Carlos Lpez-Otn

List of Publications by Citations

417 papers	70,028 citations	105 h-index	260 g-index
437 ext. papers	82,406 ext. citations	11.5 avg, IF	8.1 L-index

#	Paper	IF	Citations
417	The hallmarks of aging. *Cell*, **2013**, 153, 1194-217	56.2	7165
416	Signatures of mutational processes in human cancer. *Nature*, **2013**, 500, 415-21	50.4	5895
415	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). *Autophagy*, **2016**, 12, 1-222	10.2	3838
414	Guidelines for the use and interpretation of assays for monitoring autophagy. *Autophagy*, **2012**, 8, 445-544	10.2	2783
413	Molecular mechanisms of cell death: recommendations of the Nomenclature Committee on Cell Death 2018. *Cell Death and Differentiation*, **2018**, 25, 486-541	12.7	2160
412	Guidelines for the use and interpretation of assays for monitoring autophagy in higher eukaryotes. *Autophagy*, **2008**, 4, 151-75	10.2	1920
411	Initial sequence of the chimpanzee genome and comparison with the human genome. *Nature*, **2005**, 437, 69-87	50.4	1828
410	Genome sequence of the Brown Norway rat yields insights into mammalian evolution. *Nature*, **2004** , 428, 493-521	50.4	1689
409	International network of cancer genome projects. *Nature*, **2010**, 464, 993-8	50.4	1613
408	Whole-genome sequencing identifies recurrent mutations in chronic lymphocytic leukaemia. *Nature* , **2011**, 475, 101-5	50.4	1206
407	Strategies for MMP inhibition in cancer: innovations for the post-trial era. *Nature Reviews Cancer*, **2002**, 2, 657-72	31.3	1089
406	Molecular definitions of autophagy and related processes. *EMBO Journal*, **2017**, 36, 1811-1836	13	857
405	Pan-cancer analysis of whole genomes. *Nature*, **2020**, 578, 82-93	50.4	840
404	Exome sequencing identifies recurrent mutations of the splicing factor SF3B1 gene in chronic lymphocytic leukemia. *Nature Genetics*, **2011**, 44, 47-52	36.3	752
403	Human and mouse proteases: a comparative genomic approach. *Nature Reviews Genetics*, **2003**, 4, 544-58	30.1	725
402	Biochemical characterization of human collagenase-3. *Journal of Biological Chemistry*, **1996**, 271, 1544-50	5.4	691
401	The genome of a songbird. *Nature*, **2010**, 464, 757-62	50.4	655

400	Emerging roles of proteases in tumour suppression. *Nature Reviews Cancer*, **2007**, 7, 800-8	31.3	646
399	Essential versus accessory aspects of cell death: recommendations of the NCCD 2015. *Cell Death and Differentiation*, **2015**, 22, 58-73	12.7	643
398	Protease degradomics: a new challenge for proteomics. *Nature Reviews Molecular Cell Biology*, **2002**, 3, 509-19	48.7	608
397	Non-coding recurrent mutations in chronic lymphocytic leukaemia. *Nature*, **2015**, 526, 519-24	50.4	565
396	Cellular mechanisms for human procollagenase-3 (MMP-13) activation. Evidence that MT1-MMP (MMP-14) and gelatinase a (MMP-2) are able to generate active enzyme. *Journal of Biological Chemistry*, **1996**, 271, 17124-31	5.4	553
395	Genome analysis of the platypus reveals unique signatures of evolution. *Nature*, **2008**, 453, 175-83	50.4	545
394	Proteases: multifunctional enzymes in life and disease. *Journal of Biological Chemistry*, **2008**, 283, 30433-7	5.4	537
393	Supercomplex assembly determines electron flux in the mitochondrial electron transport chain. *Science*, **2013**, 340, 1567-70	33.3	528
392	Loss of collagenase-2 confers increased skin tumor susceptibility to male mice. *Nature Genetics*, **2003**, 35, 252-7	36.3	501
391	Genomic instability in laminopathy-based premature aging. *Nature Medicine*, **2005**, 11, 780-5	50.5	498
390	Tumor cell traffic through the extracellular matrix is controlled by the membrane-anchored collagenase MT1-MMP. *Journal of Cell Biology*, **2004**, 167, 769-81	7.3	482
389	Critical roles for collagenase-3 (Mmp13) in development of growth plate cartilage and in endochondral ossification. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 17192-7	11.5	439
388	Matrix metalloproteinases in cancer: from new functions to improved inhibition strategies. *International Journal of Developmental Biology*, **2004**, 48, 411-24	1.9	432
387	Comparative and demographic analysis of orang-utan genomes. *Nature*, **2011**, 469, 529-33	50.4	431
386	Metabolic Control of Longevity. *Cell*, **2016**, 166, 802-821	56.2	429
385	Defective prelamin A processing and muscular and adipocyte alterations in Zmpste24 metalloproteinase-deficient mice. *Nature Genetics*, **2002**, 31, 94-9	36.3	426
384	Epigenomic analysis detects widespread gene-body DNA hypomethylation in chronic lymphocytic leukemia. *Nature Genetics*, **2012**, 44, 1236-42	36.3	422
383	Landscape of somatic mutations and clonal evolution in mantle cell lymphoma. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 18250-5	11.5	377

382	Spermidine and resveratrol induce autophagy by distinct pathways converging on the acetylproteome. *Journal of Cell Biology*, **2011**, 192, 615-29	7.3	362
381	Accelerated ageing in mice deficient in Zmpste24 protease is linked to p53 signalling activation. *Nature*, **2005**, 437, 564-8	50.4	362
380	Matrix metalloproteinases: evolution, gene regulation and functional analysis in mouse models. *Biochimica Et Biophysica Acta - Molecular Cell Research*, **2010**, 1803, 3-19	4.9	348
379	Dysregulation of TGF-beta1 receptor activation leads to abnormal lung development and emphysema-like phenotype in core fucose-deficient mice. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 15791-6	11.5	341
378	Tissue-specific autophagy alterations and increased tumorigenesis in mice deficient in Atg4C/autophagin-3. *Journal of Biological Chemistry*, **2007**, 282, 18573-18583	5.4	335
377	New roles for mitochondrial proteases in health, ageing and disease. *Nature Reviews Molecular Cell Biology*, **2015**, 16, 345-59	48.7	333
376	Regulation of autophagy by cytosolic acetyl-coenzyme A. *Molecular Cell*, **2014**, 53, 710-25	17.6	331
375	Deubiquitinases in cancer: new functions and therapeutic options. *Oncogene*, **2012**, 31, 2373-88	9.2	317
374	Combined treatment with statins and aminobisphosphonates extends longevity in a mouse model of human premature aging. *Nature Medicine*, **2008**, 14, 767-72	50.5	300
373	An immunosurveillance mechanism controls cancer cell ploidy. *Science*, **2012**, 337, 1678-84	33.3	299
372	Exosomes and autophagy: coordinated mechanisms for the maintenance of cellular fitness. *Frontiers in Immunology*, **2014**, 5, 403	8.4	275
371	The role of the C-terminal domain of human collagenase-3 (MMP-13) in the activation of procollagenase-3, substrate specificity, and tissue inhibitor of metalloproteinase interaction. *Journal of Biological Chemistry*, **1997**, 272, 7608-16	5.4	263
370	POT1 loss-of-function variants predispose to familial melanoma. *Nature Genetics*, **2014**, 46, 478-481	36.3	241
369	Splicing-directed therapy in a new mouse model of human accelerated aging. *Science Translational Medicine*, **2011**, 3, 106ra107	17.5	240
368	Loss of ZMPSTE24 (FACE-1) causes autosomal recessive restrictive dermopathy and accumulation of Lamin A precursors. *Human Molecular Genetics*, **2005**, 14, 1503-13	5.6	237
367	Membrane-bound serine protease matriptase-2 (Tmprss6) is an essential regulator of iron homeostasis. *Blood*, **2008**, 112, 2539-45	2.2	234
366	Selective subversion of autophagy complexes facilitates completion of the Brucella intracellular cycle. *Cell Host and Microbe*, **2012**, 11, 33-45	23.4	228
365	Cloning, expression analysis, and structural characterization of seven novel human ADAMTSs, a family of metalloproteinases with disintegrin and thrombospondin-1 domains. *Gene*, **2002**, 283, 49-62	3.8	226

364	Induction of collagenase-3 (MMP-13) expression in human skin fibroblasts by three-dimensional collagen is mediated by p38 mitogen-activated protein kinase. *Journal of Biological Chemistry*, **1999**, 274, 2446-55	5.4	222
363	Membrane-bound matrix metalloproteinase-8 on activated polymorphonuclear cells is a potent, tissue inhibitor of metalloproteinase-resistant collagenase and serpinase. *Journal of Immunology*, **2004**, 172, 7791-803	5.3	206
362	Increased inflammation delays wound healing in mice deficient in collagenase-2 (MMP-8). *FASEB Journal*, **2007**, 21, 2580-91	0.9	205
361	Insights into the evolution of longevity from the bowhead whale genome. *Cell Reports*, **2015**, 10, 112-22	10.6	203
360	POT1 mutations cause telomere dysfunction in chronic lymphocytic leukemia. *Nature Genetics*, **2013**, 45, 526-30	36.3	199
359	A comprehensive assessment of somatic mutation detection in cancer using whole-genome sequencing. *Nature Communications*, **2015**, 6, 10001	17.4	199
358	The regulatory crosstalk between kinases and proteases in cancer. *Nature Reviews Cancer*, **2010**, 10, 278-92	31.3	192
357	Clinical impact of clonal and subclonal TP53, SF3B1, BIRC3, NOTCH1, and ATM mutations in chronic lymphocytic leukemia. *Blood*, **2016**, 127, 2122-30	2.2	188
356	Matrix metalloproteinase 13 (collagenase 3) in human rheumatoid synovium. *Arthritis and Rheumatism*, **1997**, 40, 1391-9		187
355	Identification and structural and functional characterization of human enamelysin (MMP-20). *Biochemistry*, **1997**, 36, 15101-8	3.2	183
354	Aging and chronic DNA damage response activate a regulatory pathway involving miR-29 and p53. *EMBO Journal*, **2011**, 30, 2219-32	13	182
353	Identification and characterization of a novel human matrix metalloproteinase with unique structural characteristics, chromosomal location, and tissue distribution. *Journal of Biological Chemistry*, **1997**, 272, 4281-6	5.4	182
352	Nuclear lamina defects cause ATM-dependent NF-B activation and link accelerated aging to a systemic inflammatory response. *Genes and Development*, **2012**, 26, 2311-24	12.6	181
351	Loss of mitochondrial protease OMA1 alters processing of the GTPase OPA1 and causes obesity and defective thermogenesis in mice. *EMBO Journal*, **2012**, 31, 2117-33	13	180
350	The common marmoset genome provides insight into primate biology and evolution. *Nature Genetics*, **2014**, 46, 850-7	36.3	179
349	Human autophagins, a family of cysteine proteinases potentially implicated in cell degradation by autophagy. *Journal of Biological Chemistry*, **2003**, 278, 3671-8	5.4	172
348	Cloning and enzymatic analysis of 22 novel human ubiquitin-specific proteases. *Biochemical and Biophysical Research Communications*, **2004**, 314, 54-62	3.4	172
347	Structural analysis and promoter characterization of the human collagenase-3 gene (MMP13). *Genomics*, **1997**, 40, 222-33	4.3	171

346	Nondegradative role of Atg5-Atg12/ Atg16L1 autophagy protein complex in antiviral activity of interferon gamma. *Cell Host and Microbe*, **2012**, 11, 397-409	23.4	167
345	Progeria: a paradigm for translational medicine. *Cell*, **2014**, 156, 400-7	56.2	165
344	Healthspan and lifespan extension by fecal microbiota transplantation into progeroid mice. *Nature Medicine*, **2019**, 25, 1234-1242	50.5	164
343	Differential effects of transforming growth factor-beta on the expression of collagenase-1 and collagenase-3 in human fibroblasts. *Journal of Biological Chemistry*, **1998**, 273, 9769-77	5.4	163
342	Membrane type 4 matrix metalloproteinase (MMP17) has tumor necrosis factor-alpha convertase activity but does not activate pro-MMP2. *Journal of Biological Chemistry*, **2000**, 275, 14046-55	5.4	161
341	Cloning and characterization of human MMP-23, a new matrix metalloproteinase predominantly expressed in reproductive tissues and lacking conserved domains in other family members. *Journal of Biological Chemistry*, **1999**, 274, 4570-6	5.4	159
340	LPS responsiveness and neutrophil chemotaxis in vivo require PMN MMP-8 activity. *PLoS ONE*, **2007** , 2, e312	3.7	157
339	Induction of matrix metalloproteinase activation cascades based on membrane-type 1 matrix metalloproteinase: associated activation of gelatinase A, gelatinase B and collagenase 3. *Biochemical Journal*, **1998**, 331 (Pt 2), 453-8	3.8	156
338	Defective extracellular pyrophosphate metabolism promotes vascular calcification in a mouse model of Hutchinson-Gilford progeria syndrome that is ameliorated on pyrophosphate treatment. *Circulation*, **2013**, 127, 2442-51	16.7	149
337	Exome sequencing and functional analysis identifies BANF1 mutation as the cause of a hereditary progeroid syndrome. *American Journal of Human Genetics*, **2011**, 88, 650-6	11	148
336	Genome-wide association study identifies multiple risk loci for chronic lymphocytic leukemia. *Nature Genetics*, **2013**, 45, 868-76	36.3	147
335	Membrane type-matrix metalloproteinases (MT-MMP). *Current Topics in Developmental Biology*, **2003**, 54, 1-74	5.3	146
334	Nuclear envelope defects cause stem cell dysfunction in premature-aging mice. *Journal of Cell Biology*, **2008**, 181, 27-35	7.3	145
333	Matrix metalloproteinase-8 functions as a metastasis suppressor through modulation of tumor cell adhesion and invasion. *Cancer Research*, **2008**, 68, 2755-63	10.1	144
332	Transcriptome characterization by RNA sequencing identifies a major molecular and clinical subdivision in chronic lymphocytic leukemia. *Genome Research*, **2014**, 24, 212-26	9.7	143
331	A genomic analysis of rat proteases and protease inhibitors. *Genome Research*, **2004**, 14, 609-22	9.7	142
330	Autophagy is essential for mouse sense of balance. *Journal of Clinical Investigation*, **2010**, 120, 2331-44	15.9	137
329	NOTCH1 mutations identify a genetic subgroup of chronic lymphocytic leukemia patients with high risk of transformation and poor outcome. *Leukemia*, **2013**, 27, 1100-6	10.7	135

328	ATP-dependent Lon protease controls tumor bioenergetics by reprogramming mitochondrial activity. *Cell Reports*, **2014**, 8, 542-56	10.6	133
327	Activation of progelatinase B (proMMP-9) by active collagenase-3 (MMP-13). *FEBS Journal*, **1997**, 248, 369-73		132
326	Matriptase-2, a membrane-bound mosaic serine proteinase predominantly expressed in human liver and showing degrading activity against extracellular matrix proteins. *Journal of Biological Chemistry*, **2002**, 277, 37637-46	5.4	131
325	Matrix metalloproteinase-8 deficiency promotes granulocytic allergen-induced airway inflammation. *Journal of Immunology*, **2005**, 175, 2589-97	5.3	128
324	The helping hand of collagenase-3 (MMP-13): 2.7 A crystal structure of its C-terminal haemopexin-like domain. *Journal of Molecular Biology*, **1996**, 264, 556-66	6.5	127
323	The Degradome database: mammalian proteases and diseases of proteolysis. *Nucleic Acids Research* , **2009**, 37, D239-43	20.1	124
322	Premature aging in mice activates a systemic metabolic response involving autophagy induction. *Human Molecular Genetics*, **2008**, 17, 2196-211	5.6	123
321	Matrix metalloproteinases and tumor progression. *Advances in Experimental Medicine and Biology*, **2003**, 532, 91-107	3.6	118
320	Remodeling of Bone Marrow Hematopoietic Stem Cell Niches Promotes Myeloid Cell Expansion during Premature or Physiological Aging. *Cell Stem Cell*, **2019**, 25, 407-418.e6	18	114
319	Collagenase-3 (MMP-13) expression in chondrosarcoma cells and its regulation by basic fibroblast growth factor. *American Journal of Pathology*, **1998**, 153, 91-101	5.8	110
318	Collagenase 2 (MMP-8) expression in murine tissue-remodeling processes. Analysis of its potential role in postpartum involution of the uterus. *Journal of Biological Chemistry*, **1998**, 273, 23959-68	5.4	110
317	Mutations in filamin C cause a new form of familial hypertrophic cardiomyopathy. *Nature Communications*, **2014**, 5, 5326	17.4	109
316	A genome-wide association scan in admixed Latin Americans identifies loci influencing facial and scalp hair features. *Nature Communications*, **2016**, 7, 10815	17.4	108
315	The amino acid sequence of Ole e I, the major allergen from olive tree (Olea europaea) pollen. *FEBS Journal*, **1993**, 216, 863-9		107
314	Cathepsin Z, a novel human cysteine proteinase with a short propeptide domain and a unique chromosomal location. *Journal of Biological Chemistry*, **1998**, 273, 16816-23	5.4	106
313	Insulin-like growth factor 1 treatment extends longevity in a mouse model of human premature aging by restoring somatotroph axis function. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 16268-73	11.5	105
312	A genomic view of the complexity of mammalian proteolytic systems. *Biochemical Society Transactions*, **2005**, 33, 331-4	5.1	104
311	Protective roles of matrix metalloproteinases: from mouse models to human cancer. *Cell Cycle*, **2009**, 8, 3657-62	4.7	103

310	Biochemical characterization of the catalytic domain of human matrix metalloproteinase 19. Evidence for a role as a potent basement membrane degrading enzyme. *Journal of Biological Chemistry*, **2000**, 275, 14809-16	5.4	103
309	The reference epigenome and regulatory chromatin landscape of chronic lymphocytic leukemia. *Nature Medicine*, **2018**, 24, 868-880	50.5	103
308	Nonsense mutations in the shelterin complex genes ACD and TERF2IP in familial melanoma. *Journal of the National Cancer Institute*, **2015**, 107,	9.7	102
307	Protease degradomics: mass spectrometry discovery of protease substrates and the CLIP-CHIP, a dedicated DNA microarray of all human proteases and inhibitors. *Biological Chemistry*, **2004**, 385, 493-504	4.5	101
306	Arachidonic acid binds to apolipoprotein D: implications for the protein's function. *FEBS Letters*, **1995**, 366, 53-6	3.8	100
305	A role of matrix metalloproteinase-8 in atherosclerosis. *Circulation Research*, **2009**, 105, 921-9	15.7	99
304	Néstor-Guillermo progeria syndrome: a novel premature aging condition with early onset and chronic development caused by BANF1 mutations. *American Journal of Medical Genetics, Part A*, **2011**, 155A, 2617-25	2.5	97
303	Collagenase-2 (matrix metalloproteinase-8) plays a protective role in tongue cancer. *British Journal of Cancer*, **2008**, 98, 766-75	8.7	97
302	Collagenase-3 binds to a specific receptor and requires the low density lipoprotein receptor-related protein for internalization. *Journal of Biological Chemistry*, **1999**, 274, 30087-93	5.4	97
301	Essential role for the ATG4B protease and autophagy in bleomycin-induced pulmonary fibrosis. *Autophagy*, **2015**, 11, 670-84	10.2	95
300	A regulatory cascade involving retinoic acid, Cbfa1, and matrix metalloproteinases is coupled to the development of a process of perichondrial invasion and osteogenic differentiation during bone formation. *Journal of Cell Biology*, **2001**, 155, 1333-44	7.3	95
299	The role of matrix metalloproteinases in aging: Tissue remodeling and beyond. *Biochimica Et Biophysica Acta - Molecular Cell Research*, **2017**, 1864, 2015-2025	4.9	94
298	Regulation of TMPRSS6 by BMP6 and iron in human cells and mice. *Blood*, **2011**, 118, 747-56	2.2	94
297	Matriptase-2 (TMPRSS6): a proteolytic regulator of iron homeostasis. *Haematologica*, **2009**, 94, 840-9	6.6	94
296	Hallmarks of Health. *Cell*, **2021**, 184, 33-63	56.2	94
295	A B-cell epigenetic signature defines three biologic subgroups of chronic lymphocytic leukemia with clinical impact. *Leukemia*, **2015**, 29, 598-605	10.7	92
294	Recombinant CUB-1 domain polypeptide inhibits the cleavage of ULVWF strings by ADAMTS13 under flow conditions. *Blood*, **2005**, 106, 4139-45	2.2	92
293	Resistance of collagenase-2 (matrix metalloproteinase-8)-deficient mice to TNF-induced lethal hepatitis. *Journal of Immunology*, **2005**, 175, 7642-9	5.3	90

292	Activation of AMP-activated protein kinase (AMPK) provides a metabolic barrier to reprogramming somatic cells into stem cells. *Cell Cycle*, **2012**, 11, 974-89	4.7	87
291	Cystatin D is a candidate tumor suppressor gene induced by vitamin D in human colon cancer cells. *Journal of Clinical Investigation*, **2009**, 119, 2343-58	15.9	87
290	Matrix metalloproteinase-13 is highly expressed in destructive periodontal disease activity. *Journal of Periodontology*, **2006**, 77, 1863-70	4.6	87
289	Matrix metalloproteinase 13 modulates intestinal epithelial barrier integrity in inflammatory diseases by activating TNF. *EMBO Molecular Medicine*, **2013**, 5, 1000-16	12	86
288	Higher sensitivity of Adamts12-deficient mice to tumor growth and angiogenesis. *Oncogene*, **2010**, 29, 3025-32	9.2	85
287	Extreme genomic erosion after recurrent demographic bottlenecks in the highly endangered Iberian lynx. *Genome Biology*, **2016**, 17, 251	18.3	85
286	Loss of OMA1 delays neurodegeneration by preventing stress-induced OPA1 processing in mitochondria. *Journal of Cell Biology*, **2016**, 212, 157-66	7.3	84
285	Diet-induced obesity and reduced skin cancer susceptibility in matrix metalloproteinase 19-deficient mice. *Molecular and Cellular Biology*, **2004**, 24, 5304-13	4.8	84
284	Mutations in TLR/MYD88 pathway identify a subset of young chronic lymphocytic leukemia patients with favorable outcome. *Blood*, **2014**, 123, 3790-6	2.2	82
283	NF-B activation impairs somatic cell reprogramming in ageing. *Nature Cell Biology*, **2015**, 17, 1004-13	23.4	80
282	Matrix metalloprotease 8-dependent extracellular matrix cleavage at the blood-CSF barrier contributes to lethality during systemic inflammatory diseases. *Journal of Neuroscience*, **2012**, 32, 9805-16	6.6	80
281	Structural and enzymatic characterization of Drosophila Dm2-MMP, a membrane-bound matrix metalloproteinase with tissue-specific expression. *Journal of Biological Chemistry*, **2002**, 277, 23321-9	5.4	80
280	Evaluation of some newer matrix metalloproteinases. *Annals of the New York Academy of Sciences*, **1999**, 878, 25-39	6.5	80
279	The U1 spliceosomal RNA is recurrently mutated in multiple cancers. *Nature*, **2019**, 574, 712-716	50.4	79
278	ADAMTS proteases and cancer. *Matrix Biology*, **2015**, 44-46, 77-85	11.4	79
277	Identification of mitochondrial dysfunction in Hutchinson-Gilford progeria syndrome through use of stable isotope labeling with amino acids in cell culture. *Journal of Proteomics*, **2013**, 91, 466-77	3.9	79
276	Autophagy in major human diseases. *EMBO Journal*, **2021**, 40, e108863	13	79
275	Molecular mechanisms of normal and pathological aging. *Orphanet Journal of Rare Diseases*, **2015**, 10,	4.2	78

274	Activation of the mitogen activated protein kinase extracellular signal-regulated kinase 1 and 2 by the nitric oxide-cGMP-cGMP-dependent protein kinase axis regulates the expression of matrix metalloproteinase 13 in vascular endothelial cells. *Molecular Pharmacology*, **2002**, 62, 927-35	4.3	78
273	Zn-alpha 2-glycoprotein levels in breast cancer cytosols and correlation with clinical, histological and biochemical parameters. *European Journal of Cancer*, **1993**, 29A, 1256-60	7.5	77
272	Hallmarks of progeroid syndromes: lessons from mice and reprogrammed cells. *DMM Disease Models and Mechanisms*, **2016**, 9, 719-35	4.1	76
271	New and paradoxical roles of matrix metalloproteinases in the tumor microenvironment. *Frontiers in Pharmacology*, **2012**, 3, 140	5.6	76
270	Collagenase-3 expression is associated with advanced local invasion in human squamous cell carcinomas of the larynx. *Journal of Pathology*, **1998**, 186, 144-50	9.4	75
269	Moving Frailty Toward Clinical Practice: NIA Intramural Frailty Science Symposium Summary. *Journal of the American Geriatrics Society*, **2019**, 67, 1559-1564	5.6	74
268	Age-driven developmental drift in the pathogenesis of idiopathic pulmonary fibrosis. *European Respiratory Journal*, **2016**, 48, 538-52	13.6	74
267	Regulation of ATG4B stability by RNF5 limits basal levels of autophagy and influences susceptibility to bacterial infection. *PLoS Genetics*, **2012**, 8, e1003007	6	74
266	MMP13 mutation causes spondyloepimetaphyseal dysplasia, Missouri type (SEMD(MO). *Journal of Clinical Investigation*, **2005**, 115, 2832-42	15.9	74
265	Cross-reactivity between tumor MHC class I-restricted antigens and an enterococcal bacteriophage. *Science*, **2020**, 369, 936-942	33.3	74
264	Identification and characterization of ADAMTS-20 defines a novel subfamily of metalloproteinases-disintegrins with multiple thrombospondin-1 repeats and a unique GON domain. *Journal of Biological Chemistry*, **2003**, 278, 13382-9	5.4	73
263	An overview of collagenase-3 expression in malignant tumors and analysis of its potential value as a target in antitumor therapies. *Clinica Chimica Acta*, **2000**, 291, 137-55	6.2	73
262	Expression and regulation of collagenase-3 (MMP-13) in human malignant tumors. *Apmis*, **1999**, 107, 45-53	3.4	73
261	Methionine Restriction Extends Lifespan in Progeroid Mice and Alters Lipid and Bile Acid Metabolism. *Cell Reports*, **2018**, 24, 2392-2403	10.6	72
260	OMA1 mediates OPA1 proteolysis and mitochondrial fragmentation in experimental models of ischemic kidney injury. *American Journal of Physiology - Renal Physiology*, **2014**, 306, F1318-26	4.3	72
259	The ADAMTS12 metalloproteinase exhibits anti-tumorigenic properties through modulation of the Ras-dependent ERK signalling pathway. *Journal of Cell Science*, **2007**, 120, 3544-52	5.3	72
258	Human progeroid syndromes, aging and cancer: new genetic and epigenetic insights into old questions. *Cellular and Molecular Life Sciences*, **2007**, 64, 155-70	10.3	71
257	The functional and pathologic relevance of autophagy proteases. *Journal of Clinical Investigation*, **2015**, 125, 33-41	15.9	70

256	Wheat flour peroxidase is a prominent allergen associated with bakerʀs asthma. *Clinical and Experimental Allergy*, **1997**, 27, 1130-1137	4.1	70
255	Identification and characterization of human and mouse ovastacin: a novel metalloproteinase similar to hatching enzymes from arthropods, birds, amphibians, and fish. *Journal of Biological Chemistry*, **2004**, 279, 26627-34	5.4	70
254	Resistance to bleomycin-induced lung fibrosis in MMP-8 deficient mice is mediated by interleukin-10. *PLoS ONE*, **2010**, 5, e13242	3.7	69
253	The ADAMTS12 metalloprotease gene is epigenetically silenced in tumor cells and transcriptionally activated in the stroma during progression of colon cancer. *Journal of Cell Science*, **2009**, 122, 2906-13	5.3	67
252	Comparative analysis of cancer genes in the human and chimpanzee genomes. *BMC Genomics*, **2006**, 7, 15	4.5	67
251	Collagenase-3 (MMP-13) and its activators in rheumatoid arthritis: localization in the pannus-hard tissue junction and inhibition by alendronate. *Matrix Biology*, **1999**, 18, 401-12	11.4	67
250	Clonal evolution in leukemia. *Nature Medicine*, **2017**, 23, 1135-1145	50.5	66
249	Matrix metalloproteinase-19 is a key regulator of lung fibrosis in mice and humans. *American Journal of Respiratory and Critical Care Medicine*, **2012**, 186, 752-62	10.2	66
248	Genetic inactivation of ADAMTS15 metalloprotease in human colorectal cancer. *Cancer Research*, **2009**, 69, 4926-34	10.1	66
247	Molecular cloning and structural and functional characterization of human cathepsin F, a new cysteine proteinase of the papain family with a long propeptide domain. *Journal of Biological Chemistry*, **1999**, 274, 13800-9	5.4	66
246	Functional interaction between acyl-CoA synthetase 4, lipooxygenases and cyclooxygenase-2 in the aggressive phenotype of breast cancer cells. *PLoS ONE*, **2010**, 5, e15540	3.7	65
245	Clinical impact of the subclonal architecture and mutational complexity in chronic lymphocytic leukemia. *Leukemia*, **2018**, 32, 645-653	10.7	64
244	MT5-MMP regulates adult neural stem cell functional quiescence through the cleavage of N-cadherin. *Nature Cell Biology*, **2014**, 16, 629-38	23.4	64
243	Comparative genomic analysis of human and chimpanzee proteases. *Genomics*, **2005**, 86, 638-47	4.3	63
242	Overproduction and purification of biologically active native fungal alpha-sarcin in Escherichia coli. *Gene*, **1994**, 142, 147-51	3.8	63
241	Comprehensive characterization of complex structural variations in cancer by directly comparing genome sequence reads. *Nature Biotechnology*, **2014**, 32, 1106-12	44.5	62
240	Collagenase-2 (MMP-8) and matrilysin-2 (MMP-26) expression in human wounds of different etiologies. *Wound Repair and Regeneration*, **2007**, 15, 47-57	3.6	62
239	Mutational analysis of the human cyclin-dependent kinase inhibitor p27kip1 in primary breast carcinomas. *Human Genetics*, **1996**, 97, 91-4	6.3	62

238	Development of a CRISPR/Cas9-based therapy for Hutchinson-Gilford progeria syndrome. *Nature Medicine*, **2019**, 25, 423-426	50.5	62
237	Vascular Smooth Muscle-Specific Progerin Expression Accelerates Atherosclerosis and Death in a Mouse Model of Hutchinson-Gilford Progeria Syndrome. *Circulation*, **2018**, 138, 266-282	16.7	61
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