural Stem Cell Activity. Cell Reports, 2017, 20, 2144-2155.	6.4	247
16	The role of fatty acid Î²-oxidation in lymphangiogenesis. Nature, 2017, 542, 49-54.	27.8	240
17	Nitric oxide orchestrates metabolic rewiring in M1 macrophages by targeting aconitase 2 and pyruvate dehydrogenase. Nature Communications, 2020, 11, 698.	12.8	232
18	Role of glutamine and interlinked asparagine metabolism in vessel formation. EMBO Journal, 2017, 36, 2334-2352.	7.8	195

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19	ATP13A2 deficiency disrupts lysosomal polyamine export. Nature, 2020, 578, 419-424.	27.8	193
20	Codon-specific translation reprogramming promotes resistance to targeted therapy. Nature, 2018, 558, 605-609.	27.8	177
21	Quiescent Endothelial Cells Upregulate Fatty Acid Î²-Oxidation for Vasculoprotection via Redox Homeostasis. Cell Metabolism, 2018, 28, 881-894.e13.	16.2	174
22	HIF-1Î± metabolically controls collagen synthesis and modification in chondrocytes. Nature, 2019, 565, 511-515.	27.8	169
23	Impairment of Angiogenesis by Fatty Acid Synthase Inhibition Involves mTOR Malonylation. Cell Metabolism, 2018, 28, 866-880.e15.	16.2	154
24	HIF-1Î± Promotes Glutamine-Mediated Redox Homeostasis and Glycogen-Dependent Bioenergetics to Support Postimplantation Bone Cell Survival. Cell Metabolism, 2016, 23, 265-279.	16.2	142
25	Role of glutamine synthetase in angiogenesis beyond glutamine synthesis. Nature, 2018, 561, 63-69.	27.8	136
26	Serine Synthesis via PHGDH Is Essential for Heme Production in Endothelial Cells. Cell Metabolism, 2018, 28, 573-587.e13.	16.2	127
27	The human platelet proteome mapped by peptide-centric proteomics: A functional protein profile. Proteomics, 2005, 5, 3193-3204.	2.2	126
28	Stable isotopic labeling in proteomics. Proteomics, 2008, 8, 4873-4885.	2.2	125
29	Critical Assessment of Small Molecule Identification 2016: automated methods. Journal of Cheminformatics, 2017, 9, 22.	6.1	122
30	Macrophage-derived glutamine boosts satellite cells and muscle regeneration. Nature, 2020, 587, 626-631.	27.8	119
31	Redox Proteomics of Protein-bound Methionine Oxidation. Molecular and Cellular Proteomics, 2011, 10, M110.006866.	3.8	117
32	Reversible labeling of cysteine-containing peptides allows their specific chromatographic isolation for non-gel proteome studies. Proteomics, 2004, 4, 897-908.	2.2	93
33	Protein Methionine Sulfoxide Dynamics in Arabidopsis thaliana under Oxidative Stress. Molecular and Cellular Proteomics, 2015, 14, 1217-1229.	3.8	88
34	A la carte proteomics with an emphasis on gelâ€free techniques. Proteomics, 2007, 7, 2698-2718.	2.2	85
35	In Vitro and in Vivo Protein-bound Tyrosine Nitration Characterized by Diagonal Chromatography. Molecular and Cellular Proteomics, 2009, 8, 2642-2652.	3.8	85
36	Neutrophils Fuel Effective Immune Responses through Gluconeogenesis and Glycogenesis. Cell Metabolism, 2021, 33, 411-423.e4.	16.2	84

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37	Deletion or Inhibition of the Oxygen Sensor PHD1 Protects against Ischemic Stroke via Reprogramming of Neuronal Metabolism. Cell Metabolism, 2016, 23, 280-291.	16.2	77
38	Tumor vessel disintegration by maximum tolerable PFKFB3 blockade. Angiogenesis, 2017, 20, 599-613.	7.2	73
39	Vitamin D controls the capacity of human dendritic cells to induce functional regulatory T cells by regulation of glucose metabolism. Journal of Steroid Biochemistry and Molecular Biology, 2019, 187, 134-145.	2.5	71
40	Prolyl hydroxylase 2 inactivation enhances glycogen storage and promotes excessive neutrophilic responses. Journal of Clinical Investigation, 2017, 127, 3407-3420.	8.2	71
41	The glucose transporter GLUT3 controls T helper 17 cell responses through glycolytic-epigenetic reprogramming. Cell Metabolism, 2022, 34, 516-532.e11.	16.2	70
42	Angiotensin I-Converting Enzyme Inhibitory Activity of Gelatin Hydrolysates and Identification of Bioactive Peptides. Journal of Agricultural and Food Chemistry, 2011, 59, 552-558.	5.2	64
43	Diversity in Protein Glycosylation among Insect Species. PLoS ONE, 2011, 6, e16682.	2.5	62
44	Inhibition of glutamine synthetase in monocytes from patients with acute-on-chronic liver failure resuscitates their antibacterial and inflammatory capacity. Gut, 2019, 68, 1872-1883.	12.1	60
45	AMP-Activated Protein Kinase Is Essential for the Maintenance of Energy Levels during Synaptic Activation. IScience, 2018, 9, 1-13.	4.1	59
46	The Metabolic Map into the Pathomechanism and Treatment of PGM1-CDG. American Journal of Human Genetics, 2019, 104, 835-846.	6.2	59
47	Proteome-wide Characterization of N-Glycosylation Events by Diagonal Chromatography. Journal of Proteome Research, 2006, 5, 2438-2447.	3.7	57
48	ATP13A2-mediated endo-lysosomal polyamine export counters mitochondrial oxidative stress. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 31198-31207.	7.1	57
49	Plant proteins under oxidative attack. Proteomics, 2013, 13, 932-940.	2.2	54
50	A Quantitative Proteomics Design for Systematic Identification of Protease Cleavage Events. Molecular and Cellular Proteomics, 2010, 9, 2327-2333.	3.8	51
51	Mapping Proteolytic Processing in the Secretome of Gastric Cancer-Associated Myofibroblasts Reveals Activation of MMP-1, MMP-2, and MMP-3. Journal of Proteome Research, 2013, 12, 3413-3422.	3.7	50
52	ILF3 is a substrate of SPOP for regulating serine biosynthesis in colorectal cancer. Cell Research, 2020, 30, 163-178.	12.0	48
53	Interaction of the Tobacco Lectin with Histone Proteins Â Â Â. Plant Physiology, 2011, 155, 1091-1102.	4.8	47
54	The Oxygen Sensor PHD2 Controls Dendritic Spines and Synapses via Modification of Filamin A. Cell Reports, 2016, 14, 2653-2667.	6.4	46

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55	Role and therapeutic potential of dietary ketone bodies in lymph vessel growth. Nature Metabolism, 2019, 1, 666-675.	11.9	45
56	A key role for transketolase-like 1 in tumor metabolic reprogramming. Oncotarget, 2016, 7, 51875-51897.	1.8	43
57	Improved tandem mass spectrometric characterization of 3-nitrotyrosine sites in peptides. Rapid Communications in Mass Spectrometry, 2006, 20, 2885-2893.	1.5	41
58	Proteomics methods to study methionine oxidation. Mass Spectrometry Reviews, 2014, 33, 147-156.	5.4	41
59	Differentiation but not ALS mutations in FUS rewires motor neuron metabolism. Nature Communications, 2019, 10, 4147.	12.8	41
60	Adequate hypoxia inducible factor 1Î± signaling is indispensable for bone regeneration. Bone, 2016, 87, 176-186.	2.9	39
61	Protein processing and other modifications analyzed by diagonal peptide chromatography. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2006, 1764, 1801-1810.	2.3	37
62	A novel strategy for the comprehensive analysis of the biomolecular composition of isolated plasma membranes. Molecular Systems Biology, 2011, 7, 541.	7.2	37
63	Improved metabolite identification with MIDAS and MAGMa through MS/MS spectral dataset-driven parameter optimization. Metabolomics, 2016, 12, 1.	3.0	35
64	High entomotoxicity and mechanism of the fungal GalNAc/Gal-specific Rhizoctonia solani lectin in pest insects. Journal of Insect Physiology, 2013, 59, 295-305.	2.0	34
65	Glycosylation Signatures in Drosophila: Fishing with Lectins. Journal of Proteome Research, 2010, 9, 3235-3242.	3.7	33
66	Clinical Metabolomics and Glaucoma. Ophthalmic Research, 2018, 59, 1-6.	1.9	33
67	IL4RÎ± Signaling Abrogates Hypoxic Neutrophil Survival and Limits Acute Lung Injury Responses In Vivo. American Journal of Respiratory and Critical Care Medicine, 2019, 200, 235-246.	5.6	33
68	Sexâ€specific, reciprocal regulation of <scp>ER</scp>Î± and miRâ€22 controls muscle lipid metabolism in male mice. EMBO Journal, 2017, 36, 1199-1214.	7.8	31
69	Exercise-induced angiogenesis is dependent on metabolically primed ATF3/4+ endothelial cells. Cell Metabolism, 2021, 33, 1793-1807.e9.	16.2	28
70	Ischemia-Induced DNA Hypermethylation during Kidney Transplant Predicts Chronic Allograft Injury. Journal of the American Society of Nephrology: JASN, 2018, 29, 1566-1576.	6.1	27
71	Macrophage miR-210 induction and metabolic reprogramming in response to pathogen interaction boost life-threatening inflammation. Science Advances, 2021, 7, .	10.3	26
72	Applications of diagonal chromatography for proteomeâ€wide characterization of protein modifications and activityâ€based analyses. FEBS Journal, 2007, 274, 6277-6289.	4.7	24

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73	GalNAc/Gal-Binding Rhizoctonia solani Agglutinin Has Antiproliferative Activity in Drosophila melanogaster S2 Cells via MAPK and JAK/STAT Signaling. PLoS ONE, 2012, 7, e33680.	2.5	22
74	Defining the molecular basis of oncogenic cooperation between TAL1 expression and Pten deletion in T-ALL using a novel pro-T-cell model system. Leukemia, 2018, 32, 941-951.	7.2	22
75	Sorbitol Is a Severity Biomarker for <scp>PMM2â€CDG</scp> with Therapeutic Implications. Annals of Neurology, 2021, 90, 887-900.	5.3	22
76	A New Approach for Mapping SialylatedN-Glycosites in Serum Proteomes. Journal of Proteome Research, 2007, 6, 4304-4312.	3.7	21
77	Mutations in succinate dehydrogenase B (SDHB) enhance neutrophil survival independent of HIF-1Î± expression. Blood, 2016, 127, 2641-2644.	1.4	21
78	Hypoxia drives murine neutrophil protein scavenging to maintain central carbon metabolism. Journal of Clinical Investigation, 2021, 131, .	8.2	21
79	Aging of Preleukemic Thymocytes Drives CpG Island Hypermethylation in T-cell Acute Lymphoblastic Leukemia. Blood Cancer Discovery, 2020, 1, 274-289.	5.0	21
80	Cardiac Microvascular Endothelial Cells in Pressure Overloadâ€“Induced Heart Disease. Circulation: Heart Failure, 2021, 14, e006979.	3.9	20
81	Lipid droplet degradation by autophagy connects mitochondria metabolism to Prox1-driven expression of lymphatic genes and lymphangiogenesis. Nature Communications, 2022, 13, 2760.	12.8	19
82	Characterization and Solution Structure of Mouse Myristoylated Methionine Sulfoxide Reductase A. Journal of Biological Chemistry, 2012, 287, 25589-25595.	3.4	15
83	RRM2 enhances MYCN-driven neuroblastoma formation and acts as a synergistic target with CHK1 inhibition. Science Advances, 2022, 8, .	10.3	15
84	A stringent approach to improve the quality of nitrotyrosine peptide identifications. Proteomics, 2011, 11, 1094-1098.	2.2	14
85	A20 deficiency in myeloid cells protects mice from diet-induced obesity and insulin resistance due to increased fatty acid metabolism. Cell Reports, 2021, 36, 109748.	6.4	14
86	TRAPPC9-CDG: A novel congenital disorder of glycosylation with dysmorphic features and intellectual disability. Genetics in Medicine, 2022, 24, 894-904.	2.4	13
87	Pyrroline-5-Carboxylate Reductase 1: a novel target for sensitizing multiple myeloma cells to bortezomib by inhibition of PRAS40-mediated protein synthesis. Journal of Experimental and Clinical Cancer Research, 2022, 41, 45.	8.6	13
88	MAIMS: a software tool for sensitive metabolic tracer analysis through the deconvolution of 13C mass isotopologue profiles of large composite metabolites. Metabolomics, 2017, 13, 1.	3.0	12
89	Transcriptomic analysis of CFTR-impaired endothelial cells reveals a pro-inflammatory phenotype. European Respiratory Journal, 2021, 57, 2000261.	6.7	10
90	Altered cholesterol homeostasis in critical illness-induced muscle weakness: effect of exogenous 3-hydroxybutyrate. Critical Care, 2021, 25, 252.	5.8	9

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91	Pyruvate and uridine rescue the metabolic profile of OXPHOS dysfunction. Molecular Metabolism, 2022, 63, 101537.	6.5	9
92	Alternative glycosylation controls endoplasmic reticulum dynamics and tubular extension in mammalian cells. Science Advances, 2021, 7, .	10.3	8
93	Human and mouse nonâ€targeted metabolomics identify 1,5â€anhydroglucitol as SGLT2â€dependent glycemic marker. Clinical and Translational Medicine, 2021, 11, e470.	4.0	8
94	Unraveling the specificities of the different human methionine sulfoxide reductases. Proteomics, 2014, 14, 1990-1998.	2.2	7
95	Oxygraphy Versus Enzymology for the Biochemical Diagnosis of Primary Mitochondrial Disease. Metabolites, 2019, 9, 220.	2.9	6
96	Integrated Proteomic Analysis Reveals a Substantial Enrichment of Protein Trafficking Processes in Hippocampus Tissue after Hypoxic Stress. Journal of Proteome Research, 2010, 9, 204-215.	3.7	5
97	ANTIMETABOLIC COOPERATIVITY WITH THE CLINICALLY-APPROVED L-ASPARAGINASE AND TYROSINE KINASE INHIBITORS TO ERADICATE CML STEM CELLS. Molecular Metabolism, 2021, 55, 101410.	6.5	3
98	Antizyme Inhibitor 1 Regulates Matrikine Expression and Enhances the Metastatic Potential of Aggressive Primary Prostate Cancer. Molecular Cancer Research, 2022, 20, 527-541.	3.4	3
99	Analysis of Endothelial Fatty Acid Metabolism Using Tracer Metabolomics. Methods in Molecular Biology, 2019, 1978, 259-268.	0.9	2
100	TraVis Pies: A Guide for Stable Isotope Metabolomics Interpretation Using an Intuitive Visualization. Metabolites, 2022, 12, 593.	2.9	1
101	Mapping protein N-Glycosylation by COFRADIC. Springer Protocols, 2009, , 1395-1402.	0.3	0
102	Unraveling metabolism during kidney perfusion using tracer studies, a systematic review. Artificial Organs, 0, , .	1.9	0