

Barbara A Baird

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.

104
papers

5,801
citations

40
h-index

75
g-index

113
ext. papers

6,304
ext. citations

5.3
avg, IF

5.48
L-index

#	Paper	IF	Citations
104	Micropatterned Ligand Arrays to Investigate Spatial Regulation of Cellular Signaling Initiated by Clustered Fc Receptors. <i>Methods in Molecular Biology</i> , 2022 , 2421, 1-19	1.4	0
103	Lipid-based and protein-based interactions synergize transmembrane signaling stimulated by antigen clustering of IgE receptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	6
102	Ultrasmall, Bright, and Photostable Fluorescent Core-Shell Aluminosilicate Nanoparticles for Live-Cell Optical Super-Resolution Microscopy. <i>Advanced Materials</i> , 2021 , 33, e2006829	24	7
101	Bringing light to ER contacts and a new phase in organelle communication. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 9668-9670	11.5	3
100	Imaging FCS delineates subtle heterogeneity in plasma membranes of resting mast cells. <i>Molecular Biology of the Cell</i> , 2020 , 31, 709-723	3.5	7
99	Basic Amino Acids Within the Juxtamembrane Domain of the Epidermal Growth Factor Receptor Regulate Receptor Dimerization and Auto-phosphorylation. <i>Protein Journal</i> , 2020 , 39, 476-486	3.9	
98	Regulation of exocytosis and mitochondrial relocalization by Alpha-synuclein in a mammalian cell model. <i>Npj Parkinson's Disease</i> , 2019 , 5, 12	9.7	11
97	Computation of a Theoretical Membrane Phase Diagram and the Role of Phase in Lipid-Raft-Mediated Protein Organization. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 3500-3513	3.4	10
96	Short chain ceramides disrupt immunoreceptor signaling by inhibiting segregation of Lo from Ld Plasma membrane components. <i>Biology Open</i> , 2018 , 7,	2.2	5
95	Beyond Media Composition: Cell Plasma Membrane Disruptions by Graphene Oxide. <i>CheM</i> , 2017 , 2, 324-325	10.5	2
94	Mechanisms of epidermal growth factor receptor signaling as characterized by patterned ligand activation and mutational analysis. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2017 , 1859, 1430-1435	3.8	10
93	Molecular anatomy of the early events in STIM1 activation - oligomerization or conformational change?. <i>Journal of Cell Science</i> , 2017 , 130, 2821-2832	5.3	13
92	The FcRI Signaling Cascade and Integrin Trafficking Converge at Patterned Ligand Surfaces. <i>Molecular Biology of the Cell</i> , 2017 ,	3.5	20
91	Timescale Separation of Positive and Negative Signaling Creates History-Dependent Responses to IgE Receptor Stimulation. <i>Scientific Reports</i> , 2017 , 7, 15586	4.9	13
90	Rab11 Regulates the Mast Cell Exocytic Response. <i>Traffic</i> , 2016 , 17, 1027-41	5.7	21
89	Roles for lipid heterogeneity in immunoreceptor signaling. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2016 , 1861, 830-836	5	18
88	Roles for Ca ²⁺ mobilization and its regulation in mast cell functions: recent progress. <i>Biochemical Society Transactions</i> , 2016 , 44, 505-9	5.1	20

87	Graphene Oxide Nanosheets Stimulate Ruffling and Shedding of Mammalian Cell Plasma Membranes. <i>CheM</i> , 2016 , 1, 273-286	16.2	22
86	Functional nanoscale coupling of Lyn kinase with IgE-Fc β RI is restricted by the actin cytoskeleton in early antigen-stimulated signaling. <i>Molecular Biology of the Cell</i> , 2016 , 27, 3645-3658	3.5	29
85	A novel fluorescence-based biosynthetic trafficking method provides pharmacologic evidence that PI4-kinase III β is important for protein trafficking from the endoplasmic reticulum to the plasma membrane. <i>BMC Cell Biology</i> , 2015 , 16, 5		3
84	Real-time imaging of Ca(2+) mobilization and degranulation in mast cells. <i>Methods in Molecular Biology</i> , 2015 , 1220, 347-63	1.4	10
83	Non-Faradaic Electrochemical Detection of Exocytosis from Mast and Chromaffin Cells Using Floating-Gate MOS Transistors. <i>Scientific Reports</i> , 2015 , 5, 18477	4.9	3
82	Nanodomains in early and later phases of Fc ϵ RI signalling. <i>Essays in Biochemistry</i> , 2015 , 57, 147-63	7.6	12
81	Fabrication of electroactive composite nanofibers of functionalized polymer and CNT capable of specifically binding with the IgE (Immunoglobulin E) antibody. <i>Surface and Interface Analysis</i> , 2014 , 46, 237-242	1.5	4
80	Activation of Cdc42 is necessary for sustained oscillations of Ca $^{2+}$ and PIP $_2$ stimulated by antigen in RBL mast cells. <i>Biology Open</i> , 2014 , 3, 700-10	2.2	9
79	An Interaction Library for the Fc β RI Signaling Network. <i>Frontiers in Immunology</i> , 2014 , 5, 172	8.4	11
78	Spatially defined EGF receptor activation reveals an F-actin-dependent phospho-Erk signaling complex. <i>Biophysical Journal</i> , 2014 , 107, 2639-51	2.9	16
77	Polyunsaturated fatty acids inhibit stimulated coupling between the ER Ca(2+) sensor STIM1 and the Ca(2+) channel protein Orai1 in a process that correlates with inhibition of stimulated STIM1 oligomerization. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2014 , 1841, 1210-6	5	14
76	Activation of Cdc42 is critical for sustained Ca $^{2+}$ oscillations stimulated by antigen crosslinking of IgE/Fc β RI complexes in RBL mast cells (1013.3). <i>FASEB Journal</i> , 2014 , 28, 1013.3	0.9	
75	Distinct stages of stimulated Fc β RI receptor clustering and immobilization are identified through superresolution imaging. <i>Biophysical Journal</i> , 2013 , 105, 2343-54	2.9	47
74	Mutations in the polybasic juxtamembrane sequence of both plasma membrane- and endoplasmic reticulum-localized epidermal growth factor receptors confer ligand-independent cell transformation. <i>Journal of Biological Chemistry</i> , 2013 , 288, 34930-42	5.4	7
73	Inhibitors of PI(4,5)P $_2$ synthesis reveal dynamic regulation of IgE receptor signaling by phosphoinositides in RBL mast cells. <i>Molecular Pharmacology</i> , 2013 , 83, 793-804	4.3	16
72	Polymer Brushes as Functional, Patterned Surfaces for Nanobiotechnology. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , 2013 , 25, 53-56	0.7	8
71	Toxoplasma gondii inhibits mast cell degranulation by suppressing phospholipase C β -mediated Ca(2+) mobilization. <i>Frontiers in Microbiology</i> , 2013 , 4, 179	5.7	10
70	Quantitative nanoscale analysis of IgE-Fc β RI clustering and coupling to early signaling proteins. <i>Journal of Physical Chemistry B</i> , 2012 , 116, 6923-35	3.4	33

69	Molecular mechanisms of spontaneous and directed mast cell motility. <i>Journal of Leukocyte Biology</i> , 2012 , 92, 1029-41	6.5	19
68	Roles for ca(2+) mobilization and its regulation in mast cell functions. <i>Frontiers in Immunology</i> , 2012 , 3, 104	8.4	33
67	Archetypical Conductive Polymer Structure for Specific Interaction with Proteins. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2012 , 49, 330-338	2.2	2
66	Correlation functions quantify super-resolution images and estimate apparent clustering due to over-counting. <i>PLoS ONE</i> , 2012 , 7, e31457	3.7	210
65	Micro-patterned arrays of epidermal growth factor (EGF) reveal stimulated association of paxillin, ERK, and F-actin with EGF receptors during cell signaling. <i>FASEB Journal</i> , 2012 , 26, 971.5	0.9	
64	2D-ELDOR study of heterogeneity and domain structure changes in plasma membrane vesicles upon cross-linking of receptors. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 10462-9	3.4	11
63	Cellular responses to patterned poly(acrylic acid) brushes. <i>Langmuir</i> , 2011 , 27, 7016-23	4	40
62	Stimulated association of STIM1 and Orai1 is regulated by the balance of PtdIns(4,5)P ₂ between distinct membrane pools. <i>Journal of Cell Science</i> , 2011 , 124, 2602-10	5.3	65
61	Micropatterned ligand arrays to study spatial regulation in Fc receptor signaling. <i>Methods in Molecular Biology</i> , 2011 , 748, 195-207	1.4	3
60	Sphingosine derivatives inhibit cell signaling by electrostatically neutralizing polyphosphoinositides at the plasma membrane. <i>Self/nonself</i> , 2010 , 1, 133-143		5
59	Ca ²⁺ waves initiate antigen-stimulated Ca ²⁺ responses in mast cells. <i>Journal of Immunology</i> , 2009 , 183, 6478-88	5.3	38
58	The beta- and gamma-isoforms of type I PIP5K regulate distinct stages of Ca ²⁺ signaling in mast cells. <i>Journal of Cell Science</i> , 2009 , 122, 2567-74	5.3	37
57	Molecular clustering of STIM1 with Orai1/CRACM1 at the plasma membrane depends dynamically on depletion of Ca ²⁺ stores and on electrostatic interactions. <i>Molecular Biology of the Cell</i> , 2009 , 20, 389-99	3.5	125
56	Roles for SH2 and SH3 domains in Lyn kinase association with activated FcεRI in RBL mast cells revealed by patterned surface analysis. <i>Journal of Structural Biology</i> , 2009 , 168, 161-7	3.4	12
55	Real-time cross-correlation image analysis of early events in IgE receptor signaling. <i>Biophysical Journal</i> , 2008 , 94, 4996-5008	2.9	13
54	Structural determinants for partitioning of lipids and proteins between coexisting fluid phases in giant plasma membrane vesicles. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2008 , 1778, 20-32	3.8	173
53	Critical fluctuations in plasma membrane vesicles. <i>ACS Chemical Biology</i> , 2008 , 3, 287-93	4.9	354
52	Focal adhesion proteins connect IgE receptors to the cytoskeleton as revealed by micropatterned ligand arrays. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 17238-44	11.5	44

51	Synthesis and Characterization of [Bi[2,4-dinitrophenyl (DNP)] poly(2-methoxystyrene) Functional Polymers. Initial Evaluation of the Interaction of the Functional Polymers with RBL Mast Cells. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2008 , 45, 664-671	2.2	6
50	Nanobiotechnology and cell biology: micro- and nanofabricated surfaces to investigate receptor-mediated signaling. <i>Annual Review of Biophysics</i> , 2008 , 37, 265-88	21.1	79
49	Trivalent ligands with rigid DNA spacers reveal structural requirements for IgE receptor signaling in RBL mast cells. <i>ACS Chemical Biology</i> , 2007 , 2, 674-84	4.9	75
48	Fluorescence resonance energy transfer between lipid probes detects nanoscopic heterogeneity in the plasma membrane of live cells. <i>Biophysical Journal</i> , 2007 , 92, 3564-74	2.9	66
47	Insights into immunoglobulin E receptor signaling from structurally defined ligands. <i>Immunological Reviews</i> , 2007 , 217, 269-79	11.3	75
46	Differential targeting of secretory lysosomes and recycling endosomes in mast cells revealed by patterned antigen arrays. <i>Journal of Cell Science</i> , 2007 , 120, 3147-54	5.3	30
45	Large-scale fluid/fluid phase separation of proteins and lipids in giant plasma membrane vesicles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 3165-70	11.5	621
44	Coexisting domains in the plasma membranes of live cells characterized by spin-label ESR spectroscopy. <i>Biophysical Journal</i> , 2006 , 90, 4452-65	2.9	112
43	Functionalized surface arrays for spatial targeting of immune cell signaling. <i>Journal of the American Chemical Society</i> , 2006 , 128, 5594-5	16.4	44
42	Core/Shell fluorescent silica nanoparticles for chemical sensing: towards single-particle laboratories. <i>Small</i> , 2006 , 2, 723-6	11	252
41	Molecular templates for bio-specific recognition by low-energy electron beam lithography. <i>Nanobiotechnology</i> , 2005 , 1, 023-034		16
40	Lipid segregation and IgE receptor signaling: a decade of progress. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2005 , 1746, 252-9	4.9	119
39	Temporally resolved interactions between antigen-stimulated IgE receptors and Lyn kinase on living cells. <i>Journal of Cell Biology</i> , 2005 , 171, 527-36	7.3	111
38	Reconstitution of regulated phosphorylation of FcεRI by a lipid raft-excluded protein-tyrosine phosphatase. <i>Journal of Biological Chemistry</i> , 2005 , 280, 1230-5	5.4	55
37	Transmembrane sequences are determinants of immunoreceptor signaling. <i>Journal of Immunology</i> , 2005 , 175, 2123-31	5.3	49
36	Visualization of plasma membrane compartmentalization with patterned lipid bilayers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 13798-803	11.5	124
35	In situ measurement of degranulation as a biosensor based on RBL-2H3 mast cells. <i>Biosensors and Bioelectronics</i> , 2004 , 20, 791-6	11.8	61
34	A lipid raft environment enhances Lyn kinase activity by protecting the active site tyrosine from dephosphorylation. <i>Journal of Biological Chemistry</i> , 2003 , 278, 20746-52	5.4	127

33	Disruption of lipid order by short-chain ceramides correlates with inhibition of phospholipase D and downstream signaling by FcepsilonRI. <i>Journal of Cell Science</i> , 2003 , 116, 3177-87	5.3	56
32	Antigen-stimulated trafficking from the recycling compartment to the plasma membrane in RBL mast cells. <i>Traffic</i> , 2003 , 4, 190-200	5.7	27
31	Lateral Diffusion of Membrane Lipid-Anchored Probes before and after Aggregation of Cell Surface IgE-Receptors. <i>Journal of Physical Chemistry A</i> , 2003 , 107, 8310-8318	2.8	33
30	Highly effective poly(ethylene glycol) architectures for specific inhibition of immune receptor activation. <i>Biochemistry</i> , 2003 , 42, 12739-48	3.2	49
29	Mast Cell Activation on Patterned Lipid Bilayers of Subcellular Dimensions. <i>Langmuir</i> , 2003 , 19, 1599-1605		84
28	Bivalent ligands with rigid double-stranded DNA spacers reveal structural constraints on signaling by Fc epsilon RI. <i>Journal of Immunology</i> , 2002 , 169, 856-64	5.3	62
27	Nanoscale Patterning of Antigen on Silicon Substrate to Examine Mast Cell Activation. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 724, N4.3.1		
26	Fluorescence anisotropy measurements of lipid order in plasma membranes and lipid rafts from RBL-2H3 mast cells. <i>Biochemistry</i> , 2001 , 40, 12422-9	3.2	133
25	Fc(epsilon)RI as a paradigm for a lipid raft-dependent receptor in hematopoietic cells. <i>Seminars in Immunology</i> , 2001 , 13, 99-105	10.7	85
24	Cross-correlation analysis of inner-leaflet-anchored green fluorescent protein co-redistributed with IgE receptors and outer leaflet lipid raft components. <i>Biophysical Journal</i> , 2001 , 80, 2120-32	2.9	99
23	Micro- and Nanofabricating Lipid Patterns Using a Polymer-Based Wet Lift-Off. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 705, 7181		1
22	Mutant RBL mast cells defective in Fc epsilon RI signaling and lipid raft biosynthesis are reconstituted by activated Rho-family GTPases. <i>Molecular Biology of the Cell</i> , 2000 , 11, 3661-73	3.5	37
21	Critical role for cholesterol in Lyn-mediated tyrosine phosphorylation of FcepsilonRI and their association with detergent-resistant membranes. <i>Journal of Cell Biology</i> , 1999 , 145, 877-87	7.3	286
20	Structural aspects of the association of FcepsilonRI with detergent-resistant membranes. <i>Journal of Biological Chemistry</i> , 1999 , 274, 1753-8	5.4	93
19	Membrane organization in immunoglobulin E receptor signaling. <i>Current Opinion in Chemical Biology</i> , 1999 , 3, 95-9	9.7	118
18	Electrospray mass spectra from protein electroeluted from sodium dodecylsulfate polyacrylamide gel electrophoresis gels. <i>Journal of the American Society for Mass Spectrometry</i> , 1999 , 10, 453-5	3.5	26
17	How does the plasma membrane participate in cellular signaling by receptors for immunoglobulin E?. <i>Biophysical Chemistry</i> , 1999 , 82, 109-19	3.5	72
16	Symposia lectures. <i>Journal of Biosciences</i> , 1999 , 24, 5-31	2.3	

15	Electron spin resonance characterization of liquid ordered phase of detergent-resistant membranes from RBL-2H3 cells. <i>Biophysical Journal</i> , 1999 , 77, 925-33	2.9	110
14	Quantitative analysis of phospholipids in functionally important membrane domains from RBL-2H3 mast cells using tandem high-resolution mass spectrometry. <i>Biochemistry</i> , 1999 , 38, 8056-63	3.2	256
13	Compartmentalized activation of the high affinity immunoglobulin E receptor within membrane domains. <i>Journal of Biological Chemistry</i> , 1997 , 272, 4276-80	5.4	278
12	Evidence supporting a role for microfilaments in regulating the coupling between poorly dissociable IgE-Fc epsilonRI aggregates downstream signaling pathways. <i>Biochemistry</i> , 1997 , 36, 7447-56 ^{3,2}		47
11	The Fc segment of IgE influences the kinetics of dissociation of a symmetrical bivalent ligand from cyclic dimeric complexes. <i>Biochemistry</i> , 1996 , 35, 5518-27	3.2	24
10	Structural mapping of IgE-Fc.epsilon.RI, an immunoreceptor complex. <i>Accounts of Chemical Research</i> , 1993 , 26, 428-434	24.3	18
9	Rotational motion of monomeric and dimeric immunoglobulin E-receptor complexes. <i>Biochemistry</i> , 1992 , 31, 567-75	3.2	22
8	Aggregation of IgE-receptor complexes on rat basophilic leukemia cells does not change the intrinsic affinity but can alter the kinetics of the ligand-IgE interaction. <i>Biochemistry</i> , 1992 , 31, 5350-6	3.2	59
7	Characterization of model antigens composed of biotinylated haptens bound to avidin. <i>Immunological Investigations</i> , 1990 , 19, 1-25	2.9	5
6	Microfilaments regulate the rate of exocytosis in rat basophilic leukemia cells. <i>Biochemical and Biophysical Research Communications</i> , 1990 , 171, 222-9	3.4	29
5	Proteolytic digestion of the beta and gamma subunits of the receptor for immunoglobulin E at the cytoplasmic face of the plasma membrane. <i>Journal of Receptors and Signal Transduction</i> , 1989 , 9, 235-58		1
4	Structural studies on the membrane-bound immunoglobulin E (IgE)-receptor complex. 2. Mapping of distances between sites on IgE and the membrane surface. <i>Biochemistry</i> , 1983 , 22, 3475-3484	3.2	58
3	Enhancement of the recognition by cytotoxic T lymphocytes (CTL) of target membrane antigens after fusion with whole cells. <i>Cellular Immunology</i> , 1983 , 75, 312-27	4.4	4
2	Regulation of Exocytosis and Mitochondrial Relocalization by Alpha-Synuclein in a Mammalian Cell Model		1
1	Lipid-based, protein-based, and steric interactions synergize to facilitate transmembrane signaling stimulated by antigen-clustering of IgE receptors		1