

# Stephen Muench

## List of Publications by Citations

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106  
papers

3,523  
citations

29  
h-index

56  
g-index

122  
ext. papers

4,302  
ext. citations

6.9  
avg, IF

5.47  
L-index

#	Paper	IF	Citations
106	Polymer-Based Organic Batteries. <i>Chemical Reviews</i> , <b>2016</b> , 116, 9438-84	68.1	677
105	A method for detergent-free isolation of membrane proteins in their local lipid environment. <i>Nature Protocols</i> , <b>2016</b> , 11, 1149-62	18.8	237
104	Triclosan inhibits the growth of Plasmodium falciparum and Toxoplasma gondii by inhibition of apicomplexan Fab I. <i>International Journal for Parasitology</i> , <b>2001</b> , 31, 109-13	4.3	175
103	An introduction to sample preparation and imaging by cryo-electron microscopy for structural biology. <i>Methods</i> , <b>2016</b> , 100, 3-15	4.6	136
102	Cryo-EM structures of complex I from mouse heart mitochondria in two biochemically defined states. <i>Nature Structural and Molecular Biology</i> , <b>2018</b> , 25, 548-556	17.6	124
101	The use of SMALPs as a novel membrane protein scaffold for structure study by negative stain electron microscopy. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>2015</b> , 1848, 496-501	3.8	116
100	Structural divergence of the rotary ATPases. <i>Quarterly Reviews of Biophysics</i> , <b>2011</b> , 44, 311-56	7	106
99	Replace, reuse, recycle: improving the sustainable use of phosphorus by plants. <i>Journal of Experimental Botany</i> , <b>2015</b> , 66, 3523-40	7	92
98	Cryo-electron microscopy of the vacuolar ATPase motor reveals its mechanical and regulatory complexity. <i>Journal of Molecular Biology</i> , <b>2009</b> , 386, 989-99	6.5	87
97	Maternal inheritance and stage-specific variation of the apicoplast in Toxoplasma gondii during development in the intermediate and definitive host. <i>Eukaryotic Cell</i> , <b>2005</b> , 4, 814-26		74
96	Using a SMALP platform to determine a sub-nm single particle cryo-EM membrane protein structure. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>2018</b> , 1860, 378-383	3.8	73
95	Delivery of antimicrobials into parasites. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2003</b> , 100, 14281-6	11.5	65
94	Structural Insight into Eukaryotic Sterol Transport through Niemann-Pick Type C Proteins. <i>Cell</i> , <b>2019</b> , 179, 485-497.e18	56.2	61
93	Identification of T. gondii epitopes, adjuvants, and host genetic factors that influence protection of mice and humans. <i>Vaccine</i> , <b>2010</b> , 28, 3977-89	4.1	59
92	Approaches to altering particle distributions in cryo-electron microscopy sample preparation. <i>Acta Crystallographica Section D: Structural Biology</i> , <b>2018</b> , 74, 560-571	5.5	59
91	Durable proteo-hybrid vesicles for the extended functional lifetime of membrane proteins in bionanotechnology. <i>Chemical Communications</i> , <b>2016</b> , 52, 11020-3	5.8	52
90	A cryo-EM grid preparation device for time-resolved structural studies. <i>IUCrJ</i> , <b>2019</b> , 6, 1024-1031	4.7	42

89	Novel triazine JPC-2067-B inhibits <i>Toxoplasma gondii</i> in vitro and in vivo. <i>PLoS Neglected Tropical Diseases</i> , <b>2008</b> , 2, e190	4.8	42
88	Archazolid A binds to the equatorial region of the c-ring of the vacuolar H <sup>+</sup> -ATPase. <i>Journal of Biological Chemistry</i> , <b>2010</b> , 285, 38304-14	5.4	40
87	Identification and development of novel inhibitors of <i>Toxoplasma gondii</i> enoyl reductase. <i>Journal of Medicinal Chemistry</i> , <b>2010</b> , 53, 6287-300	8.3	40
86	Durable vesicles for reconstitution of membrane proteins in biotechnology. <i>Biochemical Society Transactions</i> , <b>2017</b> , 45, 15-26	5.1	39
85	Non-synonymous single nucleotide polymorphisms in the P2X receptor genes: association with diseases, impact on receptor functions and potential use as diagnosis biomarkers. <i>International Journal of Molecular Sciences</i> , <b>2014</b> , 15, 13344-71	6.3	38
84	Enzymes of type II fatty acid synthesis and apicoplast differentiation and division in <i>Eimeria tenella</i> . <i>International Journal for Parasitology</i> , <b>2007</b> , 37, 33-51	4.3	36
83	The changing landscape of membrane protein structural biology through developments in electron microscopy. <i>Molecular Membrane Biology</i> , <b>2016</b> , 33, 12-22	3.4	34
82	Studies of <i>Toxoplasma gondii</i> and <i>Plasmodium falciparum</i> enoyl acyl carrier protein reductase and implications for the development of antiparasitic agents. <i>Acta Crystallographica Section D: Biological Crystallography</i> , <b>2007</b> , 63, 328-38		34
81	The essential GTPase YphC displays a major domain rearrangement associated with nucleotide binding. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 12355-64	11.5	34
80	Extracellular and Luminal pH Regulation by Vacuolar H <sup>+</sup> -ATPase Isoform Expression and Targeting to the Plasma Membrane and Endosomes. <i>Journal of Biological Chemistry</i> , <b>2016</b> , 291, 8500-15	5.4	30
79	The varied functions of aluminium-activated malate transporters-much more than aluminium resistance. <i>Biochemical Society Transactions</i> , <b>2016</b> , 44, 856-62	5.1	30
78	Structure of the vacuolar H <sup>+</sup> -ATPase rotary motor reveals new mechanistic insights. <i>Structure</i> , <b>2015</b> , 23, 461-471	5.2	29
77	The expanding toolkit for structural biology: synchrotrons, X-ray lasers and cryoEM. <i>IUCrJ</i> , <b>2019</b> , 6, 167-177	17.7	27
76	TRPA1-FGFR2 binding event is a regulatory oncogenic driver modulated by miRNA-142-3p. <i>Nature Communications</i> , <b>2017</b> , 8, 947	17.4	26
75	Novel N-benzoyl-2-hydroxybenzamide disrupts unique parasite secretory pathway. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2012</b> , 56, 2666-82	5.9	26
74	AtSPX1 affects the AtPHR1-DNA-binding equilibrium by binding monomeric AtPHR1 in solution. <i>Biochemical Journal</i> , <b>2017</b> , 474, 3675-3687	3.8	25
73	Molecular basis for resistance of <i>acanthamoeba</i> tubulins to all major classes of antitubulin compounds. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2008</b> , 52, 1133-5	5.9	25
72	Expression, purification and crystallization of the <i>Plasmodium falciparum</i> enoyl reductase. <i>Acta Crystallographica Section D: Biological Crystallography</i> , <b>2003</b> , 59, 1246-8		24

71	Need for Speed: Examining Protein Behavior during CryoEM Grid Preparation at Different Timescales. <i>Structure</i> , <b>2020</b> , 28, 1238-1248.e4	5.2	24
70	PA1b inhibitor binding to subunits c and e of the vacuolar ATPase reveals its insecticidal mechanism. <i>Journal of Biological Chemistry</i> , <b>2014</b> , 289, 16399-408	5.4	22
69	T. gondii RP promoters & knockdown reveal molecular pathways associated with proliferation and cell-cycle arrest. <i>PLoS ONE</i> , <b>2010</b> , 5, e14057	3.7	22
68	Type I and type II fatty acid biosynthesis in Eimeria tenella: enoyl reductase activity and structure. <i>Parasitology</i> , <b>2007</b> , 134, 1949-62	2.7	22
67	Structural Basis for Vascular Endothelial Growth Factor Receptor Activation and Implications for Disease Therapy. <i>Biomolecules</i> , <b>2020</b> , 10,	5.9	22
66	A reconstitution method for integral membrane proteins in hybrid lipid-polymer vesicles for enhanced functional durability. <i>Methods</i> , <b>2018</b> , 147, 142-149	4.6	21
65	ALOX12 in human toxoplasmosis. <i>Infection and Immunity</i> , <b>2014</b> , 82, 2670-9	3.7	21
64	Elucidating the structural basis for differing enzyme inhibitor potency by cryo-EM. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 1795-1800	11.5	20
63	Subunit positioning and stator filament stiffness in regulation and power transmission in the V1 motor of the Manduca sexta V-ATPase. <i>Journal of Molecular Biology</i> , <b>2014</b> , 426, 286-300	6.5	20
62	New paradigms for understanding and step changes in treating active and chronic, persistent apicomplexan infections. <i>Scientific Reports</i> , <b>2016</b> , 6, 29179	4.9	20
61	Artificial membranes for membrane protein purification, functionality and structure studies. <i>Biochemical Society Transactions</i> , <b>2016</b> , 44, 877-82	5.1	20
60	Docking of competitive inhibitors to the P2X7 receptor family reveals key differences responsible for changes in response between rat and human. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2015</b> , 25, 3164-7	2.9	19
59	Design, synthesis, and biological activity of diaryl ether inhibitors of Toxoplasma gondii enoyl reductase. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2013</b> , 23, 2035-43	2.9	19
58	Modification of triclosan scaffold in search of improved inhibitors for enoyl-acyl carrier protein (ACP) reductase in Toxoplasma gondii. <i>ChemMedChem</i> , <b>2013</b> , 8, 1138-60	3.7	19
57	The Acanthamoeba shikimate pathway has a unique molecular arrangement and is essential for aromatic amino acid biosynthesis. <i>Protist</i> , <b>2015</b> , 166, 93-105	2.5	18
56	Methods to account for movement and flexibility in cryo-EM data processing. <i>Methods</i> , <b>2016</b> , 100, 35-41	4.6	18
55	The Vacuolar ATPase - A Nano-scale Motor That Drives Cell Biology. <i>Sub-Cellular Biochemistry</i> , <b>2018</b> , 87, 409-459	5.5	17
54	In situ formation of magnetopolymersomes via electroporation for MRI. <i>Scientific Reports</i> , <b>2015</b> , 5, 14311	4.9	17

53	Spiroindolone that inhibits PfATPase4 is a potent, cidal inhibitor of <i>Toxoplasma gondii</i> tachyzoites in vitro and in vivo. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2014</b> , 58, 1789-92	5.9	17
52	Structure-based identification and characterisation of structurally novel human P2X7 receptor antagonists. <i>Biochemical Pharmacology</i> , <b>2016</b> , 116, 130-9	6	17
51	Cryo-EM Structure and Molecular Dynamics Analysis of the Fluoroquinolone Resistant Mutant of the AcrB Transporter from. <i>Microorganisms</i> , <b>2020</b> , 8,	4.9	16
50	The conservation of phosphate-binding residues among PHT1 transporters suggests that distinct transport affinities are unlikely to result from differences in the phosphate-binding site. <i>Biochemical Society Transactions</i> , <b>2016</b> , 44, 1541-1548	5.1	15
49	X-ray and cryo-EM structures of inhibitor-bound cytochrome complexes for structure-based drug discovery. <i>IUCrJ</i> , <b>2018</b> , 5, 200-210	4.7	14
48	Pi sensing and signalling: from prokaryotic to eukaryotic cells. <i>Biochemical Society Transactions</i> , <b>2016</b> , 44, 766-73	5.1	14
47	Mechanism of inhibition of mouse Slo3 (KCa 5.1) potassium channels by quinine, quinidine and barium. <i>British Journal of Pharmacology</i> , <b>2015</b> , 172, 4355-63	8.6	13
46	Flexibility within the rotor and stators of the vacuolar H <sup>+</sup> -ATPase. <i>PLoS ONE</i> , <b>2013</b> , 8, e82207	3.7	13
45	Sample deposition onto cryo-EM grids: from sprays to jets and back. <i>Acta Crystallographica Section D: Structural Biology</i> , <b>2020</b> , 76, 340-349	5.5	12
44	Human TRPC5 structures reveal interaction of a xanthine-based TRPC1/4/5 inhibitor with a conserved lipid binding site. <i>Communications Biology</i> , <b>2020</b> , 3, 704	6.7	12
43	Understanding the apparent stator-rotor connections in the rotary ATPase family using coarse-grained computer modeling. <i>Proteins: Structure, Function and Bioinformatics</i> , <b>2014</b> , 82, 3298-311	4.2	11
42	Development of a triclosan scaffold which allows for adaptations on both the A- and B-ring for transport peptides. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2013</b> , 23, 3551-5	2.9	11
41	LAT1 (SLC7A5) and CD98hc (SLC3A2) complex dynamics revealed by single-particle cryo-EM. <i>Acta Crystallographica Section D: Structural Biology</i> , <b>2019</b> , 75, 660-669	5.5	11
40	Unprecedented Properties of Phenothiazines Unraveled by a NDH-2 Bioelectrochemical Assay Platform. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 1311-1320	16.4	11
39	SMA-PAGE: A new method to examine complexes of membrane proteins using SMALP nano-encapsulation and native gel electrophoresis. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>2019</b> , 1861, 1437-1445	3.8	10
38	Styrene maleic-acid lipid particles (SMALPs) into detergent or amphipols: An exchange protocol for membrane protein characterisation. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>2020</b> , 1862, 183192	3.8	10
37	Substrate polyspecificity and conformational relevance in ABC transporters: new insights from structural studies. <i>Biochemical Society Transactions</i> , <b>2018</b> , 46, 1475-1484	5.1	10
36	Expression, purification and preliminary crystallographic analysis of the <i>Toxoplasma gondii</i> enoyl reductase. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , <b>2006</b> , 62, 604-6		9

35	Structure-Based Identification and Characterization of Inhibitors of the Epilepsy-Associated K1.1 (KCNT1) Potassium Channel. <i>IScience</i> , <b>2020</b> , 23, 101100	6.1	8
34	Discrimination of potent inhibitors of <i>Toxoplasma gondii</i> enoyl-acyl carrier protein reductase by a thermal shift assay. <i>Biochemistry</i> , <b>2013</b> , 52, 9155-66	3.2	8
33	CSGID Solves Structures and Identifies Phenotypes for Five Enzymes in. <i>Frontiers in Cellular and Infection Microbiology</i> , <b>2018</b> , 8, 352	5.9	8
32	Rotating with the brakes on and other unresolved features of the vacuolar ATPase. <i>Biochemical Society Transactions</i> , <b>2016</b> , 44, 851-5	5.1	7
31	Dimeric structures of quinol-dependent nitric oxide reductases (qNORs) revealed by cryo-electron microscopy. <i>Science Advances</i> , <b>2019</b> , 5, eaax1803	14.3	7
30	Potent Tetrahydroquinolone Eliminates Apicomplexan Parasites. <i>Frontiers in Cellular and Infection Microbiology</i> , <b>2020</b> , 10, 203	5.9	6
29	Conformational changes during human P2X7 receptor activation examined by structural modelling and cysteine-based cross-linking studies. <i>Purinergic Signalling</i> , <b>2017</b> , 13, 135-141	3.8	6
28	The potential use of single-particle electron microscopy as a tool for structure-based inhibitor design. <i>Acta Crystallographica Section D: Structural Biology</i> , <b>2017</b> , 73, 534-540	5.5	5
27	The active form of quinol-dependent nitric oxide reductase from is a dimer. <i>IUCrJ</i> , <b>2020</b> , 7, 404-415	4.7	5
26	Structure of the endocytic adaptor complex reveals the basis for efficient membrane anchoring during clathrin-mediated endocytosis. <i>Nature Communications</i> , <b>2021</b> , 12, 2889	17.4	5
25	Structure of the protective nematode protease complex H-gal-GP and its conservation across roundworm parasites. <i>PLoS Pathogens</i> , <b>2020</b> , 16, e1008465	7.6	5
24	Cryo-EM structure of human mitochondrial HSPD1. <i>IScience</i> , <b>2021</b> , 24, 102022	6.1	5
23	Spherical-supported membranes as platforms for screening against membrane protein targets. <i>Analytical Biochemistry</i> , <b>2018</b> , 549, 58-65	3.1	4
22	The benzimidazole based drugs show good activity against <i>T. gondii</i> but poor activity against its proposed enoyl reductase enzyme target. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2014</b> , 24, 911-6	2.9	4
21	Xanthine-based photoaffinity probes allow assessment of ligand engagement by TRPC5 channels. <i>RSC Chemical Biology</i> , <b>2020</b> , 1, 436-448	3	4
20	Emerging Role of Electron Microscopy in Drug Discovery. <i>Trends in Biochemical Sciences</i> , <b>2019</b> , 44, 897-898.	3	3
19	Cloning, purification and preliminary crystallographic analysis of the <i>Bacillus subtilis</i> GTPase YphC-GDP complex. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , <b>2006</b> , 62, 435-7		3
18	Cryo-EM structures of human TRPC5 reveal interaction of a xanthine-based TRPC1/4/5 inhibitor with a conserved lipid binding site		3

17	A Cryo-EM Grid Preparation Device for Time-Resolved Structural Studies		2
16	Contribution of Val/Ile87 residue in the extracellular domain in agonist-induced current responses of the human and rat P2X7 receptors. <i>Purinergic Signalling</i> , <b>2020</b> , 16, 485-490	3.8	2
15	Characterization of the flexibility of the peripheral stalk of prokaryotic rotary A-ATPases by atomistic simulations. <i>Proteins: Structure, Function and Bioinformatics</i> , <b>2016</b> , 84, 1203-12	4.2	2
14	Cycloalkane-modified amphiphilic polymers provide direct extraction of membrane proteins for CryoEM analysis		2
13	On-grid and in-flow mixing for time-resolved cryo-EM. <i>Acta Crystallographica Section D: Structural Biology</i> , <b>2021</b> , 77, 1233-1240	5.5	2
12	No Longer Hidden Secrets of Proton Pumping: The Resolution Revolution Enlightens V-ATPases. <i>Molecular Cell</i> , <b>2018</b> , 69, 921-922	17.6	1
11	Crystallization and preliminary X-ray crystallographic studies on the class II cholesterol oxidase from Burkholderia cepacia containing bound flavin. <i>Acta Crystallographica Section D: Biological Crystallography</i> , <b>2002</b> , 58, 2182-3		1
10	Cycloalkane-modified amphiphilic polymers provide direct extraction of membrane proteins for CryoEM analysis. <i>Communications Biology</i> , <b>2021</b> , 4, 1337	6.7	1
9	The Growing Role of Electron Microscopy in Anti-parasitic Drug Discovery. <i>Current Medicinal Chemistry</i> , <b>2018</b> , 25, 5279-5290	4.3	1
8	Need for speed: Examining protein behaviour during cryoEM grid preparation at different timescales		1
7	Styrene maleic acid recovers proteins from mammalian cells and tissues while avoiding significant cell death. <i>Scientific Reports</i> , <b>2019</b> , 9, 16408	4.9	1
6	Targeting K1.1 channels in KCNT1-associated epilepsy. <i>Trends in Pharmacological Sciences</i> , <b>2021</b> , 42, 700-713	7.13	1
5	Detergent-Free Functionalization of Hybrid Vesicles with Membrane Proteins Using SMALPs.. <i>Macromolecules</i> , <b>2022</b> , 55, 3415-3422	5.5	1
4	Recent developments in the structural characterisation of the IR and IGF1R: implications for the design of IIRIGF1R hybrid receptor modulators. <i>RSC Medicinal Chemistry</i> ,	3.5	0
3	A Tribute to Stephen Allan Baldwin. <i>Molecular Membrane Biology</i> , <b>2015</b> , 32, 33-4	3.4	
2	Everyone needs good neighbours - the intricate relationship between the acetylcholine-receptor channel and its membrane environment. <i>IUCrJ</i> , <b>2017</b> , 4, 306-307	4.7	
1	Moving in the mesoscale: Understanding the mechanics of cytoskeletal molecular motors by combining mesoscale simulations with imaging. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , e1570	7.9	