Christophe Benoist

List of Publications by Year
in descending order

125 papers	31,413 citations	7096 78 h-index	14759 127 g-index
132 all docs	132 docs citations	132 times ranked	35622 citing authors

#	Article	IF	Citations
1	Projection of an Immunological Self Shadow Within the Thymus by the Aire Protein. Science, 2002, 298, 1395-1401.	12.6	2,159
2	Lean, but not obese, fat is enriched for a unique population of regulatory T cells that affect metabolic parameters. Nature Medicine, 2009, 15, 930-939.	30.7	1,790
3	The Immunological Genome Project: networks of gene expression in immune cells. Nature Immunology, 2008, 9, 1091-1094.	14.5	1,576
4	The Human Cell Atlas. ELife, 2017, 6, .	6.0	1,547
5	FOXP3 Controls Regulatory T Cell Function through Cooperation with NFAT. Cell, 2006, 126, 375-387.	28.9	1,019
6	A Special Population of Regulatory T Cells Potentiates Muscle Repair. Cell, 2013, 155, 1282-1295.	28.9	954
7	PPAR-Î³ is a major driver of the accumulation and phenotype of adipose tissue Treg cells. Nature, 2012, 486, 549-553.	27.8	945
8	Mice lacking MHC class II molecules. Cell, 1991, 66, 1051-1066.	28.9	876
9	Organ-Specific Disease Provoked by Systemic Autoimmunity. Cell, 1996, 87, 811-822.	28.9	828
10	Î²-Cell death during progression to diabetes. Nature, 2001, 414, 792-798.	27.8	805
11	Mast Cells: A Cellular Link Between Autoantibodies and Inflammatory Arthritis. Science, 2002, 297, 1689-1692.	12.6	722
12	Individual intestinal symbionts induce a distinct population of RORÎ³ ⁺ regulatory T cells. Science, 2015, 349, 993-997.	12.6	707
13	Treg Cells Expressing the Coinhibitory Molecule TIGIT Selectively Inhibit Proinflammatory Th1 and Th17 Cell Responses. Immunity, 2014, 40, 569-581.	14.3	702
14	From Systemic T Cell Self-Reactivity to Organ-Specific Autoimmune Disease via Immunoglobulins. Immunity, 1999, 10, 451-461.	14.3	646
15	Arthritis Critically Dependent on Innate Immune System Players. Immunity, 2002, 16, 157-168.	14.3	631
16	Stability of the Regulatory T Cell Lineage in Vivo. Science, 2010, 329, 1667-1671.	12.6	611
17	Microbial bile acid metabolites modulate gut RORÎ³+Âregulatory T cell homeostasis. Nature, 2020, 577, 410-415.	27.8	568
18	Foxp3 Transcription-Factor-Dependent and -Independent Regulation of the Regulatory T Cell Transcriptional Signature. Immunity, 2007, 27, 786-800.	14.3	563

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19	The Cellular Mechanism of Aire Control of T Cell Tolerance. Immunity, 2005, 23, 227-239.	14.3	559
20	Mining the Human Gut Microbiota for Immunomodulatory Organisms. Cell, 2017, 168, 928-943.e11.	28.9	554
21	Foxp3+ regulatory T cells: differentiation, specification, subphenotypes. Nature Immunology, 2009, 10, 689-695.	14.5	456
22	Tissue Tregs. Annual Review of Immunology, 2016, 34, 609-633.	21.8	442
23	Poor Repair of Skeletal Muscle in Aging Mice Reflects a Defect in Local, Interleukin-33-Dependent Accumulation of Regulatory T Cells. Immunity, 2016, 44, 355-367.	14.3	383
24	Regulatory T cells generated early in life play a distinct role in maintaining self-tolerance. Science, 2015, 348, 589-594.	12.6	373
25	Autoimmunity provoked by infection: how good is the case for T cell epitope mimicry?. Nature Immunology, 2001, 2, 797-801.	14.5	368
26	Identifying species of symbiont bacteria from the human gut that, alone, can induce intestinal Th17 cells in mice. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E8141-E8150.	7.1	331
27	The cis-Regulatory Atlas of the Mouse Immune System. Cell, 2019, 176, 897-912.e20.	28.9	315
28	Single-cell gene expression reveals a landscape of regulatory T cell phenotypes shaped by the TCR. Nature Immunology, 2018, 19, 291-301.	14.5	312
29	Regulatory T cells in nonlymphoid tissues. Nature Immunology, 2013, 14, 1007-1013.	14.5	308
30	Critical Roles for Interleukin 1 and Tumor Necrosis Factor Î± in Antibody-induced Arthritis. Journal of Experimental Medicine, 2002, 196, 77-85.	8.5	307
31	Antigen- and Cytokine-Driven Accumulation of Regulatory T Cells in Visceral Adipose Tissue of Lean Mice. Cell Metabolism, 2015, 21, 543-557.	16.2	304
32	Mast cells in autoimmune disease. Nature, 2002, 420, 875-878.	27.8	274
33	Parsing the Interferon Transcriptional Network and Its Disease Associations. Cell, 2016, 164, 564-578.	28.9	250
34	A multiply redundant genetic switch 'locks in' the transcriptional signature of regulatory T cells. Nature Immunology, 2012, 13, 972-980.	14.5	249
35	Intersection of population variation and autoimmunity genetics in human T cell activation. Science, 2014, 345, 1254665.	12.6	218
36	How Punctual Ablation of Regulatory T Cells Unleashes an Autoimmune Lesion within the Pancreatic Islets. Immunity, 2009, 31, 654-664.	14.3	212

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37	The role of CD8+ T cells in the initiation of insulin-dependent diabetes mellitus. European Journal of Immunology, 1996, 26, 1762-1769.	2.9	206
38	Modifier loci condition autoimmunity provoked by Aire deficiency. Journal of Experimental Medicine, 2005, 202, 805-815.	8.5	206
39	Genomic definition of multiple ex vivo regulatory T cell subphenotypes. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 5919-5924.	7.1	204
40	Aire unleashes stalled RNA polymerase to induce ectopic gene expression in thymic epithelial cells. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 535-540.	7.1	202
41	Major histocompatibility complex class I molecules are required for the development of insulitis in non-obese diabetic mice. European Journal of Immunology, 1993, 23, 3358-3360.	2.9	199
42	Aire controls gene expression in the thymic epithelium with ordered stochasticity. Nature Immunology, 2015, 16, 942-949.	14.5	195
43	Genetic Inversion in Mast Cell-Deficient Wsh Mice Interrupts Corin and Manifests as Hematopoietic and Cardiac Aberrancy. American Journal of Pathology, 2008, 173, 1693-1701.	3.8	191
44	An Intestinal Organ Culture System Uncovers a Role for the Nervous System in Microbe-Immune Crosstalk. Cell, 2017, 168, 1135-1148.e12.	28.9	182
45	Particularities of the vasculature can promote the organ specificity of autoimmune attack. Nature Immunology, 2006, 7, 284-292.	14.5	171
46	Adaptation of TCR Repertoires to Self-Peptides in Regulatory and Nonregulatory CD4+ T Cells. Journal of Immunology, 2007, 178, 7032-7041.	0.8	171
47	Distinct immunocyte-promoting and adipocyte-generating stromal components coordinate adipose tissue immune and metabolic tenors. Science Immunology, 2019, 4, .	11.9	169
48	Mast cells contribute to initiation of autoantibody-mediated arthritis via IL-1. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 2325-2330.	7.1	168
49	TCR Transgenic Mice Reveal Stepwise, Multi-site Acquisition of the Distinctive Fat-Treg Phenotype. Cell, 2018, 174, 285-299.e12.	28.9	165
50	Appearance and disappearance of the mRNA signature characteristic of T _{reg} cells in visceral adipose tissue: Age, diet, and PPARÎ³ effects. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 482-487.	7.1	156
51	Endoscopic photoconversion reveals unexpectedly broad leukocyte trafficking to and from the gut. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6696-6701.	7.1	154
52	Neonatal tolerance revisited: a perinatal window for Aire control of autoimmunity. Journal of Experimental Medicine, 2009, 206, 1245-1252.	8.5	148
53	Flicr , a long noncoding RNA, modulates Foxp3 expression and autoimmunity. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E3472-E3480.	7.1	141
54	Structure of a Domain-Swapped FOXP3 Dimer on DNA and Its Function in Regulatory T Cells. Immunity, 2011, 34, 479-491.	14.3	140

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55	Genetic determinants of co-accessible chromatin regions in activated T cells across humans. Nature Genetics, 2018, 50, 1140-1150.	21.4	139
56	The immune system's involvement in obesity-driven type 2 diabetes. Seminars in Immunology, 2012, 24, 436-442.	5.6	137
57	The transcriptional regulator Aire binds to and activates super-enhancers. Nature Immunology, 2017, 18, 263-273.	14.5	130
58	Noninvasive mapping of pancreatic inflammation in recent-onset type-1 diabetes patients. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2139-2144.	7.1	123
59	Molecular diversification of regulatory T cells in nonlymphoid tissues. Science Immunology, 2018, 3, .	11.9	123
60	Regulatory T cells control NK cells in an insulitic lesion by depriving them of IL-2. Journal of Experimental Medicine, 2013, 210, 1153-1165.	8.5	120
61	Different molecular complexes that mediate transcriptional induction and repression by FoxP3. Nature Immunology, 2017, 18, 1238-1248.	14.5	117
62	Gut CD4+ T cell phenotypes are a continuum molded by microbes, not by TH archetypes. Nature Immunology, 2021, 22, 216-228.	14.5	116
63	T _{reg} cells limit IFN-Î³ production to control macrophage accrual and phenotype during skeletal muscle regeneration. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E2585-E2593.	7.1	114
64	Interindividual variation in human T regulatory cells. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1111-20.	7.1	112
65	An Immunologic Mode of Multigenerational Transmission Governs a Gut Treg Setpoint. Cell, 2020, 181, 1276-1290.e13.	28.9	110
66	Treg Cells, Life History, and Diversity. Cold Spring Harbor Perspectives in Biology, 2012, 4, a007021-a007021.	5.5	109
67	Tissular Tregs: A unique population of adipose-tissue-resident Foxp3+CD4+ T cells that impacts organismal metabolism. Seminars in Immunology, 2011, 23, 431-437.	5.6	108
68	Identification and validation of a tumor-infiltrating Treg transcriptional signature conserved across species and tumor types. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E10672-E10681.	7.1	108
69	Profound Treg perturbations correlate with COVID-19 severity. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	104
70	Nuclear receptor Nr4a1 modulates both regulatory T-cell (Treg) differentiation and clonal deletion. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 3891-3896.	7.1	101
71	The Role of Antibodies in Mouse Models of Rheumatoid Arthritis, and Relevance to Human Disease. Advances in Immunology, 2004, 82, 217-248.	2.2	100
72	Early window of diabetes determinism in NOD mice, dependent on the complement receptor CRIg, identified by noninvasive imaging. Nature Immunology, 2012, 13, 361-368.	14.5	98

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73	An N-Terminal Mutation of the Foxp3 Transcription Factor Alleviates Arthritis but Exacerbates Diabetes. Immunity, 2012, 36, 731-741.	14.3	97
74	Neutrophils in a mouse model of autoantibodyâ€•mediated arthritis: Critical producers of Fc receptor Î³, the receptor for C5a, and lymphocyte functionâ˜'associated antigen 1. Arthritis and Rheumatism, 2010, 62, 753-764.	6.7	95
75	Fibroblast Growth Factor 21 (FGF21) Protects against High Fat Diet Induced Inflammation and Islet Hyperplasia in Pancreas. PLoS ONE, 2016, 11, e0148252.	2.5	90
76	Population dynamics of islet-infiltrating cells in autoimmune diabetes. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1511-1516.	7.1	89
77	Singular role for T-BET ⁺ CXCR3 ⁺ regulatory T cells in protection from autoimmune diabetes. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14103-14108.	7.1	89
78	The K/BxN Mouse Model of Inflammatory Arthritis. Methods in Molecular Medicine, 2007, 136, 269-282.	0.8	85
79	Inflammatory arthritis can be reined in by CpG-induced DCâ€“NK cell cross talk. Journal of Experimental Medicine, 2007, 204, 1911-1922.	8.5	84
80	Protective major histocompatibility complex allele prevents type 1 diabetes by shaping the intestinal microbiota early in ontogeny. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9671-9676.	7.1	75
81	Convergent and divergent effects of costimulatory molecules in conventional and regulatory CD4 ⁺ T cells. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1023-1028.	7.1	72
82	Global relevance of Aire binding to hypomethylated lysine-4 of histone-3. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 13016-13021.	7.1	69
83	Epigenetic modulation of type-1 diabetes via a dual effect on pancreatic macrophages and Î² cells. ELife, 2014, 3, e04631.	6.0	69
84	Imaging the emergence and natural progression of spontaneous autoimmune diabetes. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E7776-E7785.	7.1	64
85	Deep learning of immune cell differentiation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25655-25666.	7.1	64
86	Interleukin-6 produced by enteric neurons regulates the number and phenotype of microbe-responsive regulatory TÂcells in the gut. Immunity, 2021, 54, 499-513.e5.	14.3	63
87	Brd4 bridges the transcriptional regulators, Aire and P-TEFb, to promote elongation of peripheral-tissue antigen transcripts in thymic stromal cells. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E4448-57.	7.1	62
88	Network pharmacology of JAK inhibitors. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9852-9857.	7.1	59
89	Aire Inhibits the Generation of a Perinatal Population of Interleukin-17A-Producing Î³Î´ T Cells to Promote Immunologic Tolerance. Immunity, 2016, 45, 999-1012.	14.3	54
90	ImmVar project: Insights and design considerations for future studies of â€œhealthyâ€•immune variation. Seminars in Immunology, 2015, 27, 51-57.	5.6	53

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91	Imbalanced signal transduction in regulatory T cells expressing the transcription factor FoxP3. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14942-14947.	7.1	52
92	Single-cell mass cytometry of TCR signaling: Amplification of small initial differences results in low ERK activation in NOD mice. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16466-16471.	7.1	50
93	Developmental and cellular age direct conversion of CD4+ T cells into RORÎ³+ or Helios+ colon Treg cells. Journal of Experimental Medicine, 2020, 217, .	8.5	50
94	Interferon-Î±-producing plasmacytoid dendritic cells drive the loss of adipose tissue regulatory TÂcells during obesity. Cell Metabolism, 2021, 33, 1610-1623.e5.	16.2	48
95	A Plaidoyer for 'Systems Immunology'. Immunological Reviews, 2006, 210, 229-234.	6.0	47
96	Variation and Genetic Control of Gene Expression in Primary Immunocytes across Inbred Mouse Strains. Journal of Immunology, 2014, 193, 4485-4496.	0.8	44
97	T cell receptor specificity drives accumulation of a reparative population of regulatory T cells within acutely injured skeletal muscle. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 26727-26733.	7.1	43
98	Genomic responses to inflammation in mouse models mimic humans: We concur, apples to oranges comparisons wonâ€™t do. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E346.	7.1	41
99	Denervation protects limbs from inflammatory arthritis via an impact on the microvasculature. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 11419-11424.	7.1	40
100	A pharmacogenetic study implicates <scp>SLC9a9</scp> in multiple sclerosis disease activity. Annals of Neurology, 2015, 78, 115-127.	5.3	39
101	Consortium biology in immunology: the perspective from the Immunological Genome Project. Nature Reviews Immunology, 2012, 12, 734-740.	22.7	37
102	Fluorescent Exendin-4 Derivatives for Pancreatic Î²-Cell Analysis. Bioconjugate Chemistry, 2014, 25, 171-177.	3.6	37
103	Flow Cytometry, Amped Up. Science, 2011, 332, 677-678.	12.6	35
104	The NF-ÎºB RelA Transcription Factor Is Critical for Regulatory T Cell Activation and Stability. Frontiers in Immunology, 2019, 10, 2487.	4.8	35
105	Single-cell analysis of FOXP3 deficiencies in humans and mice unmasks intrinsic and extrinsic CD4+ T cell perturbations. Nature Immunology, 2021, 22, 607-619.	14.5	35
106	Neuronal, stromal, and T-regulatory cell crosstalk in murine skeletal muscle. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 5402-5408.	7.1	32
107	T cell anergy in perinatal mice is promoted by T reg cells and prevented by IL-33. Journal of Experimental Medicine, 2019, 216, 1328-1344.	8.5	27
108	Unstable FoxP3 ⁺ T regulatory cells in NZW mice. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1345-1350.	7.1	26

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109	FoxP3 scanning mutagenesis reveals functional variegation and mild mutations with atypical autoimmune phenotypes. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E253-E262.	7.1	22
110	Circulating C3 is necessary and sufficient for induction of autoantibodyâ€mediated arthritis in a mouse model. Arthritis and Rheumatism, 2007, 56, 2968-2974.	6.7	21
111	PPARÎ³ marks splenic precursors of multiple nonlymphoid-tissue Treg compartments. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	21
112	Discovery of surrogate agonists for visceral fat Treg cells that modulate metabolic indices in vivo. ELife, 2020, 9, .	6.0	21
113	A virus-specific monocyte inflammatory phenotype is induced by SARS-CoV-2 at the immuneâ€“epithelial interface. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	21
114	CD4+ teff cell heterogeneity: the perspective from single-cell transcriptomics. Current Opinion in Immunology, 2020, 63, 61-67.	5.5	18
115	Rapid, high efficiency isolation of pancreatic ÃŸ-cells. Scientific Reports, 2015, 5, 13681.	3.3	17
116	IL-17Aâ€“producing Î³Î´T cells promote muscle regeneration in a microbiota-dependent manner. Journal of Experimental Medicine, 2022, 219, .	8.5	17
117	The neuropeptide neuromedin U promotes autoantibody-mediated arthritis. Arthritis Research and Therapy, 2012, 14, R29.	3.5	15
118	Yes, it does. Nature Reviews Immunology, 2007, 7, 1-1.	22.7	12
119	Aire regulates chromatin looping by evicting CTCF from domain boundaries and favoring accumulation of cohesin on superenhancers. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	12
120	FoxP3 associates with enhancer-promoter loops to regulate T-specific gene expression.. Science Immunology, 2022, 7, eabj9836.	11.9	12
121	Allelic variation in class I HLA determines CD8 T cell repertoire shape and cross-reactive memory responses to SARS-CoV-2. Science Immunology, 2021, , eabk3070.	11.9	10
122	A combination of cyclophosphamide and interleukin-2 allows CD4+ T cells converted to Tregs to control scurfy syndrome. Blood, 2021, 137, 2326-2336.	1.4	9
123	The ImmGen consortium OpenSource T cell project. Nature Immunology, 2022, 23, 643-644.	14.5	3
124	Promiscuity Promotes Tolerance. Journal of Immunology, 2016, 196, 2913-2914.	0.8	1
125	O3-04-05: EXPRESSION QTL ANALYSIS FROM PRIMARY IMMUNE CELLS IDENTIFIES NOVEL REGULATORY EFFECTS UNDERLYING ALZHEIMER'S DISEASE SUSCEPTIBILITY. , 2014, 10, P216-P216.		0