

Diane Mathis

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

137
papers

27,488
citations

73
h-index

143
g-index

143
ext. papers

32,245
ext. citations

22.5
avg, IF

7.07
L-index

#	Paper	IF	Citations
137	FoxP3 associates with enhancer-promoter loops to regulate T-specific gene expression.. <i>Science Immunology</i> , 2022 , 7, eabj9836	28	0
136	PPAR γ marks splenic precursors of multiple nonlymphoid-tissue Treg compartments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	6
135	Interleukin-6 produced by enteric neurons regulates the number and phenotype of microbe-responsive regulatory T γ cells in the gut. <i>Immunity</i> , 2021 , 54, 499-513.e5	32.3	19
134	Tissue regulatory T cells: regulatory chameleons. <i>Nature Reviews Immunology</i> , 2021 , 21, 597-611	36.5	16
133	Single-cell analysis of FOXP3 deficiencies in humans and mice unmasks intrinsic and extrinsic CD4 T cell perturbations. <i>Nature Immunology</i> , 2021 , 22, 607-619	19.1	6
132	Gut CD4 T cell phenotypes are a continuum molded by microbes, not by T archetypes. <i>Nature Immunology</i> , 2021 , 22, 216-228	19.1	34
131	Interferon- β -producing plasmacytoid dendritic cells drive the loss of adipose tissue regulatory T γ cells during obesity. <i>Cell Metabolism</i> , 2021 , 33, 1610-1623.e5	24.6	9
130	Profound Treg perturbations correlate with COVID-19 severity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	24
129	Aire regulates chromatin looping by evicting CTCF from domain boundaries and favoring accumulation of cohesin on superenhancers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	3
128	An Immunologic Mode of Multigenerational Transmission Governs a Gut Treg Setpoint. <i>Cell</i> , 2020 , 181, 1276-1290.e13	56.2	46
127	Visceral adipose tissue Tregs and the cells that nurture them. <i>Immunological Reviews</i> , 2020 , 295, 114-125.e13	11.3	25
126	Sex-specific adipose tissue imprinting of regulatory T cells. <i>Nature</i> , 2020 , 579, 581-585	50.4	72
125	Neuronal, stromal, and T-regulatory cell crosstalk in murine skeletal muscle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 5402-5408	11.5	14
124	Discovery of surrogate agonists for visceral fat Treg cells that modulate metabolic indices in vivo. <i>ELife</i> , 2020 , 9,	8.9	7
123	T γ cells and adipocyte IL-17RC control fat innervation and thermogenesis. <i>Nature</i> , 2020 , 578, 610-614	50.4	49
122	Profound Treg perturbations correlate with COVID-19 severity 2020 ,		11
121	Microbial bile acid metabolites modulate gut ROR γ -regulatory T cell homeostasis. <i>Nature</i> , 2020 , 577, 410-415	50.4	278

120	Developmental and cellular age direct conversion of CD4+ T cells into ROR α or Helios+ colon Treg cells. <i>Journal of Experimental Medicine</i> , 2020 , 217,	16.6	28
119	pH-Gated Succinate Secretion Regulates Muscle Remodeling in Response to Exercise. <i>Cell</i> , 2020 , 183, 62-75.e17	56.2	37
118	Organismal immunometabolism: advances in both directions. <i>Nature Reviews Immunology</i> , 2019 , 19, 83-96.	11.5	4
117	Distinct immunocyte-promoting and adipocyte-generating stromal components coordinate adipose tissue immune and metabolic tenors. <i>Science Immunology</i> , 2019 , 4,	28	98
116	T cell anergy in perinatal mice is promoted by T reg cells and prevented by IL-33. <i>Journal of Experimental Medicine</i> , 2019 , 216, 1328-1344	16.6	17
115	PAHSAs attenuate immune responses and promote T cell survival in autoimmune diabetic mice. <i>Journal of Clinical Investigation</i> , 2019 , 129, 3717-3731	15.9	28
114	T cell receptor specificity drives accumulation of a reparative population of regulatory T cells within acutely injured skeletal muscle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 ,	11.5	18
113	Methods of Isolation and Analysis of TREG Immune Infiltrates from Injured and Dystrophic Skeletal Muscle. <i>Methods in Molecular Biology</i> , 2019 , 1899, 229-237	1.4	0
112	T cells limit IFN- γ production to control macrophage accrual and phenotype during skeletal muscle regeneration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E2585-E2593	11.5	69
111	Single-cell gene expression reveals a landscape of regulatory T cell phenotypes shaped by the TCR. <i>Nature Immunology</i> , 2018 , 19, 291-301	19.1	203
110	FoxP3 scanning mutagenesis reveals functional variegation and mild mutations with atypical autoimmune phenotypes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E253-E262	11.5	14
109	TCR Transgenic Mice Reveal Stepwise, Multi-site Acquisition of the Distinctive Fat-Treg Phenotype. <i>Cell</i> , 2018 , 174, 285-299.e12	56.2	96
108	Identification and validation of a tumor-infiltrating Treg transcriptional signature conserved across species and tumor types. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E10672-E10681	11.5	72
107	Molecular diversification of regulatory T cells in nonlymphoid tissues. <i>Science Immunology</i> , 2018 , 3,	28	78
106	The transcriptional regulator Aire binds to and activates super-enhancers. <i>Nature Immunology</i> , 2017 , 18, 263-273	19.1	64
105	Mining the Human Gut Microbiota for Immunomodulatory Organisms. <i>Cell</i> , 2017 , 168, 928-943.e11	56.2	356
104	An Intestinal Organ Culture System Uncovers a Role for the Nervous System in Microbe-Immune Crosstalk. <i>Cell</i> , 2017 , 168, 1135-1148.e12	56.2	127
103	, a long noncoding RNA, modulates Foxp3 expression and autoimmunity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, E3472-E3480	11.5	89

102	Imaging the emergence and natural progression of spontaneous autoimmune diabetes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, E7776-E7785	11.5	31
101	Protective major histocompatibility complex allele prevents type 1 diabetes by shaping the intestinal microbiota early in ontogeny. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 9671-9676	11.5	48
100	Different molecular complexes that mediate transcriptional induction and repression by FoxP3. <i>Nature Immunology</i> , 2017 , 18, 1238-1248	19.1	74
99	Singular role for T-BET+CXCR3+ regulatory T cells in protection from autoimmune diabetes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 14103-14108	11.5	54
98	Identifying species of symbiont bacteria from the human gut that, alone, can induce intestinal Th17 cells in mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, E8141-E8150	11.5	230
97	Aire Inhibits the Generation of a Perinatal Population of Interleukin-17A-Producing Γ Cells to Promote Immunologic Tolerance. <i>Immunity</i> , 2016 , 45, 999-1012	32.3	33
96	Parsing the Interferon Transcriptional Network and Its Disease Associations. <i>Cell</i> , 2016 , 164, 564-78	56.2	151
95	Unstable FoxP3+ T regulatory cells in NZW mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 1345-50	11.5	20
94	Promiscuity Promotes Tolerance. <i>Journal of Immunology</i> , 2016 , 196, 2913-4	5.3	1
93	Poor Repair of Skeletal Muscle in Aging Mice Reflects a Defect in Local, Interleukin-33-Dependent Accumulation of Regulatory T Cells. <i>Immunity</i> , 2016 , 44, 355-67	32.3	256
92	Tissue Tregs. <i>Annual Review of Immunology</i> , 2016 , 34, 609-33	34.7	305
91	IL-33, Imprimatur of Adipocyte Thermogenesis. <i>Cell</i> , 2016 , 166, 794-795	56.2	4
90	Network pharmacology of JAK inhibitors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 9852-7	11.5	44
89	Population dynamics of islet-infiltrating cells in autoimmune diabetes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 1511-6	11.5	61
88	Brd4 bridges the transcriptional regulators, Aire and P-TEFb, to promote elongation of peripheral-tissue antigen transcripts in thymic stromal cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, E4448-57	11.5	34
87	Aire controls gene expression in the thymic epithelium with ordered stochasticity. <i>Nature Immunology</i> , 2015 , 16, 942-9	19.1	121
86	ImmVar project: Insights and design considerations for future studies of "healthy" immune variation. <i>Seminars in Immunology</i> , 2015 , 27, 51-7	10.7	39
85	Immune tolerance. Regulatory T cells generated early in life play a distinct role in maintaining self-tolerance. <i>Science</i> , 2015 , 348, 589-94	33.3	272

84	Antigen- and cytokine-driven accumulation of regulatory T cells in visceral adipose tissue of lean mice. <i>Cell Metabolism</i> , 2015 , 21, 543-57	24.6	237
83	MUCOSAL IMMUNOLOGY. Individual intestinal symbionts induce a distinct population of ROR γ regulatory T cells. <i>Science</i> , 2015 , 349, 993-7	33.3	487
82	Immunological contributions to adipose tissue homeostasis. <i>Seminars in Immunology</i> , 2015 , 27, 315-21	10.7	61
81	Rapid, high efficiency isolation of pancreatic β cells. <i>Scientific Reports</i> , 2015 , 5, 13681	4.9	12
80	Fatal autoimmunity in mice reconstituted with human hematopoietic stem cells encoding defective FOXP3. <i>Blood</i> , 2015 , 125, 3886-95	2.2	26
79	Imbalanced signal transduction in regulatory T cells expressing the transcription factor FoxP3. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 14942-7	11.5	42
78	Appearance and disappearance of the mRNA signature characteristic of Treg cells in visceral adipose tissue: age, diet, and PPAR γ effects. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 482-7	11.5	115
77	Noninvasive mapping of pancreatic inflammation in recent-onset type-1 diabetes patients. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 2139-44	11.5	98
76	Endoscopic photoconversion reveals unexpectedly broad leukocyte trafficking to and from the gut. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 6696-701	11.5	106
75	Single-cell mass cytometry of TCR signaling: amplification of small initial differences results in low ERK activation in NOD mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 16466-71	11.5	44
74	Denervation protects limbs from inflammatory arthritis via an impact on the microvasculature. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 11419-24	11.5	38
73	Type 1 diabetes in NOD mice unaffected by mast cell deficiency. <i>Diabetes</i> , 2014 , 63, 3827-34	0.9	22
72	Intersection of population variation and autoimmunity genetics in human T cell activation. <i>Science</i> , 2014 , 345, 1254665	33.3	175
71	Epigenetic modulation of type-1 diabetes via a dual effect on pancreatic macrophages and β cells. <i>ELife</i> , 2014 , 3, e04631	8.9	53
70	Variation and genetic control of gene expression in primary immunocytes across inbred mouse strains. <i>Journal of Immunology</i> , 2014 , 193, 4485-96	5.3	28
69	Interindividual variation in human T regulatory cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, E1111-20	11.5	80
68	Treg cells expressing the coinhibitory molecule TIGIT selectively inhibit proinflammatory Th1 and Th17 cell responses. <i>Immunity</i> , 2014 , 40, 569-81	32.3	456
67	Ablation of PRDM16 and beige adipose causes metabolic dysfunction and a subcutaneous to visceral fat switch. <i>Cell</i> , 2014 , 156, 304-16	56.2	569

66	A special population of regulatory T cells potentiates muscle repair. <i>Cell</i> , 2013 , 155, 1282-95	56.2	693
65	Regulatory T cells in nonlymphoid tissues. <i>Nature Immunology</i> , 2013 , 14, 1007-13	19.1	247
64	Immunological goings-on in visceral adipose tissue. <i>Cell Metabolism</i> , 2013 , 17, 851-859	24.6	292
63	Regulatory T cells control NK cells in an insulinitic lesion by depriving them of IL-2. <i>Journal of Experimental Medicine</i> , 2013 , 210, 1153-65	16.6	105
62	Convergent and divergent effects of costimulatory molecules in conventional and regulatory CD4+ T cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 1023-8	11.5	56
61	A gut feeling about arthritis. <i>ELife</i> , 2013 , 2, e01608	8.9	4
60	PPAR- δ is a major driver of the accumulation and phenotype of adipose tissue Treg cells. <i>Nature</i> , 2012 , 486, 549-53	50.4	762
59	Gut immune maturation depends on colonization with a host-specific microbiota. <i>Cell</i> , 2012 , 149, 1578-93	36.2	778
58	The immune system's involvement in obesity-driven type 2 diabetes. <i>Seminars in Immunology</i> , 2012 , 24, 436-42	10.7	116
57	A multiply redundant genetic switch locks in the transcriptional signature of regulatory T cells. <i>Nature Immunology</i> , 2012 , 13, 972-80	19.1	205
56	The neuropeptide neuromedin U promotes autoantibody-mediated arthritis. <i>Arthritis Research and Therapy</i> , 2012 , 14, R29	5.7	11
55	The influence of the microbiota on type-1 diabetes: on the threshold of a leap forward in our understanding. <i>Immunological Reviews</i> , 2012 , 245, 239-49	11.3	67
54	Aire unleashes stalled RNA polymerase to induce ectopic gene expression in thymic epithelial cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 535-40	11.5	139
53	Nuclear receptor Nr4a1 modulates both regulatory T-cell (Treg) differentiation and clonal deletion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 3891-6	11.5	80
52	Microbiota and autoimmune disease: the hosted self. <i>Cell Host and Microbe</i> , 2011 , 10, 297-301	23.4	45
51	Tissular T(regs): a unique population of adipose-tissue-resident Foxp3+CD4+ T cells that impacts organismal metabolism. <i>Seminars in Immunology</i> , 2011 , 23, 431-7	10.7	99
50	Immunometabolism: an emerging frontier. <i>Nature Reviews Immunology</i> , 2011 , 11, 81	36.5	316
49	Genome-wide and species-wide dissection of the genetics of arthritis severity in heterogeneous stock mice. <i>Arthritis and Rheumatism</i> , 2011 , 63, 2630-40		18

48	Naturally transmitted segmented filamentous bacteria segregate with diabetes protection in nonobese diabetic mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 11548-53	11.5	329
47	Levees of immunological tolerance. <i>Nature Immunology</i> , 2010 , 11, 3-6	19.1	21
46	Genomic definition of multiple ex vivo regulatory T cell subphenotypes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 5919-24	11.5	180
45	Global relevance of Aire binding to hypomethylated lysine-4 of histone-3. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 13016-21	11.5	45
44	Stability of the regulatory T cell lineage in vivo. <i>Science</i> , 2010 , 329, 1667-71	33.3	514
43	Neutrophils in a mouse model of autoantibody-mediated arthritis: critical producers of Fc receptor gamma, the receptor for C5a, and lymphocyte function-associated antigen 1. <i>Arthritis and Rheumatism</i> , 2010 , 62, 753-64		81
42	Deficiency of CXCR2, but not other chemokine receptors, attenuates autoantibody-mediated arthritis in a murine model. <i>Arthritis and Rheumatism</i> , 2010 , 62, 1921-32		67
41	Gut-residing segmented filamentous bacteria drive autoimmune arthritis via T helper 17 cells. <i>Immunity</i> , 2010 , 32, 815-27	32.3	1168
40	Aire. <i>Annual Review of Immunology</i> , 2009 , 27, 287-312	34.7	484
39	Neonatal tolerance revisited: a perinatal window for Aire control of autoimmunity. <i>Journal of Experimental Medicine</i> , 2009 , 206, 1245-52	16.6	125
38	Foxp3+ regulatory T cells: differentiation, specification, subphenotypes. <i>Nature Immunology</i> , 2009 , 10, 689-95	19.1	403
37	Lean, but not obese, fat is enriched for a unique population of regulatory T cells that affect metabolic parameters. <i>Nature Medicine</i> , 2009 , 15, 930-9	50.5	1479
36	How punctual ablation of regulatory T cells unleashes an autoimmune lesion within the pancreatic islets. <i>Immunity</i> , 2009 , 31, 654-64	32.3	176
35	The Immunological Genome Project: networks of gene expression in immune cells. <i>Nature Immunology</i> , 2008 , 9, 1091-4	19.1	1098
34	The K/BxN arthritis model. <i>Current Protocols in Immunology</i> , 2008 , Chapter 15, Unit 15.22	4	124
33	Genetic inversion in mast cell-deficient (Wsh) mice interrupts corin and manifests as hematopoietic and cardiac aberrancy. <i>American Journal of Pathology</i> , 2008 , 173, 1693-701	5.8	171
32	The AKT-mTOR axis regulates de novo differentiation of CD4+Foxp3+ cells. <i>Journal of Experimental Medicine</i> , 2008 , 205, 565-74	16.6	598
31	Circulating C3 is necessary and sufficient for induction of autoantibody-mediated arthritis in a mouse model. <i>Arthritis and Rheumatism</i> , 2007 , 56, 2968-74		19

30	Yes, it does. <i>Nature Reviews Immunology</i> , 2007 , 7, 1-1	36.5	5
29	A decade of AIRE. <i>Nature Reviews Immunology</i> , 2007 , 7, 645-50	36.5	155
28	Adaptation of TCR repertoires to self-peptides in regulatory and nonregulatory CD4+ T cells. <i>Journal of Immunology</i> , 2007 , 178, 7032-41	5.3	151
27	Mast cells contribute to initiation of autoantibody-mediated arthritis via IL-1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 2325-30	11.5	144
26	Danger-free autoimmune disease in Aire-deficient mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 18193-8	11.5	61
25	Inflammatory arthritis can be reined in by CpG-induced DC-NK cell cross talk. <i>Journal of Experimental Medicine</i> , 2007 , 204, 1911-22	16.6	76
24	Foxp3 transcription-factor-dependent and -independent regulation of the regulatory T cell transcriptional signature. <i>Immunity</i> , 2007 , 27, 786-800	32.3	474
23	The K/BxN mouse model of inflammatory arthritis: theory and practice. <i>Methods in Molecular Medicine</i> , 2007 , 136, 269-82		72
22	FOXP3 controls regulatory T cell function through cooperation with NFAT. <i>Cell</i> , 2006 , 126, 375-87	56.2	878
21	Particularities of the vasculature can promote the organ specificity of autoimmune attack. <i>Nature Immunology</i> , 2006 , 7, 284-92	19.1	152
20	Defective central tolerance induction in NOD mice: genomics and genetics. <i>Immunity</i> , 2005 , 22, 385-96	32.3	150
19	The cellular mechanism of Aire control of T cell tolerance. <i>Immunity</i> , 2005 , 23, 227-39	32.3	494
18	Variation in IL-1beta gene expression is a major determinant of genetic differences in arthritis aggressivity in mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 12489-94	11.5	25
17	Modifier loci condition autoimmunity provoked by Aire deficiency. <i>Journal of Experimental Medicine</i> , 2005 , 202, 805-15	16.6	177
16	Back to central tolerance. <i>Immunity</i> , 2004 , 20, 509-16	32.3	169
15	The role of antibodies in mouse models of rheumatoid arthritis, and relevance to human disease. <i>Advances in Immunology</i> , 2004 , 82, 217-48	5.6	91
14	Lymphocyte tolerance: central is central. <i>Harvey Lectures</i> , 2003 , 99, 95-110		
13	B-cell signaling: protein kinase Cdelta puts the brakes on. <i>Current Biology</i> , 2002 , 12, R554-6	6.3	3

12	How antibodies to a ubiquitous cytoplasmic enzyme may provoke joint-specific autoimmune disease. <i>Nature Immunology</i> , 2002 , 3, 360-5	19.1	272
11	Critical roles for interleukin 1 and tumor necrosis factor alpha in antibody-induced arthritis. <i>Journal of Experimental Medicine</i> , 2002 , 196, 77-85	16.6	278
10	Mast cells: a cellular link between autoantibodies and inflammatory arthritis. <i>Science</i> , 2002 , 297, 1689-92	33.3	642
9	Projection of an immunological self shadow within the thymus by the aire protein. <i>Science</i> , 2002 , 298, 1395-401	33.3	1841
8	Arthritis critically dependent on innate immune system players. <i>Immunity</i> , 2002 , 16, 157-68	32.3	564
7	Autoimmunity provoked by infection: how good is the case for T cell epitope mimicry?. <i>Nature Immunology</i> , 2001 , 2, 797-801	19.1	319
6	Genetic influences on the end-stage effector phase of arthritis. <i>Journal of Experimental Medicine</i> , 2001 , 194, 321-30	16.6	127
5	Arthritis provoked by linked T and B cell recognition of a glycolytic enzyme. <i>Science</i> , 1999 , 286, 1732-5	33.3	503
4	From systemic T cell self-reactivity to organ-specific autoimmune disease via immunoglobulins. <i>Immunity</i> , 1999 , 10, 451-61	32.3	572
3	Organ-specific disease provoked by systemic autoimmunity. <i>Cell</i> , 1996 , 87, 811-22	56.2	731
2	Mice lacking MHC class II molecules. <i>Cell</i> , 1991 , 66, 1051-66	56.2	798
1	Single cell analysis of FOXP3 deficiencies in humans and mice unmasks intrinsic and extrinsic CD4+ T cell perturbations		1