Raimund J Ober

List of Publications by Year
in descending order

76	5,849	109264 35	102432 66
papers	citations	h-index	g-index

79	79	79	4705
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Localization Accuracy in Single-Molecule Microscopy. Biophysical Journal, 2004, 86, 1185-1200.	0.2	538
2	Differences in promiscuity for antibodyâ€“FcRn interactions across species: implications for therapeutic antibodies. International Immunology, 2001, 13, 1551-1559.	1.8	430
3	Engineering the Fc region of immunoglobulin G to modulate in vivo antibody levels. Nature Biotechnology, 2005, 23, 1283-1288.	9.4	325
4	The MHC class I-related receptor, FcRn, plays an essential role in the maternofetal transfer of Î³-globulin in humans. International Immunology, 2001, 13, 993-1002.	1.8	287
5	Visualizing the Site and Dynamics of IgG Salvage by the MHC Class I-Related Receptor, FcRn. Journal of Immunology, 2004, 172, 2021-2029.	0.4	269
6	High Accuracy 3D Quantum Dot Tracking with Multifocal Plane Microscopy for the Study of Fast Intracellular Dynamics in Live Cells. Biophysical Journal, 2008, 95, 6025-6043.	0.2	263
7	Super-resolution fight club: assessment of 2D and 3D single-molecule localization microscopy software. Nature Methods, 2019, 16, 387-395.	9.0	251
8	Increasing the serum persistence of an IgG fragment by random mutagenesis. Nature Biotechnology, 1997, 15, 637-640.	9.4	230
9	Exocytosis of IgG as mediated by the receptor, FcRn: An analysis at the single-molecule level. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 11076-11081.	3.3	230
10	Beyond Rayleigh's criterion: A resolution measure with application to single-molecule microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 4457-4462.	3.3	212
11	Conditional deletion of the MHC class I-related receptor FcRn reveals the sites of IgG homeostasis in mice. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 2788-2793.	3.3	179
12	Evidence to support the cellular mechanism involved in serum IgG homeostasis in humans. International Immunology, 2003, 15, 187-195.	1.8	173
13	Simultaneous Imaging of Different Focal Planes in Fluorescence Microscopy for the Study of Cellular Dynamics in Three Dimensions. IEEE Transactions on Nanobioscience, 2004, 3, 237-242.	2.2	169
14	Neonatal Fc receptor antagonist efgartigimod safely and sustainably reduces IgGs in humans. Journal of Clinical Investigation, 2018, 128, 4372-4386.	3.9	162
15	Quantitative study of single molecule location estimation techniques. Optics Express, 2009, 17, 23352.	1.7	151
16	Chapter 4 Multitasking by Exploitation of Intracellular Transport Functions. Advances in Immunology, 2009, 103, 77-115.	1.1	148
17	Elucidation of intracellular recycling pathways leading to exocytosis of the Fc receptor, FcRn, by using multifocal plane microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 5889-5894.	3.3	147
18	Divergent activities of an engineered antibody in murine and human systems have implications for therapeutic antibodies. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 18709-18714.	3.3	106

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19	Fisher information theory for parameter estimation in single molecule microscopy: tutorial. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2016, 33, B36.	0.8	100
20	Targeting the Neonatal Fc Receptor for Antigen Delivery Using Engineered Fc Fragments. Journal of Immunology, 2008, 181, 7550-7561.	0.4	93
21	Neonatal Fc Receptor Blockade by Fc Engineering Ameliorates Arthritis in a Murine Model. Journal of Immunology, 2011, 187, 1015-1022.	0.4	82
22	Macrophage-Mediated Trogocytosis Leads to Death of Antibody-Opsonized Tumor Cells. Molecular Cancer Therapeutics, 2016, 15, 1879-1889.	1.9	75
23	3D Single Molecule Tracking with Multifocal Plane Microscopy Reveals Rapid Intercellular Transferrin Transport at Epithelial Cell Barriers. Biophysical Journal, 2012, 103, 1594-1603.	0.2	73
24	Targeting FcRn for the modulation of antibody dynamics. Molecular Immunology, 2015, 67, 131-141.	1.0	72
25	Analyses of the Recycling Receptor, FcRn, in Live Cells Reveal Novel Pathways for Lysosomal Delivery. Traffic, 2009, 10, 600-614.	1.3	71
26	Targeting FcRn to Generate Antibody-Based Therapeutics. Trends in Pharmacological Sciences, 2018, 39, 892-904.	4.0	66
27	A Stochastic Analysis of Performance Limits for Optical Microscopes. Multidimensional Systems and Signal Processing, 2006, 17, 27-57.	1.7	64
28	Improved single particle localization accuracy with dual objective multifocal plane microscopy. Optics Express, 2009, 17, 6881.	1.7	64
29	Conferring the Binding Properties of the Mouse MHC Class I-related Receptor, FcRn, onto the Human Ortholog by Sequential Rounds of Site-directed Mutagenesis. Journal of Molecular Biology, 2005, 345, 1071-1081.	2.0	60
30	Engineering a HER2-specific antibodyâ€“drug conjugate to increase lysosomal delivery and therapeutic efficacy. Nature Biotechnology, 2019, 37, 523-526.	9.4	58
31	Generation of Mutated Variants of the Human Form of the MHC Class I-related Receptor, FcRn, with Increased Affinity for Mouse Immunoglobulin G. Journal of Molecular Biology, 2003, 332, 901-913.	2.0	57
32	The effect of pH dependence of antibody-antigen interactions on subcellular trafficking dynamics. MAbs, 2013, 5, 851-859.	2.6	52
33	The level of HER2 expression is a predictor of antibody-HER2 trafficking behavior in cancer cells. MAbs, 2014, 6, 1211-1219.	2.6	46
34	Loss of expression of the recycling receptor, FcRn, promotes tumor cell growth by increasing albumin consumption. Oncotarget, 2017, 8, 3528-3541.	0.8	46
35	Autoantibody depletion ameliorates disease in murine experimental autoimmune encephalomyelitis. MAbs, 2013, 5, 655-659.	2.6	45
36	Neonatal Fc receptor expression in macrophages is indispensable for IgG homeostasis. MAbs, 2019, 11, 848-860.	2.6	40

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37	Using multifocal plane microscopy to reveal novel trafficking processes in the recycling pathway. Journal of Cell Science, 2013, 126, 1176-1188.	1.2	36
38	Engineered clearing agents for the selective depletion of antigen-specific antibodies. Nature Communications, 2017, 8, 15314.	5.8	32
39	Limit of the Accuracy of Parameter Estimation for Moving Single Molecules Imaged by Fluorescence Microscopy. IEEE Transactions on Signal Processing, 2011, 59, 895-911.	3.2	26
40	Myelin oligodendrocyte glycoprotein-specific antibodies from multiple sclerosis patients exacerbate disease in a humanized mouse model. Journal of Autoimmunity, 2018, 86, 104-115.	3.0	26
41	Engineering multivalent antibodies to target heregulin-induced HER3 signaling in breast cancer cells. MAbs, 2014, 6, 340-353.	2.6	25
42	Antibody targeting of <scp>HER</scp>2/<scp>HER</scp>3 signaling overcomes heregulinâ€induced resistance to <scp>PI</scp>3<scp>K</scp> inhibition in prostate cancer. International Journal of Cancer, 2015, 137, 267-277.	2.3	25
43	Use of Fc-Engineered Antibodies as Clearing Agents to Increase Contrast During PET. Journal of Nuclear Medicine, 2014, 55, 1204-1207.	2.8	23
44	Selective Depletion of Antigen-Specific Antibodies for the Treatment of Demyelinating Disease. Molecular Therapy, 2021, 29, 1312-1323.	3.7	20
45	A stochastic analysis of distance estimation approaches in single molecule microscopy: quantifying the resolution limits of photon-limited imaging systems. Multidimensional Systems and Signal Processing, 2013, 24, 503-542.	1.7	19
46	Resolution limit of image analysis algorithms. Nature Communications, 2019, 10, 793.	5.8	18
47	Analysis of exponential data using a noniterative technique: application to surface plasmon experiments. Analytical Biochemistry, 2003, 312, 57-65.	1.1	17
48	Achievable Accuracy of Parameter Estimation for Multidimensional NMR Experiments. Journal of Magnetic Resonance, 2002, 157, 1-16.	1.2	15
49	Compensation for Loss of Ligand Activity in Surface Plasmon Resonance Experiments. Analytical Biochemistry, 2002, 306, 228-236.	1.1	15
50	A Software Framework for the Analysis of Complex Microscopy Image Data. IEEE Transactions on Information Technology in Biomedicine, 2010, 14, 1075-1087.	3.6	15
51	Targeting Phosphatidylserine with Calcium-Dependent Proteinâ€“Drug Conjugates for the Treatment of Cancer. Molecular Cancer Therapeutics, 2018, 17, 169-182.	1.9	14
52	Targeting FcRn for therapy: From live cell imaging to in vivo studies in mice. Immunology Letters, 2014, 160, 158-162.	1.1	11
53	State Space Realization of a Three-dimensional Image Set with Application to Noise Reduction of Fluorescent Microscopy Images of Cells. Multidimensional Systems and Signal Processing, 2005, 16, 7-47.	1.7	9
54	Phagocytosis of antibodyâ€opsonized tumor cells leads to the formation of a discrete vacuolar compartment in macrophages. Traffic, 2018, 19, 273-284.	1.3	8

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55	Shooting for the moon: using tissue-mimetic hydrogels to gain new insight on cancer biology and screen therapeutics. MRS Communications, 2017, 7, 427-441.	0.8	6
56	State space approach to single molecule localization in fluorescence microscopy. Biomedical Optics Express, 2017, 8, 1332.	1.5	6
57	Commentary: â€œThereâ€™s been a Flaw in Our Thinkingâ€. Frontiers in Immunology, 2015, 6, 351.	2.2	5
58	Comparison of estimation algorithms in single-molecule localization. Proceedings of SPIE, 2010, 7570, 757004.	0.8	4
59	Localization accuracy in single molecule microscopy using electron-multiplying charge-coupled device cameras. , 2012, 8227, .		4
60	Two approximations for the geometric model of signal amplification in an electron-multiplying charge-coupled device detector. Proceedings of SPIE, 2013, 8589, 858905.	0.8	4
61	Antigen dynamics govern the induction of CD4 + T cell tolerance during autoimmunity. Journal of Autoimmunity, 2016, 72, 84-94.	3.0	4
62	Hepatic function of FcRn revealed: Implications for overcoming drugâ€mediated hepatotoxicity. Hepatology, 2017, 66, 2083-2085.	3.6	4
63	A two-stage method for automated detection of ring-like endosomes in fluorescent microscopy images. PLoS ONE, 2019, 14, e0218931.	1.1	4
64	3D single molecule tracking and superresolution microscopy using multifocal plane microscopy. , 2012, 2012, 914-915.		3
65	Influence of prior knowledge on the accuracy limit of parameter estimation in single-molecule fluorescence microscopy. , 2013, 2013, 1304-1307.		2
66	Fluorescent Microspheres as Point Sources: A Localization Study. PLoS ONE, 2015, 10, e0134112.	1.1	2
67	An information-theoretic approach to designing the plane spacing for multifocal plane microscopy. , 2015, 9330, .		2
68	Automatic endosomal structure detection and localization in fluorescence microscopic images. , 2017, 2017, .		2
69	Effect of Pixelation on the Parameter Estimation of Single Molecule Trajectories. IEEE Transactions on Computational Imaging, 2021, 7, 98-113.	2.6	2
70	Selective depletion of radiolabeled HER2-specific antibody for contrast improvement during PET. MAbs, 2021, 13, 1976705.	2.6	2
71	Investigating the usage of point spread functions in point source and microsphere localization. Proceedings of SPIE, 2016, 9713, .	0.8	1
72	Remote focusing multifocal plane microscopy for the imaging of 3D single molecule dynamics with cellular context. , 2017, 10070, .		1

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73	A state space based approach to localizing single molecules from multi-emitter images. , 2017, 10070, .		1
74	Limit of the accuracy of parameter estimation for two molecules moving in close proximity. , 2015, 2015, 441-444.		0
75	New results on the single molecule localization problem in two and three dimensions. Proceedings of SPIE, 2015, 9554, .	0.8	0
76	PARAMETER ESTIMATION AND INFORMATION THEORY IN SINGLE-MOLECULE AND SUPER-RESOLUTION MICROSCOPY. , 2021, , .		0