Francis J Castellino

List of Publications by Year
in descending order

121 papers	3,670 citations	159525 30 h-index	155592 55 g-index
123 all docs	123 docs citations	123 times ranked	2769 citing authors

#	Article	IF	Citations
1	Structure and function of the plasminogen/plasmin system. Thrombosis and Haemostasis, 2005, 93, 647-654.	1.8	404
2	Measurement of the binding of antifibrinolytic amino acids to various plasminogens. Archives of Biochemistry and Biophysics, 1972, 151, 194-199.	1.4	308
3	Bacterial Plasminogen Receptors Utilize Host Plasminogen System for Effective Invasion and Dissemination. Journal of Biomedicine and Biotechnology, 2012, 2012, 1-19.	3.0	125
4	Characterization of kringle domains of angiostatin as antagonists of endothelial cell migration, an important process in angiogenesis. FASEB Journal, 1998, 12, 1731-1738.	0.2	123
5	Structure and Ligand Binding Determinants of the Recombinant Kringle 5 Domain of Human Plasminogenâ€,â€¡. Biochemistry, 1998, 37, 3258-3271.	1.2	98
6	Biochemistry of Human Plasminogen. Seminars in Thrombosis and Hemostasis, 1984, 10, 18-23.	1.5	88
7	Multiplicity of rabbit plasminogen. Physical characterization. Biochemistry, 1972, 11, 4451-4458.	1.2	85
8	The effect of Ïµ-amino caproic acid on the gross conformation of plasminogen and plasmin. Archives of Biochemistry and Biophysics, 1975, 170, 300-305.	1.4	85
9	Crystal Structures of the Recombinant Kringle 1 Domain of Human Plasminogen in Complexes with the Ligands Îµ-Aminocaproic Acid and trans-4-(Aminomethyl)cyclohexane-1-carboxylic Acid. Biochemistry, 1996, 35, 2567-2576.	1.2	84
10	Direct evidence for the generation of an active site in the plasminogen moiety of the streptokinase-human plasminogen activator complex. Biochemical and Biophysical Research Communications, 1974, 57, 47-54.	1.0	83
11	Fibrin is a critical regulator of neutrophil effector function at the oral mucosal barrier. Science, 2021, 374, eabl5450.	6.0	75
12	Calcium Binding Properties of Synthetic Î³-Carboxyglutamic Acid-Containing Marine Cone Snail â€œSleeperâ€•Peptides, Conantokin-G and Conantokin-Tâ€. Biochemistry, 1996, 35, 16528-16534.	1.2	74
13	Kringle 2 Mediates High Affinity Binding of Plasminogen to an Internal Sequence in Streptococcal Surface Protein PAM. Journal of Biological Chemistry, 1998, 273, 24420-24424.	1.6	72
14	Effects of human fibrinogen and its cleavage products on activation of human plasminogen by streptokinase. Biochemistry, 1985, 24, 3429-3434.	1.2	67
15	Structure and binding determinants of the recombinant kringle-2 domain of human plasminogen to an internal peptide from a group A Streptococcal surface protein 1 1Edited by R. Huber. Journal of Molecular Biology, 2001, 308, 705-719.	2.0	62
16	Mapping of Disulfide Bridges in Antifreeze Proteins from Overwintering Larvae of the BeetleDendroides canadensisâ€. Biochemistry, 1998, 37, 6343-6350.	1.2	53
17	Recognition of Plasminogen Activator Inhibitor Type 1 as the Primary Regulator of Fibrinolysis. Current Drug Targets, 2019, 20, 1695-1701.	1.0	52
18	Domain Interactions between Streptokinase and Human Plasminogenâ€. Biochemistry, 2001, 40, 14686-14695.	1.2	48

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19	Activation of Human Plasminogen by Staphylokinase. Direct Evidence That Preformed Plasmin Is Necessary for Activation to Occur. Blood, 1997, 89, 1585-1589.	0.6	47
20	The Kringle Domains of Human Plasminogen. Novartis Foundation Symposium, 1997, 212, 46-65.	1.2	45
21	Expression of Human Plasminogen inDrosophilaSchneider S2 Cells. Protein Expression and Purification, 1999, 16, 136-143.	0.6	44
22	Plasminogen activator inhibitor-1 stimulates macrophage activation through Toll-like Receptor-4. Biochemical and Biophysical Research Communications, 2016, 477, 503-508.	1.0	44
23	Roles of individual kringle domains in the functioning of positive and negative effectors of human plasminogen activation. Biochemistry, 1995, 34, 1482-1488.	1.2	43
24	Contributions of Individual Kringle Domains toward Maintenance of the Chloride-Induced Tight Conformation of Human Glutamic Acid-1 Plasminogen. Biochemistry, 1995, 34, 9581-9586.	1.2	42
25	Development of Pulmonary Fibrosis in Fibrinogenâ€Deficient Mice. Annals of the New York Academy of Sciences, 2001, 936, 542-548.	1.8	39
26	Characterization of Streptokinases from Group A Streptococci Reveals a Strong Functional Relationship That Supports the Coinheritance of Plasminogen-binding M Protein and Cluster 2b Streptokinase. Journal of Biological Chemistry, 2012, 287, 42093-42103.	1.6	36
27	Purification and properties of <i>Î±</i>-mannosidase II from Golgi-like membranes of baculovirus-infected Spodoptera frugiperda (IPLB-SF-21AE) cells. Biochemical Journal, 1997, 324, 951-956.	1.7	34
28	Early coagulation events induce acute lung injury in a rat model of blunt traumatic brain injury. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2016, 311, L74-L86.	1.3	34
29	A single plasmid transfection that offers a significant advantage associated with puromycin selection in Drosophila Schneider S2 cells expressing heterologous proteins. Cytotechnology, 2008, 57, 45-49.	0.7	33
30	A CCR2 macrophage endocytic pathway mediates extravascular fibrin clearance in vivo. Blood, 2016, 127, 1085-1096.	0.6	33
31	Role of tryptophan-74 of the recombinant kringle 2 domain of tissue-type plasminogen activator in its .omega.-amino acid binding properties. Biochemistry, 1992, 31, 3326-3335.	1.2	30
32	Mice with a severe deficiency of the endothelial protein C receptor gene develop, survive, and reproduce normally, and do not present with enhanced arterial thrombosis after challenge. Thrombosis and Haemostasis, 2002, 88, 462-72.	1.8	30
33	Specific anionic residues of the recombinant kringle 2 domain of tissue-type plasminogen activator that are responsible for stabilization of its interaction with .omega.-amino acid ligands. Biochemistry, 1993, 32, 3540-3548.	1.2	29
34	A Natural Inactivating Mutation in the CovS Component of the CovRS Regulatory Operon in a Pattern D Streptococcal pyogenes Strain Influences Virulence-associated Genes*. Journal of Biological Chemistry, 2013, 288, 6561-6573.	1.6	29
35	Subtype-selective antagonism of N-methyl-d-aspartate receptor ion channels by synthetic conantokin peptides. Neuropharmacology, 2007, 53, 145-156.	2.0	28
36	Mutations in the Control of Virulence Sensor Gene from Streptococcus pyogenes after Infection in Mice Lead to Clonal Bacterial Variants with Altered Gene Regulatory Activity and Virulence. PLoS ONE, 2014, 9, e100698.	1.1	27

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37	The NMR solution structure of the NMDA receptor antagonist, conantokin-T, in the absence of divalent metal ions. FEBS Letters, 1997, 411, 19-26.	1.3	26
38	The cationic locus on the recombinant kringle 2 domain of tissue-type plasminogen activator that stabilizes its interaction with .omega.-amino acids. Biochemistry, 1992, 31, 11698-11706.	1.2	25
39	Role of Tryptophan-63 of the Kringle 2 Domain of Tissue-Type Plasminogen Activator in Its Thermal Stability, Folding, and Ligand Binding Propertiesâ€. Biochemistry, 1997, 36, 7652-7663.	1.2	25
40	NMDA-receptor antagonist requirements in conantokin-G. FEBS Letters, 1998, 435, 257-262.	1.3	24
41	Complement-mediated Opsonization of Invasive Group A Streptococcus pyogenes Strain AP53 Is Regulated by the Bacterial Two-component Cluster of Virulence Responder/Sensor (CovRS) System. Journal of Biological Chemistry, 2013, 288, 27494-27504.	1.6	24
42	Phenotypic differentiation of Streptococcus pyogenes populations is induced by recombination-driven gene-specific sweeps. Scientific Reports, 2016, 6, 36644.	1.6	24
43	Pharmacology of triheteromeric N-Methyl-d-Aspartate Receptors. Neuroscience Letters, 2016, 617, 240-246.	1.0	24
44	Serine-578 Is a Major Phosphorylation Locus in Human Plasma Plasminogenâ€. Biochemistry, 1997, 36, 8100-8106.	1.2	23
45	X-ray Crystallographic Structure of the Angiogenesis Inhibitor, Angiostatin, Bound to a Peptide from the Group A Streptococcal Surface Protein PAMâ€,â€¡. Biochemistry, 2006, 45, 11052-11060.	1.2	23
46	Synthesis, purification, and properties of a peptide that enhances the activation of human [Glu₁]plasminogen by tissue plasminogen activator and retards fibrin polymerization. International Journal of Peptide and Protein Research, 1990, 35, 73-80.	0.1	23
47	Structure-function relationships of the NMDA receptor antagonist peptide, conantokin-R. FEBS Letters, 2000, 470, 139-146.	1.3	22
48	Amino acid determinants for NMDA receptor inhibition by conantokin-T. Journal of Neurochemistry, 2001, 77, 812-822.	2.1	22
49	Direct Host Plasminogen Binding to Bacterial Surface M-protein in Pattern D Strains of Streptococcus pyogenes Is Required for Activation by Its Natural Coinherited SK2b Protein. Journal of Biological Chemistry, 2015, 290, 18833-18842.	1.6	22
50	Genomic Characterization of a Pattern D Streptococcus pyogenes <i>emm53</i> Isolate Reveals a Genetic Rationale for Invasive Skin Tropicity. Journal of Bacteriology, 2016, 198, 1712-1724.	1.0	22
51	Solution structure of the complex of VEK-30 and plasminogen kringle 2. Journal of Structural Biology, 2010, 169, 349-359.	1.3	21
52	Highâ€level secretion in <i>Pichia pastoris</i> and biochemical characterization of the recombinantkringle 2 domain of tissueâ€type plasminogen activator. Biotechnology and Applied Biochemistry, 1997, 25, 63-74.	1.4	21
53	Enhancement through Mutagenesis of the Binding of the Isolated Kringle 2 Domain of Human Plasminogen to Ï‰-Amino Acid Ligands and to an Internal Sequence of a Streptococcal Surface Protein. Journal of Biological Chemistry, 1999, 274, 22380-22386.	1.6	20
54	Attenuation of Neointima Formation Following Arterial Injury in PAIâ€1 Deficient Mice. Annals of the New York Academy of Sciences, 2001, 936, 466-468.	1.8	20

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55	Binding of calcium to synthetic peptides containing Î³â€carboxyglutamic acid. International Journal of Peptide and Protein Research, 1993, 41, 567-575.	0.1	20
56	Unique Genomic Arrangements in an Invasive Serotype M23 Strain of Streptococcus pyogenes Identify Genes That Induce Hypervirulence. Journal of Bacteriology, 2014, 196, 4089-4102.	1.0	20
57	Streptococcus pyogenes Employs Strain-dependent Mechanisms of C3b Inactivation to Inhibit Phagocytosis and Killing of Bacteria. Journal of Biological Chemistry, 2016, 291, 9181-9189.	1.6	20
58	Rational design of syn-safencin, a novel linear antimicrobial peptide derived from the circular bacteriocin safencin AS-48. Journal of Antibiotics, 2018, 71, 592-600.	1.0	20
59	Characterization of a cDNA Encoding Murine Coagulation Factor VII. Thrombosis and Haemostasis, 1996, 75, 481-487.	1.8	20
60	The Hydrophobic Nature of Residue-5 of Human Protein C Is a Major Determinant of Its Functional Interactions with Acidic Phospholipid Vesicles. Biochemistry, 1996, 35, 7093-7099.	1.2	19
61	The Lack of Binding of VEK-30, an Internal Peptide from the Group A Streptococcal M-like Protein, PAM, to Murine Plasminogen Is due to Two Amino Acid Replacements in the Plasminogen Kringle-2 Domain. Journal of Biological Chemistry, 2008, 283, 1580-1587.	1.6	19
62	Functional differences between Streptococcus pyogenes cluster 1 and cluster 2b streptokinases are determined by their Î²-domains. FEBS Letters, 2013, 587, 1304-1309.	1.3	19
63	Abrogation of Plasminogen Activator Inhibitor-1-Vitronectin Interaction Ameliorates Acute Kidney Injury in Murine Endotoxemia. PLoS ONE, 2015, 10, e0120728.	1.1	18
64	Conantokin-G Attenuates Detrimental Effects of NMDAR Hyperactivity in an Ischemic Rat Model of Stroke. PLoS ONE, 2015, 10, e0122840.	1.1	18
65	Variable region in streptococcal M-proteins provides stable binding with host fibrinogen for plasminogen-mediated bacterial invasion. Journal of Biological Chemistry, 2017, 292, 6775-6785.	1.6	18
66	Synthetic Antimicrobial Peptide Tuning Permits Membrane Disruption and Interpeptide Synergy. ACS Pharmacology and Translational Science, 2020, 3, 418-424.	2.5	18
67	Dimerization Is Not a Determining Factor for Functional High Affinity Human Plasminogen Binding by the Group A Streptococcal Virulence Factor PAM and Is Mediated by Specific Residues within the PAM a1a2 Domain. Journal of Biological Chemistry, 2014, 289, 21684-21693.	1.6	17
68	CovRS-Regulated Transcriptome Analysis of a Hypervirulent M23 Strain of Group A Streptococcus pyogenes Provides New Insights into Virulence Determinants. Journal of Bacteriology, 2015, 197, 3191-3205.	1.0	17
69	Involvement of Tyrosine-76 of the Kringle 2 Domain of Tissue-Type Plasminogen Activator in Its Thermal Stability and Its .omega.-Amino Acid Ligand Binding Site. Biochemistry, 1994, 33, 3509-3514.	1.2	16
70	Variations in the secondary structures of PAM proteins influence their binding affinities to human plasminogen. Journal of Structural Biology, 2019, 206, 193-203.	1.3	15
71	NMR Backbone Dynamics of VEK-30 Bound to the Human Plasminogen Kringle 2 Domain. Biophysical Journal, 2010, 99, 302-312.	0.2	14
72	The Î²-domain of cluster 2b streptokinase is a major determinant for the regulation of its plasminogen activation activity by cellular plasminogen receptors. Biochemical and Biophysical Research Communications, 2014, 444, 595-598.	1.0	14

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73	Contributions of different modules of the plasminogen-binding Streptococcus pyogenes M-protein that mediate its functional dimerization. Journal of Structural Biology, 2018, 204, 151-164.	1.3	14
74	Role of the Strictly Conserved Tryptophan-25 Residue in the Stabilization of the Structure and in the Ligand Binding Properties of the Kringle 2 Domain of Tissue-Type Plasminogen Activator. Biochemistry, 1994, 33, 1340-1344.	1.2	13
75	Conformationally organized lysine isosteres in Streptococcus pyogenes M protein mediate direct high-affinity binding to human plasminogen. Journal of Biological Chemistry, 2017, 292, 15016-15027.	1.6	13
76	A deficiency of the GluN2C subunit of the N-methyl-D-aspartate receptor is neuroprotective in a mouse model of ischemic stroke. Biochemical and Biophysical Research Communications, 2018, 495, 136-144.	1.0	13
77	Nucleotide Structure and Characterization of the Murine Blood Coagulation Factor VII Gene. Thrombosis and Haemostasis, 1996, 76, 0957-0964.	1.8	12
78	The importance of the hydrophobic components of the binding energies in the interaction of Ï‰â€•amino acid ligands with isolated kringle polypeptide domains of human plasminogen. International Journal of Peptide and Protein Research, 1995, 46, 464-470.	0.1	11
79	In situ metabolite and lipid analysis of GluN2Dâˆ’/âˆ’ and wild-type mice after ischemic stroke using MALDI MSI. Analytical and Bioanalytical Chemistry, 2020, 412, 6275-6285.	1.9	11
80	Activation of Human Plasminogen by Staphylokinase. Direct Evidence That Preformed Plasmin Is Necessary for Activation to Occur. Blood, 1997, 89, 1585-1589.	0.6	11
81	Highly conserved residue arginine-15 is required for the Ca2+-dependent properties of the Î³-carboxyglutamic acid domain of human anticoagulation Protein C and activated Protein C. Biochemical Journal, 1997, 322, 309-315.	1.7	10
82	Ca2+-induced self-assembly in designed peptides with optimally spaced gamma-carboxyglutamic acid residues. Journal of Inorganic Biochemistry, 2011, 105, 52-57.	1.5	10
83	Opposing action of conantokin-G on synaptically and extrasynaptically-activated NMDA receptors. Neuropharmacology, 2012, 62, 2227-2238.	2.0	10
84	An accompanying genetic severe deficiency of tissue factor protects mice with a protein C deficiency from lethal endotoxemia. Blood, 2011, 117, 283-289.	0.6	9
85	Non-invasive Imaging and Analysis of Cerebral Ischemia in Living Rats Using Positron Emission Tomography with ¹⁸F-FDG. Journal of Visualized Experiments, 2014, , .	0.2	9
86	Characterization of Atherosclerosis Formation in a Murine Model of Type IIa Human Familial Hypercholesterolemia. BioMed Research International, 2018, 2018, 1-17.	0.9	9
87	Structure and Function Characterization of the a1a2 Motifs of Streptococcus pyogenes M Protein in Human Plasminogen Binding. Journal of Molecular Biology, 2019, 431, 3804-3813.	2.0	9
88	Abnormal Whole Blood Thrombi in Humans with Inherited Platelet Receptor Defects. PLoS ONE, 2012, 7, e52878.	1.1	9
89	Increased expression of NR2A subunit does not alter NMDA-evoked responses in cultured fetal trisomy 16 mouse hippocampal neurons. Journal of Neurochemistry, 2001, 76, 1663-1669.	2.1	8
90	Hydroxyproline-induced Helical Disruption in Conantokin Rl-B Affects Subunit-selective Antagonistic Activities toward Ion Channels of N-Methyl-d-aspartate Receptors. Journal of Biological Chemistry, 2015, 290, 18156-18172.	1.6	8

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91	Solution structural model of the complex of the binding regions of human plasminogen with its M-protein receptor from Streptococcus pyogenes. Journal of Structural Biology, 2019, 208, 18-29.	1.3	8
92	Î³-Glutamate and Î²â€"Hydroxyaspartate in Proteins. , 2008, 446, 85-94.		8
93	Properties of a Recombinant Chimeric Protein in which the gamma-Carboxyglutamic Acid and Helical Stack Domains of Human Anticoagulant Protein C Are Replaced by those of Human Coagulation Factor VII. Thrombosis and Haemostasis, 1997, 77, 0926-0933.	1.8	8
94	Synthetic conantokin peptides potently inhibit Nâ€methylâ€Dâ€aspartate receptorâ€mediated currents of retinal ganglion cells. Journal of Neuroscience Research, 2014, 92, 1767-1774.	1.3	7
95	Probing NMDA receptor GluN2A and GluN2B subunit expression and distribution in cortical neurons. Neuropharmacology, 2014, 79, 542-549.	2.0	7
96	The entire Î³â€carboxyglutamic acidâ€and helical stackâ€domains of human coagulation factor IX are required for optimal binding to its endothelial cell receptor. International Journal of Peptide and Protein Research, 1996, 48, 281-285.	0.1	6
97	The M Protein of Streptococcus pyogenes Strain AP53 Retains Cell Surface Functional Plasminogen Binding after Inactivation of the Sortase A Gene. Journal of Bacteriology, 2020, 202, .	1.0	6
98	Functional Consequences of Mutations in Amino Acid Residues that Stabilize Calcium Binding to the First Epidermal Growth Factor Homology Domain of Human Protein C. Thrombosis and Haemostasis, 1996, 76, 720-728.	1.8	6
99	Novel genomic rearrangements mediated by multiple genetic elements in Streptococcus pyogenes M23ND confer potential for evolutionary persistence. Microbiology (United Kingdom), 2016, 162, 1346-1359.	0.7	6
100	Protective Effect of Activated Protein C in Murine Endotoxemia: Mechanism of Action.. Blood, 2005, 106, 26-26.	0.6	6
101	Plasminogen Deficiency Significantly Reduces Vascular Wall Disease in a Murine Model of Type IIa Hypercholesterolemia. Biomedicines, 2021, 9, 1832.	1.4	6
102	Streptococcus co-opts a conformational lock in human plasminogen to facilitate streptokinase cleavage and bacterial virulence. Journal of Biological Chemistry, 2021, 296, 100099.	1.6	5
103	Antagonist Properties of Conus parius Peptides on N-Methyl-D-Aspartate Receptors and Their Effects on CREB Signaling. PLoS ONE, 2013, 8, e81405.	1.1	5
104	Focal arterial inflammation is augmented in mice with a deficiency of the protein C gene. Thrombosis and Haemostasis, 2006, 96, 794-801.	1.8	5
105	The crystal structure of the calcium-bound con-G[Q6A] peptide reveals a novel metal-dependent helical trimer. Journal of Biological Inorganic Chemistry, 2011, 16, 257-266.	1.1	4
106	A unique combination of glycoside hydrolases in Streptococcus suis specifically and sequentially acts on host-derived Î±Gal-epitope glycans. Journal of Biological Chemistry, 2020, 295, 10638-10652.	1.6	4
107	A local Î±-helix drives structural evolution of streptococcal M-protein affinity for host human plasminogen. Biochemical Journal, 2020, 477, 1613-1630.	1.7	4
108	Discerning the Role of the Hydroxyproline Residue in the Structure of Conantokin Rl-B and Its Role in GluN2B Subunit-Selective Antagonistic Activity toward <i>N</i>-Methyl-<scp>d</scp>-Aspartate Receptors. Biochemistry, 2016, 55, 7112-7122.	1.2	3

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109	Group A Streptococcus-Induced Activation of Human Plasminogen Is Required for Keratinocyte Wound Retraction and Rapid Clot Dissolution. Frontiers in Cardiovascular Medicine, 2021, 8, 667554.	1.1	3
110	Relationships Between Plasminogen-Binding M-Protein and Surface Enolase for Human Plasminogen Acquisition and Activation in Streptococcus pyogenes. Frontiers in Microbiology, 2022, 13, .	1.5	3
111	Characterizing the role of tissue-type plasminogen activator in a mouse model of Group A streptococcal infection. Microbes and Infection, 2019, 21, 412-417.	1.0	2
112	Use of Phospholipid Bilayers and Monolayers in Binding Studies of Vitamin K-Dependent Blood Coagulation Proteins. , 2002, 199, 233-244.		1
113	Draft Genome Sequences of Six Skin Isolates of Streptococcus pyogenes. Genome Announcements, 2018, 6, .	0.8	1
114	Binding of the kringleâ€2 domain of human plasminogen to streptococcal PAMâ€type Mâ€protein causes dissociation of PAM dimers. MicrobiologyOpen, 2021, 10, e1252.	1.2	1
115	Î³-Glutamate and Î²-Hydroxyaspartate in Proteins. , 2002, 194, 259-268.		0
116	Recombinant Human Activated Protein C Suppresses Endotoxin Induced Hypotension in Mice Deficient of the Endothelial Protein C Receptor (EPCR).. Blood, 2005, 106, 3696-3696.	0.6	0
117	Plasminogen Activator Inhibitor 1 Deficiency Reduces the Progression of Atherosclerosis in a Murine Model of Human Familial Hypercholesterolemia.. Blood, 2006, 108, 1804-1804.	0.6	0
118	Performance of Murine Soluble Thrombomodulin (rmsTM) in a Murine Model of Endotoxin-Induced Sepsis.. Blood, 2006, 108, 3933-3933.	0.6	0
119	The Propeptides of Human Protein C, Factor VII, and Factor IX Are Exchangeable with Regard to Directing Gamma-Carboxylation of these Proteins. Thrombosis and Haemostasis, 1996, 76, 205-207.	1.8	0
120	Structural and Functional Properties of Nâ€Methylâ€Dâ€Aspartate Receptorâ€Specific ConRlB. FASEB Journal, 2015, 29, 570.13.	0.2	0
121	Evolution of Streptococcus pyogenes has maximized the efficiency of the Sortase A cleavage motif for cell wall transpeptidation. Journal of Biological Chemistry, 2022, , 101940.	1.6	0