

Nicholas J Gay

List of Publications by Year in descending order

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63
papers

5,492
citations

136885

32
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114418

63
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66
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66
docs citations

66
times ranked

6866
citing authors

#	ARTICLE	IF	CITATIONS
1	Assembly and localization of Toll-like receptor signalling complexes. <i>Nature Reviews Immunology</i> , 2014, 14, 546-558.	10.6	653
2	Structure and Function of Toll Receptors and Their Ligands. <i>Annual Review of Biochemistry</i> , 2007, 76, 141-165.	5.0	562
3	<i>Drosophila</i> Toll and IL-1 receptor. <i>Nature</i> , 1991, 351, 355-356.	13.7	518
4	Binding of the <i>Drosophila</i> cytokine Spätzle to Toll is direct and establishes signaling. <i>Nature Immunology</i> , 2003, 4, 794-800.	7.0	412
5	An Oligomeric Signaling Platform Formed by the Toll-like Receptor Signal Transducers MyD88 and IRAK-4. <i>Journal of Biological Chemistry</i> , 2009, 284, 25404-25411.	1.6	323
6	The molecular basis of the host response to lipopolysaccharide. <i>Nature Reviews Microbiology</i> , 2010, 8, 8-14.	13.6	303
7	The myristoylation of TRIF-related adaptor molecule is essential for Toll-like receptor 4 signal transduction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 6299-6304.	3.3	238
8	A Dimer of the Toll-Like Receptor 4 Cytoplasmic Domain Provides a Specific Scaffold for the Recruitment of Signalling Adaptor Proteins. <i>PLoS ONE</i> , 2007, 2, e788.	1.1	166
9	Toll-like receptors as molecular switches. <i>Nature Reviews Immunology</i> , 2006, 6, 693-698.	10.6	160
10	What the Myddosome structure tells us about the initiation of innate immunity. <i>Trends in Immunology</i> , 2011, 32, 104-109.	2.9	155
11	Crystal structure of Toll-like receptor adaptor MAL/TIRAP reveals the molecular basis for signal transduction and disease protection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 14879-14884.	3.3	123
12	Four N-linked Glycosylation Sites in Human Toll-like Receptor 2 Cooperate to Direct Efficient Biosynthesis and Secretion. <i>Journal of Biological Chemistry</i> , 2004, 279, 34589-34594.	1.6	112
13	Getting knotted: a model for the structure and activation of Spätzle. <i>Trends in Biochemical Sciences</i> , 1998, 23, 239-242.	3.7	101
14	Toll-6 and Toll-7 function as neurotrophin receptors in the <i>Drosophila melanogaster</i> CNS. <i>Nature Neuroscience</i> , 2013, 16, 1248-1256.	7.1	90
15	Activation of Toll-like receptors nucleates assembly of the MyDDosome signaling hub. <i>ELife</i> , 2018, 7, .	2.8	83
16	A family of proteins related to Spätzle, the toll receptor ligand, are encoded in the <i>Drosophila</i> genome. <i>Proteins: Structure, Function and Bioinformatics</i> , 2001, 45, 71-80.	1.5	82
17	Molecular Mechanism That Induces Activation of Spätzle, the Ligand for the <i>Drosophila</i> Toll Receptor. <i>Journal of Biological Chemistry</i> , 2010, 285, 19502-19509.	1.6	72
18	Toll-like receptor signalling through macromolecular protein complexes. <i>Molecular Immunology</i> , 2015, 63, 162-165.	1.0	72

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19	Advances in Toll-like receptor biology: Modes of activation by diverse stimuli. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2015, 50, 359-379.	2.3	71
20	Ligand-Receptor and Receptor-Receptor Interactions Act in Concert to Activate Signaling in the <i>Drosophila</i> Toll Pathway. <i>Journal of Biological Chemistry</i> , 2005, 280, 22793-22799.	1.6	69
21	A leucine-rich repeat peptide derived from the <i>Drosophila</i> Toll receptor forms extended filaments with a β -sheet structure. <i>FEBS Letters</i> , 1991, 291, 87-91.	1.3	67
22	Structural Insight into the Mechanism of Activation of the Toll Receptor by the Dimeric Ligand Spätzle. <i>Journal of Biological Chemistry</i> , 2008, 283, 14629-14635.	1.6	67
23	A Quantitative Comparison of Single-Dye Tracking Analysis Tools Using Monte Carlo Simulations. <i>PLoS ONE</i> , 2013, 8, e64287.	1.1	61
24	Assembly of Oligomeric Death Domain Complexes during Toll Receptor Signaling. <i>Journal of Biological Chemistry</i> , 2008, 283, 33447-33454.	1.6	60
25	Molecular and Cellular Regulation of Toll-Like Receptor-4 Activity Induced by Lipopolysaccharide Ligands. <i>Frontiers in Immunology</i> , 2014, 5, 473.	2.2	57
26	The COP II adaptor protein TMED7 is required to initiate and mediate the delivery of TLR4 to the plasma membrane. <i>Science Signaling</i> , 2014, 7, ra70.	1.6	53
27	Role of the Spätzle Pro-domain in the Generation of an Active Toll Receptor Ligand. <i>Journal of Biological Chemistry</i> , 2007, 282, 13522-13531.	1.6	48
28	MyD88 Death-Domain Oligomerization Determines Myddosome Architecture: Implications for Toll-like Receptor Signaling. <i>Structure</i> , 2020, 28, 281-289.e3.	1.6	45
29	An Alanine-to-Proline Mutation in the BB-Loop of TLR3 Toll/IL-1R Domain Switches Signalling Adaptor Specificity from TRIF to MyD88. <i>Journal of Immunology</i> , 2013, 191, 6101-6109.	0.4	40
30	The TLR signaling adaptor TRAM interacts with TRAF6 to mediate activation of the inflammatory response by TLR4. <i>Journal of Leukocyte Biology</i> , 2014, 96, 427-436.	1.5	38
31	Cytokine Spätzle binds to the <i>Drosophila</i> immunoreceptor Toll with a neurotrophin-like specificity and couples receptor activation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 20461-20466.	3.3	36
32	Therapeutic Administration of Recombinant Paracoccin Confers Protection against <i>Paracoccidioides brasiliensis</i> Infection: Involvement of TLRs. <i>PLoS Neglected Tropical Diseases</i> , 2014, 8, e3317.	1.3	35
33	Targeting and Recognition of Toll-Like Receptors by Plant and Pathogen Lectins. <i>Frontiers in Immunology</i> , 2017, 8, 1820.	2.2	33
34	Casein kinase II phosphorylates Ser468 in the PEST domain of the <i>Drosophila</i> β homologue cactus. <i>FEBS Letters</i> , 1997, 400, 45-50.	1.3	32
35	Three-tier regulation of cell number plasticity by neurotrophins and Tolls in <i>Drosophila</i> . <i>Journal of Cell Biology</i> , 2017, 216, 1421-1438.	2.3	32
36	Structure and regulation of cytoplasmic adapter proteins involved in innate immune signaling. <i>Immunological Reviews</i> , 2009, 227, 161-175.	2.8	31

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37	Saturation of acyl chains converts cardiolipin from an antagonist to an activator of Toll-like receptor-4. <i>Cellular and Molecular Life Sciences</i> , 2019, 76, 3667-3678.	2.4	31
38	The lectin-specific activity of <i>Toxoplasma gondii</i> microneme proteins 1 and 4 binds Toll-like receptor 2 and 4 N-glycans to regulate innate immune priming. <i>PLoS Pathogens</i> , 2019, 15, e1007871.	2.1	29
39	Critical residues involved in Toll-like receptor 4 activation by cationic lipid nanocarriers are not located at the lipopolysaccharide-binding interface. <i>Cellular and Molecular Life Sciences</i> , 2015, 72, 3971-3982.	2.4	28
40	Formation and Biochemical Characterization of Tube/Pelle Death Domain Complexes: Critical Regulators of Postreceptor Signaling by the <i>Drosophila</i> Toll Receptor. <i>Biochemistry</i> , 1999, 38, 11722-11733.	1.2	27
41	Immunogenicity Testing of Lipidoids In Vitro and In Silico: Modulating Lipidoid-Mediated TLR4 Activation by Nanoparticle Design. <i>Molecular Therapy - Nucleic Acids</i> , 2018, 11, 159-169.	2.3	27
42	X-ray diffraction and far-UV CD studies of filaments formed by a leucine-rich repeat peptide: structural similarity to the amyloid fibrils of prions and Alzheimer's disease I ² -protein. <i>FEBS Letters</i> , 1997, 412, 397-403.	1.3	25
43	Structure of the Toll/Interleukin-1 Receptor (TIR) Domain of the B-cell Adaptor That Links Phosphoinositide Metabolism with the Negative Regulation of the Toll-like Receptor (TLR) Signalosome. <i>Journal of Biological Chemistry</i> , 2017, 292, 652-660.	1.6	22
44	Impact of mutations in Toll-like receptor pathway genes on esophageal carcinogenesis. <i>PLoS Genetics</i> , 2017, 13, e1006808.	1.5	19
45	The TLR4 D299G and T399I SNPs Are Constitutively Active to Up-Regulate Expression of Trif-Dependent Genes. <i>PLoS ONE</i> , 2014, 9, e111460.	1.1	19
46	The N-terminal loop of IRAK-4 death domain regulates ordered assembly of the Myddosome signalling scaffold. <i>Scientific Reports</i> , 2016, 6, 37267.	1.6	17
47	Toll-like receptor 3 activation impairs excitability and synaptic activity via TRIF signalling in immature rat and human neurons. <i>Neuropharmacology</i> , 2018, 135, 1-10.	2.0	17
48	Identification of Key Residues That Confer <i>Rhodobacter sphaeroides</i> LPS Activity at Horse TLR4/MD-2. <i>PLoS ONE</i> , 2014, 9, e98776.	1.1	17
49	Functional Insights from the Crystal Structure of the N-Terminal Domain of the Prototypical Toll Receptor. <i>Structure</i> , 2013, 21, 143-153.	1.6	13
50	Toll-like receptor 2 promiscuity is responsible for the immunostimulatory activity of nucleic acid nanocarriers. <i>Journal of Controlled Release</i> , 2017, 247, 182-193.	4.8	13
51	The <i>Drosophila</i> ankyrin repeat protein cactus has a predominantly α -helical secondary structure. <i>FEBS Letters</i> , 1993, 335, 155-160.	1.3	12
52	The Parkinson's disease-associated kinase LRRK2 regulates genes required for cell adhesion, polarization, and chemotaxis in activated murine macrophages. <i>Journal of Biological Chemistry</i> , 2020, 295, 10857-10867.	1.6	12
53	Role of self-organising myddosome oligomers in inflammatory signalling by Toll-like receptors. <i>BMC Biology</i> , 2019, 17, 15.	1.7	11
54	Kek-6: A truncated-Trk-like receptor for <i>Drosophila</i> neurotrophin 2 regulates structural synaptic plasticity. <i>PLoS Genetics</i> , 2017, 13, e1006968.	1.5	11

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55	Yeast expressed ArtinM shares structure, carbohydrate recognition, and biological effects with native ArtinM. <i>International Journal of Biological Macromolecules</i> , 2016, 82, 22-30.	3.6	9
56	Wild type and constitutively activated forms of the <i>Drosophila</i> Toll receptor have different patterns of N-linked glycosylation. <i>FEBS Letters</i> , 1995, 365, 83-86.	1.3	7
57	Phosphorylation of the multifunctional signal transducer B-cell adaptor protein (BCAP) promotes recruitment of multiple SH2/SH3 proteins including GRB2. <i>Journal of Biological Chemistry</i> , 2019, 294, 19852-19861.	1.6	6
58	Expression and subcellular distribution of rel/NF κ B transcription factors in the preimplantation mouse embryo: novel κ B binding activities in the blastocyst stage embryo. <i>Zygote</i> , 1998, 6, 249-260.	0.5	5
59	Solution structure of the isolated Pelle death domain. <i>FEBS Letters</i> , 2005, 579, 3920-3926.	1.3	5
60	Putative link between Polo-like kinases (PLKs) and Toll-like receptor (TLR) signaling in transformed and primary human immune cells. <i>Scientific Reports</i> , 2019, 9, 13168.	1.6	3
61	Negative Regulation of TLR Signaling by BCAP Requires Dimerization of Its DBB Domain. <i>Journal of Immunology</i> , 2020, 204, 2269-2276.	0.4	3
62	Bioinformatic Analysis of Toll-Like Receptor Sequences and Structures. <i>Methods in Molecular Biology</i> , 2016, 1390, 29-39.	0.4	3
63	Activation of Insect and Vertebrate Toll Signaling: From Endogenous Cytokine Ligand to Direct Recognition of Pathogen Patterns. , 2005, 560, 19-27.		0