Friedrich Frischknecht

List of Publications by Year
in descending order

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		66343	71685
141	6,875	42	76
papers	citations	h-index	g-index

160	160	160	5440
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quantitative imaging of Plasmodium transmission from mosquito to mammal. Nature Medicine, 2006, 12, 220-224.	30.7	481
2	Actin-based motility of vaccinia virus mimics receptor tyrosine kinase signalling. Nature, 1999, 401, 926-929.	27.8	394
3	A complex of N-WASP and WIP integrates signalling cascades that lead to actin polymerization. Nature Cell Biology, 2000, 2, 441-448.	10.3	321
4	Kinesin-dependent movement on microtubules precedes actin-based motility of vaccinia virus. Nature Cell Biology, 2001, 3, 992-1000.	10.3	270
5	Hemoglobins S and C Interfere with Actin Remodeling in Plasmodium falciparum â€“Infected Erythrocytes. Science, 2011, 334, 1283-1286.	12.6	203
6	Surfing pathogens and the lessons learned for actin polymerization. Trends in Cell Biology, 2001, 11, 30-38.	7.9	192
7	Rapid control of protein level in the apicomplexan Toxoplasma gondii. Nature Methods, 2007, 4, 1003-1005.	19.0	185
8	Imaging movement of malaria parasites during transmission by Anopheles mosquitoes. Cellular Microbiology, 2004, 6, 687-694.	2.1	171
9	Plasmodium Sporozoite Motility Is Modulated by the Turnover of Discrete Adhesion Sites. Cell Host and Microbe, 2009, 6, 551-562.	11.0	163
10	Host-cell invasion by malaria parasites: insights from Plasmodium and Toxoplasma. Trends in Parasitology, 2008, 24, 557-563.	3.3	160
11	Grb2 and Nck Act Cooperatively to Promote Actin-Based Motility of Vaccinia Virus. Current Biology, 2002, 12, 740-745.	3.9	135
12	A Dynamin Is Required for the Biogenesis of Secretory Organelles in Toxoplasma gondii. Current Biology, 2009, 19, 277-286.	3.9	124
13	Interactions between Vaccinia Virus IEV Membrane Proteins and Their Roles in IEV Assembly and Actin Tail Formation. Journal of Virology, 1999, 73, 2863-2875.	3.4	118
14	Microneme protein 8 â€“ a new essential invasion factor inToxoplasma gondii. Journal of Cell Science, 2008, 121, 947-956.	2.0	117
15	Functional Analysis of the Leading Malaria Vaccine Candidate AMA-1 Reveals an Essential Role for the Cytoplasmic Domain in the Invasion Process. PLoS Pathogens, 2009, 5, e1000322.	4.7	117
16	Luminal particles within cellular microtubules. Journal of Cell Biology, 2006, 174, 759-765.	5.2	111
17	Vaccinia Virus-Induced Cell Motility Requires F11L-Mediated Inhibition of RhoA Signaling. Science, 2006, 311, 377-381.	12.6	107
18	Tyrosine phosphorylation is required for actin-based motility of vaccinia but not Listeria or Shigella. Current Biology, 1999, 9, 89-S2.	3.9	105

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19	Host Cell Phosphatidylcholine Is a Key Mediator of Malaria Parasite Survival during Liver Stage Infection. Cell Host and Microbe, 2014, 16, 778-786.	11.0	104
20	Are neutrophils important host cells for Leishmania parasites?. Trends in Parasitology, 2009, 25, 505-510.	3.3	99
21	Abl collaborates with Src family kinases to stimulate actin-based motility of vaccinia virus. Cellular Microbiology, 2006, 8, 233-241.	2.1	90
22	Cryoelectron tomography reveals periodic material at the inner side of subpellicular microtubules in apicomplexan parasites. Journal of Experimental Medicine, 2007, 204, 1281-1287.	8.5	86
23	Electron tomography ofPlasmodium falciparummerozoites reveals core cellular events that underpin erythrocyte invasion. Cellular Microbiology, 2013, 15, 1457-1472.	2.1	82
24	Proteomic Analysis of the Plasmodium berghei Gametocyte Egressome and Vesicular bioID of Osmiophilic Body Proteins Identifies Merozoite TRAP-like Protein (MTRAP) as an Essential Factor for Parasite Transmission. Molecular and Cellular Proteomics, 2016, 15, 2852-2862.	3.8	80
25	Positioning of large organelles by a membrane- associated cytoskeleton inPlasmodiumsporozoites. Cellular Microbiology, 2010, 12, 362-371.	2.1	74
26	Comparative cryoâ€electron tomography of pathogenic Lyme disease spirochetes. Molecular Microbiology, 2009, 71, 1415-1434.	2.5	73
27	Multistep adhesion of Plasmodium sporozoites. FASEB Journal, 2010, 24, 2222-2234.	0.5	73
28	Plasmodium Sporozoite Biology. Cold Spring Harbor Perspectives in Medicine, 2017, 7, a025478.	6.2	72
29	Plasmodium gametocytes display homing and vascular transmigration in the host bone marrow. Science Advances, 2018, 4, eaat3775.	10.3	72
30	The Alveolin IMC1h Is Required for Normal Ookinete and Sporozoite Motility Behaviour and Host Colonisation in Plasmodium berghei. PLoS ONE, 2012, 7, e41409.	2.5	71
31	Asynchronous nuclear cycles in multinucleated Plasmodium falciparum facilitate rapid proliferation. Science Advances, 2022, 8, eabj5362.	10.3	70
32	Structural Differences Explain Diverse Functions of Plasmodium Actins. PLoS Pathogens, 2014, 10, e1004091.	4.7	66
33	Active migration and passive transport of malaria parasites. Trends in Parasitology, 2015, 31, 357-362.	3.3	65
34	Automated classification of Plasmodium sporozoite movement patterns reveals a shift towards productive motility during salivary gland infection. Biotechnology Journal, 2009, 4, 903-913.	3.5	63
35	Critical Role for Heat Shock Protein 20 (HSP20) in Migration of Malarial Sporozoites. Journal of Biological Chemistry, 2012, 287, 2410-2422.	3.4	62
36	Leucine 255 of Src couples intramolecular interactions to inhibition of catalysis. Nature Structural Biology, 1999, 6, 760-764.	9.7	61

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37	Microtubule number and length determine cellular shape and function in Plasmodium. EMBO Journal, 2019, 38, e100984.	7.8	59
38	Structural basis for chirality and directional motility ofPlasmodiumsporozoites. Cellular Microbiology, 2012, 14, 1757-1768.	2.1	58
39	Environmental Constraints Guide Migration of Malaria Parasites during Transmission. PLoS Pathogens, 2011, 7, e1002080.	4.7	57
40	Pathways of host cell exit by intracellular pathogens. Microbial Cell, 2018, 5, 525-544.	3.2	56
41	Calcium dynamics ofPlasmodium bergheisporozoite motility. Cellular Microbiology, 2014, 16, 768-783.	2.1	55
42	The Actin Filament-Binding Protein Coronin Regulates Motility in Plasmodium Sporozoites. PLoS Pathogens, 2016, 12, e1005710.	4.7	54
43	Motility precedes egress of malaria parasites from oocysts. ELife, 2017, 6, .	6.0	52
44	The skin as interface in the transmission of arthropod-borne pathogens. Cellular Microbiology, 2007, 9, 1630-1640.	2.1	51
45	A unique profilin-actin interface is important for malaria parasite motility. PLoS Pathogens, 2017, 13, e1006412.	4.7	50
46	In vivo imaging of malaria parasites â€" recent advances and future directions. Current Opinion in Microbiology, 2005, 8, 407-414.	5.1	49
47	A Putative Small Solute Transporter Is Responsible for the Secretion of G377 and TRAP-Containing Secretory Vesicles during Plasmodium Gamete Egress and Sporozoite Motility. PLoS Pathogens, 2016, 12, e1005734.	4.7	49
48	Coupling of Retrograde Flow to Force Production During Malaria Parasite Migration. ACS Nano, 2016, 10, 2091-2102.	14.6	47
49	Invasion factors of apicomplexan parasites: essential or redundant?. Current Opinion in Microbiology, 2013, 16, 438-444.	5.1	46
50	The Plasmodium palmitoyl-S-acyl-transferase DHHC2 is essential for ookinete morphogenesis and malaria transmission. Scientific Reports, 2015, 5, 16034.	3.3	46
51	Oxidative insult can induce malaria-protective trait of sickle and fetal erythrocytes. Nature Communications, 2016, 7, 13401.	12.8	45
52	The Riveting Cellular Structures of Apicomplexan Parasites. Trends in Parasitology, 2020, 36, 979-991.	3.3	45
53	Synergistic and Additive Effects of Epigallocatechin Gallate and Digitonin on Plasmodium Sporozoite Survival and Motility. PLoS ONE, 2010, 5, e8682.	2.5	44
54	Zinc finger nuclease-based double-strand breaks attenuate malaria parasites and reveal rare microhomology-mediated end joining. Genome Biology, 2015, 16, 249.	8.8	43

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55	Plasmodium falciparum coronin organizes arrays of parallel actin filaments potentially guiding directional motility in invasive malaria parasites. Malaria Journal, 2015, 14, 280.	2.3	42
56	Host actin remodeling and protection from malaria by hemoglobinopathies. Trends in Parasitology, 2012, 28, 479-485.	3.3	41
57	Progress in imaging methods: insights gained into Plasmodium biology. Nature Reviews Microbiology, 2017, 15, 37-54.	28.6	41
58	Inter-subunit interactions drive divergent dynamics in mammalian and Plasmodium actin filaments. PLoS Biology, 2018, 16, e2005345.	5.6	41
59	Direct Manipulation of Malaria Parasites with Optical Tweezers Reveals Distinct Functions of Plasmodium Surface Proteins. ACS Nano, 2012, 6, 4648-4662.	14.6	39
60	Geometric constrains for detecting short actin filaments by cryogenic electron tomography. PMC Biophysics, 2010, 3, 6.	2.3	37
61	Intravital imaging of hostâ€“parasite interactions in skin and adipose tissues. Cellular Microbiology, 2019, 21, e13023.	2.1	32
62	Haemoglobin S and C affect the motion of Maurer's clefts inPlasmodium falciparum-infected erythrocytes. Cellular Microbiology, 2013, 15, 1111-1126.	2.1	31
63	Induction of Malaria Parasite Migration by Synthetically Tunable Microenvironments. Nano Letters, 2011, 11, 4468-4474.	9.1	30
64	Time for Genome Editing: Next-Generation Attenuated Malaria Parasites. Trends in Parasitology, 2017, 33, 202-213.	3.3	30
65	Maternally supplied S-acyl-transferase is required for crystalloid organelle formation and transmission of the malaria parasite. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7183-7188.	7.1	28
66	Focusing light on infection in four dimensions. Cellular Microbiology, 2004, 6, 333-343.	2.1	27
67	Imaging today's infectious animalcules. Current Opinion in Microbiology, 2006, 9, 297-306.	5.1	27
68	Malaria parasite LIMP protein regulates sporozoite gliding motility and infectivity in mosquito and mammalian hosts. ELife, 2017, 6, .	6.0	27
69	Using green fluorescent malaria parasites to screen for permissive vector mosquitoes. Malaria Journal, 2006, 5, 23.	2.3	24
70	Rapid quantification of the effects of blotting for correlation of light and cryoâ€light microscopy images. Journal of Microscopy, 2010, 238, 21-26.	1.8	23
71	Tunable Substrates Unveil Chemical Complementation of a Genetic Cell Migration Defect. Advanced Healthcare Materials, 2013, 2, 1162-1169.	7.6	23
72	Highly Dynamic Host Actin Reorganization around Developing Plasmodium Inside Hepatocytes. PLoS ONE, 2012, 7, e29408.	2.5	22

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73	Expression Profiling of Plasmodium berghei HSP70 Genes for Generation of Bright Red Fluorescent Parasites. PLoS ONE, 2013, 8, e72771.	2.5	22
74	Chemical Attenuation of Plasmodium in the Liver Modulates Severe Malaria Disease Progression. Journal of Immunology, 2015, 194, 4860-4870.	0.8	22
75	A Cysteine Protease Inhibitor of Plasmodium berghei Is Essential for Exo-erythrocytic Development. PLoS Pathogens, 2014, 10, e1004336.	4.7	21
76	Key factors regulating Plasmodium berghei sporozoite survival and transformation revealed by an automated visual assay. FASEB Journal, 2010, 24, 5003-5012.	0.5	20
77	Protective efficacy and safety of liver stage attenuated malaria parasites. Scientific Reports, 2016, 6, 26824.	3.3	20
78	Nuclear Pore Complex Components in the Malaria Parasite Plasmodium berghei. Scientific Reports, 2018, 8, 11249.	3.3	19
79	Evolutionarily distant I domains can functionally replace the essential ligand-binding domain of Plasmodium TRAP. ELife, 2020, 9, .	6.0	19
80	Voltage- and ligand-gated ion channels in floor plate neuroepithelia of the rat. Neuroscience, 1998, 85, 1135-1149.	2.3	18
81	Evidence of direct cell-cell fusion in Borrelia by cryogenic electron tomography. Cellular Microbiology, 2011, 13, 731-741.	2.1	18
82	Geometrical model for malaria parasite migration in structured environments. Physical Review E, 2014, 90, 042720.	2.1	18
83	Actin-mediated plasma membrane plasticity of the intracellular parasiteTheileria annulata. Cellular Microbiology, 2012, 14, 1867-1879.	2.1	17
84	In silico identification of genetically attenuated vaccine candidate genes for Plasmodium liver stage. Infection, Genetics and Evolution, 2015, 36, 72-81.	2.3	17
85	A small mitochondrial protein present in myzozoans is essential for malaria transmission. Open Biology, 2016, 6, 160034.	3.6	17
86	Microstructured Blood Vessel Surrogates Reveal Structural Tropism of Motile Malaria Parasites. Advanced Healthcare Materials, 2017, 6, 1601178.	7.6	17
87	Screening for potential prophylactics targeting sporozoite motility through the skin. Malaria Journal, 2018, 17, 319.	2.3	15
88	Intravital microscopy: Imaging hostâ€“parasite interactions in the brain. Cellular Microbiology, 2019, 21, e13024.	2.1	15
89	Tailored environments to study motile cells and pathogens. Cellular Microbiology, 2018, 20, e12820.	2.1	13
90	Malaria parasites differentially sense environmental elasticity during transmission. EMBO Molecular Medicine, 2021, 13, e13933.	6.9	13

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91	Collective migration reveals mechanical flexibility of malaria parasites. Nature Physics, 2022, 18, 586-594.	16.7	13
92	Toolbox for In Vivo Imaging of Hostâ€“Parasite Interactions at Multiple Scales. Trends in Parasitology, 2019, 35, 193-212.	3.3	12
93	Proximityâ€dependent biotinylation approaches to study apicomplexan biology. Molecular Microbiology, 2022, 117, 553-568.	2.5	12
94	Combining proteomics and bioinformatics to explore novel tegumental antigens as vaccine candidates against Echinococcus granulosus infection. Journal of Cellular Biochemistry, 2019, 120, 15320-15336.	2.6	11
95	A function of profilin in force generation during malaria parasite motility independent of actin binding. Journal of Cell Science, 2020, 134, .	2.0	11
96	Key factors regulatingPlasmodium bergheisporozoite survival and transformation revealed by an automated visual assay. FASEB Journal, 2010, 24, 5003-5012.	0.5	11
97	Functional insights into pathogen biology from 3D electron microscopy. FEMS Microbiology Reviews, 2017, 41, 828-853.	8.6	10
98	A synthetic promoter for multi-stage expression to probe complementary functions of Plasmodium adhesins. Journal of Cell Science, 2018, 131, .	2.0	10
99	Phosphorylation of myosin A regulates glidingâ€‰motility and is essential for Plasmodium transmission. EMBO Reports, 2022, 23, e54857.	4.5	9
100	Identification of a Golgi apparatus protein complex important for the asexual erythrocytic cycle of the malaria parasite Plasmodium falciparum. Cellular Microbiology, 2018, 20, e12843.	2.1	8
101	3D imaging of undissected optically cleared Anopheles stephensi mosquitoes and midguts infected with Plasmodium parasites. PLoS ONE, 2020, 15, e0238134.	2.5	8
102	Plasmodium sporozoite disintegration during skin passage limits malaria parasite transmission. EMBO Reports, 2022, 23, e54719.	4.5	8
103	The Plasmodium falciparum Maurer's clefts in 3D. Molecular Microbiology, 2008, 67, 687-691.	2.5	7
104	Linking murine resistance to secondary cystic echinococcosis with antibody responses targeting Echinococcus granulosus tegumental antigens. Immunobiology, 2020, 225, 151916.	1.9	7
105	Retrospective: Birth of the Cool â€“ Imaging and microbiology from Ibn alâ€Haytham to Jean Comandon. Biotechnology Journal, 2009, 4, 787-790.	3.5	6
106	Experimental systems for studying Plasmodium/HIV coinfection. FEBS Letters, 2016, 590, 2000-2013.	2.8	6
107	Discovery of Plasmodium (M)TRAPâ€“Aldolase Interaction Stabilizers Interfering with Sporozoite Motility and Invasion. ACS Infectious Diseases, 2018, 4, 620-634.	3.8	6
108	Immunization efficacy of cryopreserved genetically attenuated Plasmodium berghei sporozoites. Parasitology Research, 2018, 117, 2487-2497.	1.6	6

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109	Functional genetic evaluation of DNA house-cleaning enzymes in the malaria parasite: dUTPase and Ap4AH are essential in Plasmodium berghei but ITPase and NDH are dispensable. Expert Opinion on Therapeutic Targets, 2019, 23, 251-261.	3.4	6
110	Structural analysis of the SRP Alu domain from Plasmodium falciparum reveals a non-canonical open conformation. Communications Biology, 2021, 4, 600.	4.4	5
111	Limited Plasmodium sporozoite gliding motility in the absence of TRAP family adhesins. Malaria Journal, 2021, 20, 430.	2.3	5
112	Surfing Through a Sea of Sharks: Report on the British Society for Cell Biology Meeting on â€˜Signaling and Cytoskeletal Dynamics During Infectionâ€™, October 2-5, 2005, Edinburgh, Scotland. Traffic, 2006, 7, 479-487.	2.7	4
113	Imaging Parasites at Different Scales. Cell Host and Microbe, 2010, 8, 16-19.	11.0	4
114	Nanoscopic Localization of Surface-Exposed Antigens ofBorrelia burgdorferi. Microscopy and Microanalysis, 2015, 21, 680-688.	0.4	4
115	Fluorescent tagging of Plasmodium circumsporozoite protein allows imaging of sporozoite formation but blocks egress from oocysts. Cellular Microbiology, 2021, 23, e13321.	2.1	4
116	Apicomplexans: A conoid ring unites them all. PLoS Biology, 2021, 19, e3001105.	5.6	4
117	Transcellular bloodâ€“brain barrier disruption in malaria-induced reversible brain edema. Life Science Alliance, 2022, 5, e202201402.	2.8	4
118	Understanding Parasite Transmission Through Imaging Approaches. Methods in Enzymology, 2012, 506, 19-33.	1.0	3
119	Plasmodium falciparum parasites exit the infected erythrocyte after haemolysis with saponin and streptolysin O. Parasitology Research, 2020, 119, 4297-4302.	1.6	3
120	Malaria transmission through the mosquito requires the function of the OMD protein. PLoS ONE, 2019, 14, e0222226.	2.5	2
121	Ultrastructural characterization of the tegument in protoscoleces of Echinococcus ortleppi. International Journal for Parasitology, 2021, 51, 989-997.	3.1	2
122	Plasmodium Sporozoite Motility on Flat Substrates. Bio-protocol, 2017, 7, e2395.	0.4	2
123	Local solutions for global problems. EMBO Reports, 2003, 4, 553-555.	4.5	1
124	Editorial: Imaging hostâ€“pathogen interactions. Biotechnology Journal, 2009, 4, 775-775.	3.5	1
125	Biology of the Malaria Parasite - editorial on the special issue for the 10th BioMalPar conference. Cellular Microbiology, 2014, 16, 599-601.	2.1	1
126	Illuminating Plasmodium invasion by lattice-light-sheet microscopy. Trends in Parasitology, 2021, 37, 777-779.	3.3	1

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127	Meeting report: Public health in reverse?. Biotechnology Journal, 2006, 1, 133-134.	3.5	0
128	Cryo-Electron Tomography of Malaria Parasites. Microscopy and Microanalysis, 2009, 15, 864-865.	0.4	0
129	Imaging Motile Pathogens by Light microscopy and Cryo-electron Tomography. Microscopy and Microanalysis, 2009, 15, 80-81.	0.4	0
130	Cell Migration: Tunable Substrates Unveil Chemical Complementation of a Genetic Cell Migration Defect (Adv. Healthcare Mater. 8/2013). Advanced Healthcare Materials, 2013, 2, 1161-1161.	7.6	0
131	Can we stop malaria parasites in the skin?. Malaria Journal, 2014, 13, O7.	2.3	0
132	Plasmodium. , 2016, , 241-284.		0
133	Multi-channel boosting and multi-scale localization-based tracking of dense malarial sporozoites. , 2018, , .		0
134	Gliding motility protein LIMP promotes optimal mosquito midgut traversal and infection by Plasmodium berghei. Molecular and Biochemical Parasitology, 2021, 241, 111347.	1.1	0
135	SPOT: a web-tool enabling swift profiling of transcriptomes. Bioinformatics, 2021, 38, 284-285.	4.1	0
136	An in vitro DNA Sensor-based Assay to Measure Receptor-specific Adhesion Forces of Eukaryotic Cells and Pathogens. Bio-protocol, 2020, 10, e3733.	0.4	0
137	Title is missing!. , 2020, 15, e0238134.		0
138	Title is missing!. , 2020, 15, e0238134.		0
139	Title is missing!. , 2020, 15, e0238134.		0
140	Title is missing!. , 2020, 15, e0238134.		0
141	Still enigmatic: Plasmodium oocysts 125 years after their discovery. Trends in Parasitology, 2022, , .	3.3	0