Martin F Flajnik

List of Publications by Year
in descending order

120 papers	10,065 citations	36303 51 h-index	36028 97 g-index
123 all docs	123 docs citations	123 times ranked	7619 citing authors

#	Article	IF	Citations
1	Genome evolution in the allotetraploid frog Xenopus laevis. Nature, 2016, 538, 336-343.	27.8	849
2	Origin and evolution of the adaptive immune system: genetic events and selective pressures. Nature Reviews Genetics, 2010, 11, 47-59.	16.3	753
3	Elephant shark genome provides unique insights into gnathostome evolution. Nature, 2014, 505, 174-179.	27.8	689
4	A new antigen receptor gene family that undergoes rearrangement and extensive somatic diversification in sharks. Nature, 1995, 374, 168-173.	27.8	653
5	Comparative Genomics of the MHC. Immunity, 2001, 15, 351-362.	14.3	335
6	Comparative analyses of immunoglobulin genes: surprises and portents. Nature Reviews Immunology, 2002, 2, 688-698.	22.7	334
7	Crystal Structure of a Shark Single-Domain Antibody V Region in Complex with Lysozyme. Science, 2004, 305, 1770-1773.	12.6	282
8	A cold-blooded view of adaptive immunity. Nature Reviews Immunology, 2018, 18, 438-453.	22.7	242
9	Evolution of innate and adaptive immunity: can we draw a line?. Trends in Immunology, 2004, 25, 640-644.	6.8	230
10	The Translesion DNA Polymerase Î¶ Plays a Major Role in Ig and bcl-6 Somatic Hypermutation. Immunity, 2001, 14, 643-653.	14.3	199
11	IgD, like IgM, is a primordial immunoglobulin class perpetuated in most jawed vertebrates. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10723-10728.	7.1	193
12	Selection and characterization of naturally occurring single-domain (IgNAR) antibody fragments from immunized sharks by phage display. Molecular Immunology, 2003, 40, 25-33.	2.2	168
13	Evolutionary conservation of MHC class I and class II moleculesâ€"different yet the same. Seminars in Immunology, 1994, 6, 411-424.	5.6	161
14	A Case Of Convergence: Why Did a Simple Alternative to Canonical Antibodies Arise in Sharks and Camels?. PLoS Biology, 2011, 9, e1001120.	5.6	159
15	Decreased Frequency of Somatic Hypermutation and Impaired Affinity Maturation but Intact Germinal Center Formation in Mice Expressing Antisense RNA to DNA Polymerase Î¶. Journal of Immunology, 2001, 167, 327-335.	0.8	141
16	Shark immunity bites back: affinity maturation and memory response in the nurse shark,Ginglymostoma cirratum. European Journal of Immunology, 2005, 35, 936-945.	2.9	140
17	Which came first, MHC class I or class II?. Immunogenetics, 1991, 33, 295-300.	2.4	139
18	Ancestral Organization of the MHC Revealed in the Amphibian<i>Xenopus</i>. Journal of Immunology, 2006, 176, 3674-3685.	0.8	128

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19	Maturation of Shark Single-domain (IgNAR) Antibodies: Evidence for Induced-fit Binding. Journal of Molecular Biology, 2007, 367, 358-372.	4.2	127
20	Mutational pattern of the nurse shark antigen receptor gene (NAR) is similar to that of mammalian Ig genes and to spontaneous mutations in evolution: the translesion synthesis model of somatic hypermutation. International Immunology, 1999, 11, 825-833.	4.0	117
21	Changes in the immune system during metamorphosis of Xenopus. Trends in Immunology, 1987, 8, 58-64.	7.5	116
22	A novel â€œchimericâ€•antibody class in cartilaginous fish: IgM may not be the primordial immunoglobulin. European Journal of Immunology, 1996, 26, 1123-1129.	2.9	113
23	The Development of Primary and Secondary Lymphoid Tissues in the Nurse Shark Ginglymostoma cirratum : B-Cell Zones Precede Dendritic Cell Immigration and T-Cell Zone Formation During Ontogeny of the Spleen. Scandinavian Journal of Immunology, 2002, 56, 130-148.	2.7	110
24	Four primordial immunoglobulin light chain isotypes, includingâ€„Î» andâ€„Îº, identified in the most primitive living jawed vertebrates. European Journal of Immunology, 2007, 37, 2683-2694.	2.9	106
25	Expression of MHC Class II Antigens During Xenopus Development. Autoimmunity, 1990, 1, 85-95.	0.6	104
26	High-affinity lamprey VLRA and VLRB monoclonal antibodies. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 12891-12896.	7.1	104
27	Structural analysis, selection, and ontogeny of the shark new antigen receptor (IgNAR): identification of a new locus preferentially expressed in early development. Immunogenetics, 2002, 54, 501-512.	2.4	97
28	The plasticity of immunoglobulin gene systems in evolution. Immunological Reviews, 2006, 210, 8-26.	6.0	95
29	Hypermutation in Shark Immunoglobulin Light Chain Genes Results in Contiguous Substitutions. Immunity, 2002, 16, 571-582.	14.3	93
30	First molecular and biochemical analysis of in vivo affinity maturation in an ectothermic vertebrate. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 1846-1851.	7.1	91
31	An evolutionarily mobile antigen receptor variable region gene: Doubly rearranging NAR-TcR genes in sharks. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 5036-5041.	7.1	90
32	Immune responses of thymusf/ymphocyte embryonic chimeras: studies on tolerance and major histocompatibility complex restriction inXenopus. European Journal of Immunology, 1985, 15, 540-547.	2.9	87
33	Insight into the primordial MHC from studies in ectothermic vertebrates. Immunological Reviews, 1999, 167, 59-67.	6.0	87
34	Rearrangement of Immunoglobulin Genes in Shark Germ Cells. Journal of Experimental Medicine, 2000, 191, 1637-1648.	8.5	80
35	Evolutionarily Conserved TCR Binding Sites, Identification of T Cells in Primary Lymphoid Tissues, and Surprising Trans-Rearrangements in Nurse Shark. Journal of Immunology, 2010, 184, 6950-6960.	0.8	77
36	Evolution of the B7 family: co-evolution of B7H6 and NKp30, identification of a new B7 family member, B7H7, and of B7's historical relationship with the MHC. Immunogenetics, 2012, 64, 571-590.	2.4	73

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37	Homologs of CD83 from Elasmobranch and Teleost Fish. Journal of Immunology, 2004, 173, 4553-4560.	0.8	72
38	Proteasome, Transporter Associated with Antigen Processing, and Class I Genes in the Nurse Shark<i>Ginglymostoma cirratum</i>: Evidence for a Stable Class I Region and MHC Haplotype Lineages. Journal of Immunology, 2002, 168, 771-781.	0.8	71
39	Re-evaluation of the Immunological Big Bang. Current Biology, 2014, 24, R1060-R1065.	3.9	71
40	The structural analysis of shark IgNAR antibodies reveals evolutionary principles of immunoglobulins. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8155-8160.	7.1	67
41	Identification of class I major histocompatibility complex encoded molecules in the amphibian Xenopus. Immunogenetics, 1984, 20, 433-442.	2.4	66
42	A structural basis for antigen recognition by the T cell-like lymphocytes of sea lamprey. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 13408-13413.	7.1	66
43	Putting J Chain Back on the Map: How Might Its Expression Define Plasma Cell Development?. Journal of Immunology, 2014, 193, 3248-3255.	0.8	66
44	The evolutionary origin of the major histocompatibility complex: Polymorphism of class II Î± chain genes in the cartilaginous fish. European Journal of Immunology, 1993, 23, 2160-2165.	2.9	65
45	Localization and Differential Expression of Activation-Induced Cytidine Deaminase in the Amphibian <i>Xenopus</i> upon Antigen Stimulation and during Early Development. Journal of Immunology, 2007, 179, 6783-6789.	0.8	65
46	Isolation and characterisation of Ebolavirus-specific recombinant antibody fragments from murine and shark immune libraries. Molecular Immunology, 2011, 48, 2027-2037.	2.2	63
47	Emergence and Evolution of Secondary Lymphoid Organs. Annual Review of Cell and Developmental Biology, 2016, 32, 693-711.	9.4	61
48	MHC class I antigens as surface markers of adult erythrocytes during the metamorphosis of Xenopus. Developmental Biology, 1988, 128, 198-206.	2.0	59
49	Unprecedented Multiplicity of Ig Transmembrane and Secretory mRNA Forms in the Cartilaginous Fish. Journal of Immunology, 2004, 173, 1129-1139.	0.8	57
50	Evolution of the MHC: Antigenicity and unusual tissue distribution of Xenopus (frog) class II molecules. Molecular Immunology, 1990, 27, 451-462.	2.2	55
51	Evolution of the major histocompatibility complex: a current overview. Transplant Immunology, 1995, 3, 1-20.	1.2	54
52	Construction and next-generation sequencing analysis of a large phage-displayed VNAR single-domain antibody library from six naÃ¯ve nurse sharks. Antibody Therapeutics, 2019, 2, 1-11.	1.9	53
53	Evolutionarily conserved and divergent regions of the Autoimmune Regulator (Aire) gene: a comparative analysis. Immunogenetics, 2008, 60, 105-114.	2.4	52
54	Immunoglobulin Heavy Chain Exclusion in the Shark. PLoS Biology, 2008, 6, e157.	5.6	51

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55	The dynamic TCRÎ´: TCRÎ´ chains in the amphibian <i>Xenopus tropicalis</i> utilize antibodyâ€like V genes. European Journal of Immunology, 2010, 40, 2319-2329.	2.9	50
56	Light chain heterogeneity in the amphibian Xenopus. Molecular Immunology, 1991, 28, 985-994.	2.2	48
57	Diversity and repertoire of IgW and IgM VH families in the newborn nurse shark. BMC Immunology, 2004, 5, 8.	2.2	47
58	Shark Ig Light Chain Junctions Are as Diverse as in Heavy Chains. Journal of Immunology, 2004, 173, 5574-5582.	0.8	45
59	Structural conservation of hypervariable regions in immunoglobulins evolution. Nature Structural and Molecular Biology, 1994, 1, 915-920.	8.2	44
60	Two highly divergent ancient allelic lineages of the transporter associated with antigen processing(TAP) gene inXenopus: further evidence for co-evolution among MHC classâ€„I region genes. European Journal of Immunology, 2003, 33, 3017-3027.	2.9	42
61	J Chain in the Nurse Shark: Implications for Function in a Lower Vertebrate. Journal of Immunology, 2003, 170, 6016-6023.	0.8	39
62	Molecular Cloning of C4 Gene and Identification of the Class III Complement Region in the Shark MHC. Journal of Immunology, 2003, 171, 2461-2466.	0.8	39
63	Characterization of the immunoglobulin repertoire of the spiny dogfish (Squalus acanthias). Developmental and Comparative Immunology, 2012, 36, 665-679.	2.3	38
64	The leukocyte common antigen (CD45) of the Pacific hagfish, Eptatretus stoutii: implications for the primordial function of CD45. Immunogenetics, 2002, 54, 286-291.	2.4	37
65	Primordial Linkage of<i>Î²2-Microglobulin</i>to the MHC. Journal of Immunology, 2011, 186, 3563-3571.	0.8	37
66	Involvement of Thyroid Hormones in the Expression of MHC class I Antigens During Ontogeny in<i>Xenopus</i>. Autoimmunity, 1997, 5, 133-144.	0.6	36
67	All GOD's creatures got dedicated mucosal immunity. Nature Immunology, 2010, 11, 777-779.	14.5	36
68	The immune system of ectothermic vertebrates. Veterinary Immunology and Immunopathology, 1996, 54, 145-150.	1.2	34
69	The last flag unfurled? A new immunoglobulin isotype in fish expressed in early development. Nature Immunology, 2005, 6, 229-230.	14.5	34
70	Shark class II invariant chain reveals ancient conserved relationships with cathepsins and MHC class II. Developmental and Comparative Immunology, 2012, 36, 521-533.	2.3	34
71	Somatic hypermutation of T cell receptor Î± chain contributes to selection in nurse shark thymus. ELife, 2018, 7, .	6.0	33
72	Evolution and Developmental Regulation of the Major Histocompatibility Complex. Critical Reviews in Immunology, 1995, 15, 31-75.	0.5	32

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73	Somatic Hypermutation and Junctional Diversification at Ig Heavy Chain Loci in the Nurse Shark. Journal of Immunology, 2005, 175, 8105-8115.	0.8	32
74	Churchill and the immune system of ectothermic vertebrates. Immunological Reviews, 1998, 166, 5-14.	6.0	29
75	Noncoordinate expression of <scp>J</scp>â€chain and <scp>B</scp>limpâ€1 define nurse shark plasma cell populations during ontogeny. European Journal of Immunology, 2013, 43, 3061-3075.	2.9	29
76	Trans-species polymorphism of the major histocompatibility complex-encoded proteasome subunit LMP7 in an amphibian genus, Xenopus. Immunogenetics, 2000, 51, 186-192.	2.4	28
77	Evidence of G.O.D.â€™s Miracle: Unearthing a RAG Transposon. Cell, 2016, 166, 11-12.	28.9	28
78	Construction of a nurse shark (Ginglymostoma cirratum) bacterial artificial chromosome (BAC) library and a preliminary genome survey. BMC Genomics, 2006, 7, 106.	2.8	27
79	â€œDoubleâ€dutyâ€•conventional dendritic cells in the amphibian <i>Xenopus</i> as the prototype for antigen presentation to B cells. European Journal of Immunology, 2018, 48, 430-440.	2.9	27
80	Comparative genomic analysis of the proteasome Î²5t subunit gene: implications for the origin and evolution of thymoproteasomes. Immunogenetics, 2012, 64, 49-58.	2.4	26
81	IgM-mediated opsonization and cytotoxicity in the shark. Journal of Leukocyte Biology, 1997, 61, 141-146.	3.3	24
82	Evolution and the molecular basis of somatic hypermutation of antigen receptor genes. Philosophical Transactions of the Royal Society B: Biological Sciences, 2001, 356, 67-72.	4.0	24
83	Inferring the â€œPrimordial Immune Complexâ€ Origins of MHC Class I and Antigen Receptors Revealed by Comparative Genomics. Journal of Immunology, 2019, 203, 1882-1896.	0.8	24
84	Coevolution of <scp>MHC</scp> genes (<scp>LMP</scp>/<scp>TAP</scp>/class Ia, <scp>NKT</scp>â€class) Tj ETQq0 0 0 rgBT /Overlo 6-15.	6.0	23
85	Origin and evolution of the specialized forms of proteasomes involved in antigen presentation. Immunogenetics, 2019, 71, 251-261.	2.4	23
86	Duplication of the MHC-linked Xenopus complement factor B gene. Immunogenetics, 1995, 42, 196-203.	2.4	22
87	Evolution of Myeloid Cells. Microbiology Spectrum, 2016, 4, .	3.0	21
88	The Multiple Shark Ig H Chain Genes Rearrange and Hypermutate Autonomously. Journal of Immunology, 2011, 187, 2492-2501.	0.8	20
89	VNAR single-domain antibodies specific for BAFF inhibit B cell development by molecular mimicry. Molecular Immunology, 2016, 75, 28-37.	2.2	20
90	Haptoglobin Is a Divergent MASP Family Member That Neofunctionalized To Recycle Hemoglobin via CD163 in Mammals. Journal of Immunology, 2018, 201, 2483-2491.	0.8	20

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91	The Generation and Selection of Single-Domain, V Region Libraries from Nurse Sharks. Methods in Molecular Biology, 2009, 562, 71-82.	0.9	19
92	CXCL13 Responsiveness but Not CXCR5 Expression by Late Transitional B Cells Initiates Splenic White Pulp Formation. Journal of Immunology, 2015, 194, 2616-2623.	0.8	18
93	Terminal deoxynucleotidyl transferases from elasmobranchs reveal structural conservation within vertebrates. Immunogenetics, 2003, 55, 594-604.	2.4	16
94	Studies on the Xenopus major histocompatibility complex. Developmental and Comparative Immunology, 1985, 9, 777-781.	2.3	13
95	RING3 is linked to theXenopus major histocompatibility complex. Immunogenetics, 1996, 44, 397-399.	2.4	13
96	CD1, MR1, NKT, and MAIT: evolution and origins of non-peptidic antigen recognition by T lymphocytes. Immunogenetics, 2016, 68, 489-490.	2.4	13
97	An Ancient, MHC-Linked, Nonclassical Class I Lineage in Cartilaginous Fish. Journal of Immunology, 2020, 204, 892-902.	0.8	12
98	Molecular Cloning of Nurse Shark cDNAs with High Sequence Similarity to Nucleoside Diphosphate Kinase Genes. , 1991, , 491-499.		12
99	Another manifestation of GOD. Nature, 2004, 430, 157-158.	27.8	11
100	Venkatesh et al. reply. Nature, 2014, 511, E9-E10.	27.8	10
101	A Convergent Immunological Holy Trinity of Adaptive Immunity in Lampreys: Discovery of the Variable Lymphocyte Receptors. Journal of Immunology, 2018, 201, 1331-1335.	0.8	10
102	Lost structural and functional inter-relationships between Ig and TCR loci in mammals revealed in sharks. Immunogenetics, 2021, 73, 17-33.	2.4	10
103	From IgZ to IgT: A Call for a Common Nomenclature for Immunoglobulin Heavy Chain Genes of Ray-Finned Fish. Zebrafish, 2021, 18, 343-345.	1.1	9
104	Ancient Use of Ig Variable Domains Contributes Significantly to the TCRÎ´ Repertoire. Journal of Immunology, 2019, 203, 1265-1275.	0.8	8
105	Nurse shark Tâ€cell receptors employ somatic hypermutation preferentially to alter alpha/delta variable segments associated with alpha constant region. European Journal of Immunology, 2020, 50, 1307-1320.	2.9	8
106	A Highly Complex, MHC-Linked, 350 Million-Year-Old Shark Nonclassical Class I Lineage. Journal of Immunology, 2021, 207, 824-836.	0.8	7
107	Diverse Forms of Immunoglobulin Genes in Lower Vertebrates. , 2004, , 417-432.		6
108	Cartilaginous fish class II genes reveal unprecedented old allelic lineages and confirm the late evolutionary emergence of DM. Molecular Immunology, 2020, 128, 125-138.	2.2	6

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109	Identification of the Fcâ€alpha/mu receptor in <i>Xenopus</i> provides insight into the emergence of the polyâ€Ig receptor (pIgR) and mucosal Ig transport. European Journal of Immunology, 2021, 51, 2590-2606.	2.9	6
110	Biased Immunoglobulin Light Chain Gene Usage in the Shark. Journal of Immunology, 2015, 195, 3992-4000.	0.8	5
111	Evidence for Ig Light Chain Isotype Exclusion in Shark B Lymphocytes Suggests Ordered Mechanisms. Journal of Immunology, 2017, 199, 1875-1885.	0.8	5
112	Analysis of shark NCR3 family genes reveals primordial features of vertebrate NKp30. Immunogenetics, 2021, 73, 333-348.	2.4	5
113	Immunogenetics: alternative strategies in adaptive immunity and the rise of comparative immunogenomics. Current Opinion in Immunology, 2007, 19, 522-525.	5.5	3
114	Immunology: The Origin of Sweetbreads in Lampreys?. Current Biology, 2011, 21, R218-R220.	3.9	3
115	Questions of Stochasticity and Control in Immune Repertoires. Trends in Immunology, 2018, 39, 859-861.	6.8	3
116	Biology, evolution, and history of antigen processing and presentation: Immunogenetics special issue 2019. Immunogenetics, 2019, 71, 137-139.	2.4	3
117	Evolution of Myeloid Cells. , 2017, , 43-58.		2
118	Structure and Function of IgNARS in Sharks and Other Cartilaginous Fish. , 2016, , 160-165.		0
119	Editorial: Infection and immunity research at the University of Maryland, Baltimore. Pathogens and Disease, 2016, 74, ftw100.	2.0	0
120	Masanori Kasahara: Long-standing Immunogenetics co-editor steps down. Immunogenetics, 0, , .	2.4	0