Bruce Beutler

List of Publications by Year
in descending order

133 papers	19,332 citations	53794 45 h-index	15266 126 g-index
138 all docs	138 docs citations	138 times ranked	23956 citing authors

#	Article	IF	Citations
1	Defective LPS Signaling in C3H/HeJ and C57BL/10ScCr Mice: Mutations in Tlr4 Gene. Science, 1998, 282, 2085-2088.	12.6	6,776
2	Inferences, questions and possibilities in Toll-like receptor signalling. Nature, 2004, 430, 257-263.	27.8	1,366
3	Intracellular Toll-like Receptors. Immunity, 2010, 32, 305-315.	14.3	1,173
4	The Unc93b1 mutation 3d disrupts exogenous antigen presentation and signaling via Toll-like receptors 3, 7 and 9. Nature Immunology, 2006, 7, 156-164.	14.5	714
5	GENETIC ANALYSIS OF HOST RESISTANCE: Toll-Like Receptor Signaling and Immunity at Large. Annual Review of Immunology, 2006, 24, 353-389.	21.8	713
6	Herpes Simplex Virus Encephalitis in Human UNC-93B Deficiency. Science, 2006, 314, 308-312.	12.6	674
7	The evolution and genetics of innate immunity. Nature Reviews Genetics, 2001, 2, 256-267.	16.3	550
8	NLRP3 activation and mitosis are mutually exclusive events coordinated by NEK7, a new inflammasome component. Nature Immunology, 2016, 17, 250-258.	14.5	532
9	The Serine Protease TMPRSS6 Is Required to Sense Iron Deficiency. Science, 2008, 320, 1088-1092.	12.6	517
10	Unraveling function in the TNF ligand and receptor families. Science, 1994, 264, 667-668.	12.6	419
11	The interaction between the ER membrane protein UNC93B and TLR3, 7, and 9 is crucial for TLR signaling. Journal of Cell Biology, 2007, 177, 265-275.	5.2	392
12	K + Efflux-Independent NLRP3 Inflammasome Activation by Small Molecules Targeting Mitochondria. Immunity, 2016, 45, 761-773.	14.3	364
13	Recognition of Hyaluronan Released in Sterile Injury Involves a Unique Receptor Complex Dependent on Toll-like Receptor 4, CD44, and MD-2. Journal of Biological Chemistry, 2007, 282, 18265-18275.	3.4	345
14	Microbe sensing, positive feedback loops, and the pathogenesis of inflammatory diseases. Immunological Reviews, 2009, 227, 248-263.	6.0	231
15	Comparison of predicted and actual consequences of missense mutations. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E5189-98.	7.1	200
16	Slc15a4, AP-3, and Hermansky-Pudlak syndrome proteins are required for Toll-like receptor signaling in plasmacytoid dendritic cells. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19973-19978.	7.1	183
17	Genetic analysis of resistance to viral infection. Nature Reviews Immunology, 2007, 7, 753-766.	22.7	172
18	Vesicular stomatitis virus glycoprotein G activates a specific antiviral Toll-like receptor 4-dependent pathway. Virology, 2007, 362, 304-313.	2.4	168

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19	MyD88 signaling in nonhematopoietic cells protects mice against induced colitis by regulating specific EGF receptor ligands. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19967-19972.	7.1	134
20	Enhanced sensitivity to DSS colitis caused by a hypomorphic Mbtps1 mutation disrupting the ATF6-driven unfolded protein response. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 3300-3305.	7.1	123
21	Excess of Rare Amino Acid Polymorphisms in the Toll-like Receptor 4 in Humans. Genetics, 2001, 158, 1657-1664.	2.9	120
22	TLR4/MD-2 activation by a synthetic agonist with no similarity to LPS. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E884-93.	7.1	115
23	Essential requirement for IRF8 and SLC15A4 implicates plasmacytoid dendritic cells in the pathogenesis of lupus. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2940-2945.	7.1	114
24	MAVS, cGAS, and endogenous retroviruses in T-independent B cell responses. Science, 2014, 346, 1486-1492.	12.6	105
25	A forward genetic screen reveals roles for Nfkbid , Zeb1 , and Ruvbl2 in humoral immunity. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 12286-12293.	7.1	104
26	Tumour predisposition and cancer syndromes as models to study geneâ€“environment interactions. Nature Reviews Cancer, 2020, 20, 533-549.	28.4	93
27	Efficient T Cell Activation via a Toll-Interleukin 1 Receptor-Independent Pathway. Immunity, 2006, 24, 787-799.	14.3	91
28	INNATEIMMUNERESPONSES TOMICROBIALPOISONS: Discovery and Function of the Toll-Like Receptors. Annual Review of Pharmacology and Toxicology, 2003, 43, 609-628.	9.4	82
29	IL-33 signaling contributes to the pathogenesis of myeloproliferative neoplasms. Journal of Clinical Investigation, 2015, 125, 2579-2591.	8.2	80
30	An Slfn2 mutation causes lymphoid and myeloid immunodeficiency due to loss of immune cell quiescence. Nature Immunology, 2010, 11, 335-343.	14.5	78
31	Adjuvant effect of the novel TLR1/TLR2 agonist Diprovocim synergizes with antiâ€“PD-L1 to eliminate melanoma in mice. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E8698-E8706.	7.1	77
32	Real-time resolution of point mutations that cause phenovariance in mice. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E440-9.	7.1	75
33	Large-scale forward genetics screening identifies Trpa1 as a chemosensor for predator odor-evoked innate fear behaviors. Nature Communications, 2018, 9, 2041.	12.8	71
34	Human Adaptive Immunity Rescues an Inborn Error of Innate Immunity. Cell, 2017, 168, 789-800.e10.	28.9	68
35	Cell cycle progression dictates the requirement for BCL2 in natural killer cell survival. Journal of Experimental Medicine, 2017, 214, 491-510.	8.5	66
36	LPS, dsRNA and the interferon bridge to adaptive immune responses: Trif, Tram, and other TIR adaptor proteins. Journal of Endotoxin Research, 2004, 10, 130-136.	2.5	61

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37	Neoâ€ligands for innate immune receptors and the etiology of sterile inflammatory disease. Immunological Reviews, 2007, 220, 113-128.	6.0	60
38	Intracellular Nucleic Acid Sensors and Autoimmunity. Journal of Interferon and Cytokine Research, 2011, 31, 867-886.	1.2	58
39	Going Forward with Genetics. American Journal of Pathology, 2013, 182, 1462-1473.	3.8	57
40	Rapid Identification of a Disease Allele in Mouse Through Whole Genome Sequencing and Bulk Segregation Analysis. Genetics, 2011, 187, 633-641.	2.9	56
41	Creatine maintains intestinal homeostasis and protects against colitis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E1273-E1281.	7.1	56
42	Structural Basis of TLR2/TLR1 Activation by the Synthetic Agonist Diprovocim. Journal of Medicinal Chemistry, 2019, 62, 2938-2949.	6.4	53
43	Analysis of the MCMV resistome by ENU mutagenesis. Mammalian Genome, 2006, 17, 398-406.	2.2	51
44	B-1a transitional cells are phenotypically distinct and are lacking in mice deficient in IÎºBNS. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E4119-26.	7.1	51
45	IgD class switching is initiated by microbiota and limited to mucosa-associated lymphoid tissue in mice. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E1196-E1204.	7.1	50
46	Genetic dissection of innate immunity to infection: the mouse cytomegalovirus model. Current Opinion in Immunology, 2005, 17, 36-43.	5.5	49
47	ENU Mutagenesis in Mice. , 2008, 415, 1-16.		49
48	ENU-induced phenovariance in mice: inferences from 587 mutations. BMC Research Notes, 2012, 5, 577.	1.4	46
49	Science review: key inflammatory and stress pathways in critical illness - the central role of the Toll-like receptors. Critical Care, 2002, 7, 39.	5.8	45
50	Emerging roles of spliceosome in cancer and immunity. Protein and Cell, 2022, 13, 559-579.	11.0	45
51	Unlocking the Bottleneck in Forward Genetics Using Whole-Genome Sequencing and Identity by Descent to Isolate Causative Mutations. PLoS Genetics, 2013, 9, e1003219.	3.5	44
52	Probability of phenotypically detectable protein damage by ENU-induced mutations in the Mutagenetix database. Nature Communications, 2018, 9, 441.	12.8	43
53	SLFN2 protection of tRNAs from stress-induced cleavage is essential for T cellâ€“mediated immunity. Science, 2021, 372, .	12.6	43
54	Precis on forward genetics in mice. Nature Immunology, 2007, 8, 659-664.	14.5	42

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55	Platelet-activating factor (PAF) mediates NLRP3-NEK7 inflammasome induction independently of PAFR. Journal of Experimental Medicine, 2019, 216, 2838-2853.	8.5	41
56	LMBR1L regulates lymphopoiesis through Wnt/Î²-catenin signaling. Science, 2019, 364, .	12.6	41
57	Not â€œMolecular Patternsâ€•but Molecules. Immunity, 2003, 19, 155-156.	14.3	40
58	Excessive endosomal TLR signaling causes inflammatory disease in mice with defective SMCR8-WDR41-C9ORF72 complex function. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11523-E11531.	7.1	40
59	Mutation of Fnip1 is associated with B-cell deficiency, cardiomyopathy, and elevated AMPK activity. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E3706-15.	7.1	39
60	RNA and Imidazoquinolines Are Sensed by Distinct TLR7/8 Ectodomain Sites Resulting in Functionally Disparate Signaling Events. Journal of Immunology, 2014, 192, 5963-5973.	0.8	38
61	SHIP, TGF-Î², and Endotoxin Tolerance. Immunity, 2004, 21, 134-135.	14.3	37
62	Diprovocims: A New and Exceptionally Potent Class of Toll-like Receptor Agonists. Journal of the American Chemical Society, 2018, 140, 14440-14454.	13.7	35
63	Genetic Analysis of Innate Immunity: Identification and Function of the TIR Adapter Proteins. , 2005, 560, 29-39.		34
64	Structural modeling defines transmembrane residues in ADAM17 that are crucial for Rhbdf2/ADAM17-dependent proteolysis. Journal of Cell Science, 2017, 130, 868-878.	2.0	34
65	Yip1 domain family, member 6 (Yipf6) mutation induces spontaneous intestinal inflammation in mice. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 12650-12655.	7.1	33
66	Reconstruction of the Mouse Inflammasome System in HEK293T Cells. Bio-protocol, 2016, 6, .	0.4	33
67	Increased Susceptibility to DNA Virus Infection in Mice with a GCN2 Mutation. Journal of Virology, 2012, 86, 1802-1808.	3.4	31
68	Insulin resistance and diabetes caused by genetic or diet-induced KBTBD2 deficiency in mice. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E6418-E6426.	7.1	31
69	Bulk Segregation Mapping of Mutations in Closely Related Strains of Mice. Genetics, 2010, 186, 1139-1146.	2.9	30
70	Discovery and Structureâ€“Activity Relationships of the Neoseptins: A New Class of Toll-like Receptor-4 (TLR4) Agonists. Journal of Medicinal Chemistry, 2016, 59, 4812-4830.	6.4	30
71	The Tpl2 Mutation Sluggish Impairs Type I IFN Production and Increases Susceptibility to Group B Streptococcal Disease. Journal of Immunology, 2009, 183, 7975-7983.	0.8	29
72	Toll-like receptors and their place in immunology. Nature Reviews Immunology, 2004, 4, 498-498.	22.7	28

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73	Current strategies for mutation detection in phenotype-driven screens utilising next generation sequencing. Mammalian Genome, 2015, 26, 486-500.	2.2	28
74	KDM5A mutations identified in autism spectrum disorder using forward genetics. ELife, 2020, 9, .	6.0	27
75	Soluble human TLR2 ectodomain binds diacylglycerol from microbial lipopeptides and glycolipids. Innate Immunity, 2015, 21, 175-193.	2.4	25
76	The ESRP1-GPR137 axis contributes to intestinal pathogenesis. ELife, 2017, 6, .	6.0	24
77	YIPF6 controls sorting of FGF21 into COPII vesicles and promotes obesity. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15184-15193.	7.1	24
78	Sulfatides are endogenous ligands for the TLR4â€“MD-2 complex. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	24
79	The solute carrier SLC15A4 is required for optimal trafficking of nucleic acidâ€“sensing TLRs and ligands to endolysosomes. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2200544119.	7.1	24
80	HCFC2 is needed for IRF1- and IRF2-dependent Tlr3 transcription and for survival during viral infections. Journal of Experimental Medicine, 2017, 214, 3263-3277.	8.5	23
81	N4BP1 negatively regulates NF-Î¹B by binding and inhibiting NEMO oligomerization. Nature Communications, 2021, 12, 1379.	12.8	21
82	Hypomorphic Mutation in the Site-1 Protease Mbtps1 Endows Resistance to Persistent Viral Infection in a Cell-Specific Manner. Cell Host and Microbe, 2011, 9, 212-222.	11.0	20
83	Lps2and Signal Transduction in Sepsis: At the Intersection of Host Responses to Bacteria and Viruses. Scandinavian Journal of Infectious Diseases, 2003, 35, 563-567.	1.5	18
84	From Phenomenon to Phenotype and from Phenotype to Gene: Forward Genetics and the Problem of Sepsis. Journal of Infectious Diseases, 2003, 187, S321-S326.	4.0	17
85	A viable hypomorphic Arnt2 mutation causes hyperphagic obesity, diabetes and hepatic steatosis. DMM Disease Models and Mechanisms, 2018, 11, .	2.4	17
86	LPS in microbial pathogenesis: promise and fulfilment. Journal of Endotoxin Research, 2002, 8, 329-335.	2.5	16
87	Toll we meet again . . .. Nature Immunology, 2001, 2, 9-10.	14.5	15
88	The Role ofVldlrin Intraretinal Angiogenesis in Mice. , 2011, 52, 6572.		15
89	Skin-specific regulation of SREBP processing and lipid biosynthesis by glycerol kinase 5. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5197-E5206.	7.1	15
90	Sox17 Regulates Liver Lipid Metabolism and Adaptation to Fasting. PLoS ONE, 2014, 9, e104925.	2.5	15

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91	Slc15a4 function is required for intact class switch recombination to IgG2c in response to TLR9 stimulation. Immunology and Cell Biology, 2015, 93, 136-146.	2.3	14
92	Induction of Systemic Autoimmunity by a Xenobiotic Requires Endosomal TLR Trafficking and Signaling from the Late Endosome and Endolysosome but Not Type I IFN. Journal of Immunology, 2017, 199, 3739-3747.	0.8	13
93	Enhanced susceptibility to chemically induced colitis caused by excessive endosomal TLR signaling in LRBA-deficient mice. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11380-11389.	7.1	13
94	Essential requirement for nicastrin in marginal zone and B-1 B cell development. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4894-4901.	7.1	13
95	Calcium flux control by Pacs1â€Wdr37 promotes lymphocyte quiescence and lymphoproliferative diseases. EMBO Journal, 2021, 40, e104888.	7.8	13
96	The class I myosin MYO1D binds to lipid and protects against colitis. DMM Disease Models and Mechanisms, 2018, 11, .	2.4	12
97	Essential cell-extrinsic requirement for PDIA6 in lymphoid and myeloid development. Journal of Experimental Medicine, 2020, 217, .	8.5	12
98	Mutual inhibition between Prkd2 and Bcl6 controls T follicular helper cell differentiation. Science Immunology, 2020, 5, .	11.9	12
99	Mutation of the ER retention receptor KDELR1 leads to cell-intrinsic lymphopenia and a failure to control chronic viral infection. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E5706-14.	7.1	11
100	Forward genetic analysis using OCT screening identifies Sfxn3 mutations leading to progressive outer retinal degeneration in mice. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12931-12942.	7.1	11
101	Inhibiting TLR9 and other UNC93B1-dependent TLRs paradoxically increases accumulation of MYD88L265P plasmablasts in vivo. Blood, 2016, 128, 1604-1608.	1.4	10
102	Genetic and structural studies of RABL3 reveal an essential role in lymphoid development and function. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 8563-8572.	7.1	10
103	Heterozygous Mutation in ÎºBNS Leads to Reduced Levels of Natural IgM Antibodies and Impaired Responses to T-Independent Type 2 Antigens. Frontiers in Immunology, 2016, 7, 65.	4.8	9
104	Biallelic loss of function variant in the unfolded protein response gene PDIA6 is associated with asphyxiating thoracic dystrophy and neonatalâ€onset diabetes. Clinical Genetics, 2021, 99, 694-703.	2.0	9
105	How host defense is encoded in the mammalian genome. Mammalian Genome, 2011, 22, 1-5.	2.2	8
106	Hypopigmentation and Maternal-Zygotic Embryonic Lethality Caused by a Hypomorphic Mbtps1 Mutation in Mice. G3: Genes, Genomes, Genetics, 2012, 2, 499-504.	1.8	8
107	Creating diseases to understand what prevents them: genetic analysis of inflammation in the gastrointestinal tract. Current Opinion in Immunology, 2012, 24, 678-685.	5.5	8
108	Altered Marginal Zone B Cell Selection in the Absence of ÎºBNS. Journal of Immunology, 2018, 200, 775-787.	0.8	8

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109	Identification of a Novel Toll-Like Receptor-Independent Immunoadjuvant Pathway That Depends upon Programmed Cell Death.. Blood, 2004, 104, 775-775.	1.4	8
110	Loss of immunity-related GTPase GM4951 leads to nonalcoholic fatty liver disease without obesity. Nature Communications, 2022, 13, .	12.8	8
111	An ENU-induced splice site mutation of mouse Col1a1 causing recessive osteogenesis imperfecta and revealing a novel splicing rescue. Scientific Reports, 2017, 7, 11717.	3.3	7
112	B-1a Cell Development in Splenectomized Neonatal Mice. Frontiers in Immunology, 2018, 9, 1738.	4.8	7
113	Syndromic immune disorder caused by a viable hypomorphic allele of spliceosome component Snrnp40. Nature Immunology, 2019, 20, 1322-1334.	14.5	7
114	Adenosine monophosphate deaminase 3 null mutation causes reduction of naive T cells in mouse peripheral blood. Blood Advances, 2020, 4, 3594-3605.	5.2	7
115	Dominant atopy risk mutations identified by mouse forward genetic analysis. Allergy: European Journal of Allergy and Clinical Immunology, 2021, 76, 1095-1108.	5.7	7
116	Thousands of induced germline mutations affecting immune cells identified by automated meiotic mapping coupled with machine learning. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	7
117	Innate immunity and the new forward genetics. Best Practice and Research in Clinical Haematology, 2016, 29, 379-387.	1.7	6
118	Genetic analysis of host responses in sepsis. Current Infectious Disease Reports, 2001, 3, 419-426.	3.0	5
119	Tissue-specific disruption of Kbtbd2 uncovers adipocyte-intrinsic and -extrinsic features of the teeny lipodystrophy syndrome. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 11829-11835.	7.1	5
120	Germline Saturation Mutagenesis Induces Skeletal Phenotypes in Mice. Journal of Bone and Mineral Research, 2020, 36, 1548-1565.	2.8	5
121	Ernest Beutler (1928-2008). Haematologica, 2009, 94, 154-156.	3.5	4
122	RNPS1 inhibits excessive tumor necrosis factor/tumor necrosis factor receptor signaling to support hematopoiesis in mice. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2200128119.	7.1	4
123	De novo germline mutation in the dual specificity phosphatase 10 gene accelerates autoimmune diabetes. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	3
124	Research Techniques Made Simple: Forward Genetic Screening to Uncover Genes Involved in Skin Biology. Journal of Investigative Dermatology, 2019, 139, 1848-1853.e1.	0.7	2
125	The Mask Mutation Identifies TMPRSS6 as an Essential Suppressor of Hepcidin Gene Expression, Required for Normal Uptake of Dietary Iron.. Blood, 2007, 110, 3-3.	1.4	2
126	Next-Generation Diprovocims with Potent Human and Murine TLR1/TLR2 Agonist Activity That Activate the Innate and Adaptive Immune Response. Journal of Medicinal Chemistry, 2022, 65, 9230-9252.	6.4	2

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127	Finding New Components of the Mammalian Immune System. Rambam Maimonides Medical Journal, 2016, 7, e0018.	1.0	1
128	Genetic Analysis of Host Responses in Sepsis. Current Infectious Disease Reports, 2001, 3, 419-426.	3.0	1
129	Modulation of autoimmune diabetes by ENU-induced mutations in non-obese diabetic mice. DMM Disease Models and Mechanisms, 2022, , .	2.4	1
130	Estimation of Physical Distance in the Genome through Probabilistic Analysis of Marker Density and Yeast Artificial Chromosome (YAC) Size. Biometrical Journal, 1999, 41, 251-257.	1.0	0
131	Fighting Malaria: Mosquitoes Know How. Immunity, 2006, 25, 530-531.	14.3	0
132	Genetic analysis of host responses in sepsis. Current Infectious Disease Reports, 2007, 3, 419-426.	3.0	0
133	3D, a Novel Mutation That Confers Defective Sensing by Toll-Like Receptors 3, 7 and 9.. Blood, 2004, 104, 3441-3441.	1.4	0