Kai Kisand

List of Publications by Year
in descending order

102 papers	9,256 citations	87723 38 h-index	46693 89 g-index
110 all docs	110 docs citations	110 times ranked	16193 citing authors

#	Article	IF	Citations
1	Autoantibodies against type I IFNs in patients with life-threatening COVID-19. Science, 2020, 370, .	6.0	1,983
2	A dynamic COVID-19 immune signature includes associations with poor prognosis. Nature Medicine, 2020, 26, 1623-1635.	15.2	765
3	Chronic mucocutaneous candidiasis in APECED or thymoma patients correlates with autoimmunity to Th17-associated cytokines. Journal of Experimental Medicine, 2010, 207, 299-308.	4.2	593
4	Assessment of interferon-related biomarkers in Aicardi-GoutiÃ¨res syndrome associated with mutations in TREX1, RNASEH2A, RNASEH2B, RNASEH2C, SAMHD1, and ADAR: a case-control study. Lancet Neurology, The, 2013, 12, 1159-1169.	4.9	473
5	Heterozygous STAT1 gain-of-function mutations underlie an unexpectedly broad clinical phenotype. Blood, 2016, 127, 3154-3164.	0.6	465
6	Dynamics of antibody response to BNT162b2 vaccine after six months: a longitudinal prospective study. Lancet Regional Health - Europe, The, 2021, 10, 100208.	3.0	446
7	Autoantibodies neutralizing type I IFNs are present in ~4% of uninfected individuals over 70 years old and account for ~20% of COVID-19 deaths. Science Immunology, 2021, 6, .	5.6	357
8	X-linked recessive TLR7 deficiency in ~1% of men under 60 years old with life-threatening COVID-19. Science Immunology, 2021, 6, .	5.6	267
9	AIRE-Deficient Patients Harbor Unique High-Affinity Disease-Ameliorating Autoantibodies. Cell, 2016, 166, 582-595.	13.5	228
10	Human genetic and immunological determinants of critical COVID-19 pneumonia. Nature, 2022, 603, 587-598.	13.7	216
11	Preexisting autoantibodies to type I IFNs underlie critical COVID-19 pneumonia in patients with APS-1. Journal of Experimental Medicine, 2021, 218, .	4.2	185
12	Age-related profiling of DNA methylation in CD8+ T cells reveals changes in immune response and transcriptional regulator genes. Scientific Reports, 2015, 5, 13107.	1.6	148
13	Post-Aire Maturation of Thymic Medullary Epithelial Cells Involves Selective Expression of Keratinocyte-Specific Autoantigens. Frontiers in Immunology, 2012, 3, 19.	2.2	123
14	MicroRNA Expression Profiles of Human Blood Monocyte-derived Dendritic Cells and Macrophages Reveal miR-511 as Putative Positive Regulator of Toll-like Receptor 4. Journal of Biological Chemistry, 2011, 286, 26487-26495.	1.6	121
15	Pathogenic implications for autoimmune mechanisms derived by comparative eQTL analysis of CD4+ versus CD8+ T cells. PLoS Genetics, 2017, 13, e1006643.	1.5	110
16	The risk of COVID-19 death is much greater and age dependent with type I IFN autoantibodies. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2200413119.	3.3	110
17	Mucocutaneous candidiasis and autoimmunity against cytokines in APECED and thymoma patients: Clinical and pathogenetic implications. European Journal of Immunology, 2011, 41, 1517-1527.	1.6	106
18	Human Peripheral Lymphoid Tissues Contain Autoimmune Regulator-Expressing Dendritic Cells. American Journal of Pathology, 2010, 176, 1104-1112.	1.9	101

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19	Interferon autoantibodies associated with AIRE deficiency decrease the expression of IFN-stimulated genes. Blood, 2008, 112, 2657-2666.	0.6	98
20	Modulation of Aire regulates the expression of tissue-restricted antigens. Molecular Immunology, 2008, 45, 25-33.	1.0	92
21	Autoimmune Regulator Deficiency Results in Decreased Expression of CCR4 and CCR7 Ligands and in Delayed Migration of CD4+ Thymocytes. Journal of Immunology, 2009, 183, 7682-7691.	0.4	90
22	Epigenetic profiling in CD4+ and CD8+ T cells from Graves' disease patients reveals changes in genes associated with T cell receptor signaling. Journal of Autoimmunity, 2016, 67, 46-56.	3.0	88
23	Autoimmune Polyendocrinopathy Candidiasis Ectodermal Dystrophy. Journal of Clinical Immunology, 2015, 35, 463-478.	2.0	87
24	Autoimmune polyendocrinopathy candidiasis ectodermal dystrophy: known and novel aspects of the syndrome. Annals of the New York Academy of Sciences, 2011, 1246, 77-91.	1.8	82
25	AIRE activated tissue specific genes have histone modifications associated with inactive chromatin. Human Molecular Genetics, 2009, 18, 4699-4710.	1.4	81
26	DNA-PK contributes to the phosphorylation of AIRE: Importance in transcriptional activity. Biochimica Et Biophysica Acta - Molecular Cell Research, 2008, 1783, 74-83.	1.9	70
27	miR-146b Probably Assists miRNA-146a inÂthe Suppression of Keratinocyte Proliferation and Inflammatory ResponsesÂin Psoriasis. Journal of Investigative Dermatology, 2017, 137, 1945-1954.	0.3	68
28	Longitudinal proteomic profiling reveals increased early inflammation and sustained apoptosis proteins in severe COVID-19. Scientific Reports, 2020, 10, 20533.	1.6	66
29	Anti-Cytokine Autoantibodies Preceding Onset of Autoimmune Polyendocrine Syndrome Type I Features in Early Childhood. Journal of Clinical Immunology, 2013, 33, 1341-1348.	2.0	63
30	Recessive inborn errors of type I IFN immunity in children with COVID-19 pneumonia. Journal of Experimental Medicine, 2022, 219, .	4.2	59
31	A highly conserved NFâ€Îºâ€responsive enhancer is critical for thymic expression of Aire in mice. European Journal of Immunology, 2015, 45, 3246-3256.	1.6	55
32	The follow-up of asymptomatic persons with antibodies to pyruvate dehydrogenase in adult population samples. Journal of Gastroenterology, 2001, 36, 248-254.	2.3	54
33	Anti-cytokine autoantibodies suggest pathogenetic links with autoimmune regulator deficiency in humans and mice. Clinical and Experimental Immunology, 2013, 171, 263-272.	1.1	52
34	DNA breaks and chromatin structural changes enhance the transcription of autoimmune regulator target genes. Journal of Biological Chemistry, 2017, 292, 6542-6554.	1.6	52
35	Increased microRNA-323-3p in IL-22/IL-17-producing T cells and asthma: a role in the regulation of the TGF-Î² pathway and IL-22 production. Allergy: European Journal of Allergy and Clinical Immunology, 2017, 72, 55-65.	2.7	48
36	Autoantibody Repertoire in APECED Patients Targets Two Distinct Subgroups of Proteins. Frontiers in Immunology, 2017, 8, 976.	2.2	48

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37	Clinical and Serologic Parallels to APS-I in Patients with Thymomas and Autoantigen Transcripts in Their Tumors. Journal of Immunology, 2014, 193, 3880-3890.	0.4	46
38	C-reactive protein upregulates the whole blood expression of CD59 - an integrative analysis. PLoS Computational Biology, 2017, 13, e1005766.	1.5	44
39	Monocytes present ageâ€related changes in phospholipid concentration and decreased energy metabolism. Aging Cell, 2020, 19, e13127.	3.0	42
40	Flow Cytometry Study of Blood Cell Subtypes Reflects Autoimmune and Inflammatory Processes in Autoimmune Polyendocrine Syndrome Type I. Scandinavian Journal of Immunology, 2010, 71, 459-467.	1.3	41
41	Interferon signature in patients with STAT1 gainâ€ofâ€function mutation is epigenetically determined. European Journal of Immunology, 2019, 49, 790-800.	1.6	39
42	Vaccine breakthrough hypoxemic COVID-19 pneumonia in patients with auto-Abs neutralizing type I IFNs. Science Immunology, 2023, 8, .	5.6	35
43	Signs of innate immune activation and premature immunosenescence in psoriasis patients. Scientific Reports, 2017, 7, 7553.	1.6	34
44	Allergoidâ€“mannan conjugates reprogram monocytes into tolerogenic dendritic cells via epigenetic and metabolic rewiring. Journal of Allergy and Clinical Immunology, 2022, 149, 212-222.e9.	1.5	34
45	Interferon and Interferonâ€inducible Gene Activation in Patients with Type 1 Diabetes. Scandinavian Journal of Immunology, 2014, 80, 283-292.	1.3	32
46	NickFect type of cell-penetrating peptides present enhanced efficiency for microRNA-146a delivery into dendritic cells and during skin inflammation. Biomaterials, 2020, 262, 120316.	5.7	32
47	DNA methylation signatures of the AIRE promoter in thymic epithelial cells, thymomas and normal tissues. Molecular Immunology, 2011, 49, 518-526.	1.0	30
48	Pregnancyâ€induced thymic involution is associated with suppression of chemokines essential for Tâ€lymphoid progenitor homing. European Journal of Immunology, 2016, 46, 2008-2017.	1.6	30
49	LIPS method for the detection of SARSâ€CoVâ€2 antibodies to spike and nucleocapsid proteins. European Journal of Immunology, 2020, 50, 1234-1236.	1.6	30
50	Loss-of-function mutation in IKZF2 leads to immunodeficiency with dysregulated germinal center reactions and reduction of MAIT cells. Science Immunology, 2021, 6, eabe3454.	5.6	30
51	Genome-wide promoter analysis of histone modifications in human monocyte-derived antigen presenting cells. BMC Genomics, 2010, 11, 642.	1.2	29
52	Oxidative stress in leucocytospermic prostatitis patients: preliminary results. Andrologia, 2008, 40, 161-172.	1.0	28
53	CpG sites associated with NRP1, NRXN2 and miR-29b-2 are hypomethylated in monocytes during ageing. Immunity and Ageing, 2014, 11, 1.	1.8	26
54	AIRE-induced apoptosis is associated with nuclear translocation of stress sensor protein GAPDH. Biochemical and Biophysical Research Communications, 2012, 423, 32-37.	1.0	24

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55	ILâ€6â€specific autoantibodies among APECED and thymoma patients. Immunity, Inflammation and Disease, 2016, 4, 235-243.	1.3	24
56	ILâ€22 neutralizing autoantibodies impair fungal clearance in murine oropharyngeal candidiasis model. European Journal of Immunology, 2018, 48, 464-470.	1.6	24
57	Breakdown of Immune Tolerance in AIRE-Deficient Rats Induces a Severe Autoimmune Polyendocrinopathyâ€“Candidiasisâ€“Ectodermal Dystrophyâ€“like Autoimmune Disease. Journal of Immunology, 2018, 201, 874-887.	0.4	24
58	MicroRNA-155 is Dysregulated in the Skin of Patients with Vitiligo and Inhibits Melanogenesis-associated Genes in Melanocytes and Keratinocytes. Acta Dermato-Venereologica, 2014, 96, 742-7.	0.6	23
59	Primary biliary cirrhosis: a multiâ€faced interactive disease involving genetics, environment and the immune response. Apmis, 2012, 120, 857-871.	0.9	21
60	In vivo analysis of helper T cell responses in patients with autoimmune polyendocrinopathy â€“ candidiasis â€“ ectodermal dystrophy provides evidence in support of an IL-22 defect. Autoimmunity, 2014, 47, 556-562.	1.2	21
61	Lymphoid Stress Surveillance Response Contributes to Vitiligo Pathogenesis. Frontiers in Immunology, 2018, 9, 2707.	2.2	21
62	From Your Nose to Your Toes: A Review of Severe Acute Respiratory Syndrome Coronavirus 2 Pandemicâ€'Associated Pernio. Journal of Investigative Dermatology, 2021, 141, 2791-2796.	0.3	21
63	Long-Term Elevated Inflammatory Protein Levels in Asymptomatic SARS-CoV-2 Infected Individuals. Frontiers in Immunology, 2021, 12, 709759.	2.2	21
64	TNF superfamily members play distinct roles in shaping the thymic stromal microenvironment. Molecular Immunology, 2016, 72, 92-102.	1.0	18
65	Epigenetic quantification of immunosenescent CD8⁺ TEMRA cells in human blood. Aging Cell, 2022, 21, e13607.	3.0	18
66	Lymphopenia-Induced Proliferation in Aire-Deficient Mice Helps to Explain Their Autoimmunity and Differences from Human Patients. Frontiers in Immunology, 2014, 5, 51.	2.2	16
67	Delineating the Healthy Human Skin UV ResponseÂand Early Induction of Interferon PathwayÂin Cutaneous Lupus Erythematosus. Journal of Investigative Dermatology, 2019, 139, 2058-2061.e4.	0.3	16
68	Anticommensal Responses Are Associated with Regulatory T Cell Defect in Autoimmune Polyendocrinopathyâ€“Candidiasisâ€“Ectodermal Dystrophy Patients. Journal of Immunology, 2016, 196, 2955-2964.	0.4	15
69	Irf4 Expression in Thymic Epithelium Is Critical for Thymic Regulatory T Cell Homeostasis. Journal of Immunology, 2017, 198, 1952-1960.	0.4	15
70	Aortic Calcification in a Patient with a Gain-of-Function STAT1 Mutation. Journal of Clinical Immunology, 2018, 38, 468-470.	2.0	15
71	Autoimmune polyendocrinopathy candidiasis ectodermal dystrophy and other primary immunodeficiency diseases help to resolve the nature of protective immunity against chronic mucocutaneous candidiasis. Current Opinion in Pediatrics, 2013, 25, 715-721.	1.0	14
72	IL-22 Paucity in APECED Is Associated With Mucosal and Microbial Alterations in Oral Cavity. Frontiers in Immunology, 2020, 11, 838.	2.2	14

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73	SP140L, an Evolutionarily Recent Member of the SP100 Family, Is an Autoantigen in Primary Biliary Cirrhosis. Journal of Immunology Research, 2015, 2015, 1-17.	0.9	13
74	Impaired salivary gland activity in patients with autoimmune polyendocrine syndrome type I. Autoimmunity, 2017, 50, 211-222.	1.2	13
75	Ultrastructure of medullary thymic epithelial cells of autoimmune regulator (Aire)â€deficient mice. Immunology and Cell Biology, 2010, 88, 50-56.	1.0	12
76	Dysregulation of adaptive immune responses in complement C3â€deficient patients. European Journal of Immunology, 2015, 45, 915-921.	1.6	12
77	Differential levels of IFNÎ± subtypes in autoimmunity and viral infection. Cytokine, 2021, 144, 155533.	1.4	12
78	Enzyme-linked immunosorbent assays for the determination of IgG, IgA, and IgM autoantibodies to pyruvate dehydrogenase in primary biliary cirrhosis. International Journal of Clinical and Laboratory Research, 1994, 24, 98-101.	1.0	11
79	Prevalence of SARS-CoV-2 IgG antibodies and their association with clinical symptoms of COVID-19 in Estonia (KoroSero-EST-1 study). Vaccine, 2021, 39, 5376-5384.	1.7	9
80	Propensity to excessive proinflammatory response in chronic Lyme borreliosis. Apmis, 2007, 115, 134-141.	0.9	8
81	Higher FoxP3 mRNA expression in peripheral blood mononuclear cells of GAD65 or IAâ€2 autoantibodyâ€positive compared with autoantibodyâ€negative persons. Apmis, 2008, 116, 896-902.	0.9	7
82	Comment on â€œAberrant type 1 immunity drives susceptibility to mucosal fungal infectionsâ€. Science, 2021, 373, eabi6235.	6.0	7
83	Antibody levels remain high to one-yearâ€™s follow-up after moderate and severe COVID-19, but not after mild cases. Infectious Diseases, 2022, 54, 345-355.	1.4	7
84	Metallophilic macrophages are fully developed in the thymus of autoimmune regulator (Aire)-deficient mice. Histochemistry and Cell Biology, 2009, 131, 643-649.	0.8	6
85	Aireâ€dependent transcripts escape Raver2â€induced spliceâ€event inclusion in the thymic epithelium. EMBO Reports, 2022, 23, e53576.	2.0	6
86	Clinical, Genetic and Immunological Characteristics of Paediatric Autoimmune Polyglandular Syndrome Type 1 Patients in Slovenia / KliniÄne, Genetske nn ImunoloÅ¡ke ZnaÄilnosti Otrok In Mladostnikov Z Avtoimunskim Poliglandularnim Sindromom Tipa 1 V Sloveniji. Zdravstveno Varstvo, 2015, 54, 112-118.	0.6	5
87	Response to comment on 'AIRE-deficient patients harbor unique high-affinity disease-ameliorating autoantibodies'. ELife, 2019, 8, .	2.8	4
88	Unexplained cyanosis caused by hepatopulmonary syndrome in a girl with APECED syndrome. Journal of Pediatric Endocrinology and Metabolism, 2017, 30, 365-369.	0.4	3
89	Double Trouble? CMC with a Mutation in both AIRE and STAT1. Journal of Clinical Immunology, 2018, 38, 635-637.	2.0	3
90	S95021, a novel selective and pan-neutralizing anti interferon alpha (IFN-Î±) monoclonal antibody as a candidate treatment for selected autoimmune rheumatic diseases. Journal of Translational Autoimmunity, 2021, 4, 100093.	2.0	3

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91	Human CD4 + and CD8 + T lymphocyte subpopulations have significantly different surface expression patterns of CD226 and TIGIT molecules. Scandinavian Journal of Immunology, 2021, 94, e13089.	1.3	3
92	Loss of AIRE-Mediated Immune Tolerance and the Skin. Journal of Investigative Dermatology, 2021, , .	0.3	3
93	Persistently Increased Anti-cytokine Antibodies Without Clinical Disease in a Boy with APS1 Genotype. Journal of Clinical Immunology, 2022, 42, 433-436.	2.0	2
94	Incontinentia pigmenti in a female conceived by in vitro fertilization. American Journal of Medical Genetics, Part A, 2008, 146A, 3092-3094.	0.7	1
95	Ursodeoxycholic acid treatment lowers the serum level of antibodies against pyruvate dehydrogenase and influences their inhibitory capacity for the enzyme complex in patients with primary biliary cirrhosis. Journal of Molecular Medicine, 1996, 74, 269-274.	1.7	1
96	Intracellular energetic units in cardiac cells: Targets in primary biliary cirrhosis. Journal of Molecular and Cellular Cardiology, 2002, 34, A57.	0.9	0
97	Serological description of Estonian patients with Lyme disease, a comparison with control sera from endemic and non-endemic areas. International Journal of Medical Microbiology Supplements, 2004, 293, 174-178.	0.8	0
98	OR.88. Identification of a Subset of AIRE Expressing Dendritic Cell in Human Peripheral Lymphoid Tissues: Evidences for a Role in the Induction of Peripheral Tolerance. Clinical Immunology, 2009, 131, S36-S37.	1.4	0
99	Unstimulated Adult Human B Cells Include an ILâ€10+ Population with Suppressive Properties and an Activated Phenotype. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2018, 93, 1150-1156.	1.1	0
100	Autoimmune Diseases Arising out of Single Gene Defects. , 2016, , 142-149.		0
101	Metabolic fitness is decreased in monocytes of old individuals. Aging, 2020, 12, 18791-18792.	1.4	0
102	Metabolic fitness is decreased in monocytes of old individuals. Aging, 2020, 12, 18791-18792.	1.4	0