

# Matthew Higgins

## List of Publications by Year in descending order

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Version: 2024-02-01

79  
papers

5,093  
citations

101543

36  
h-index

95266

68  
g-index

87  
all docs

87  
docs citations

87  
times ranked

5805  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Heterotypic interactions drive antibody synergy against a malaria vaccine candidate. <i>Nature Communications</i> , 2022, 13, 933.   | 12.8 | 23        |
| 2  | Why it might be bad for brain cells to eat malaria parasites. <i>Journal of Experimental Medicine</i> , 2021, 218, .   | 8.5  | 0         |
| 3  | Structure-Guided Design of a Synthetic Mimic of an Endothelial Protein C Receptor-Binding PfEMP1 Protein. <i>MSphere</i> , 2021, 6, .  | 2.9  | 3         |
| 4  | Can We AlphaFold Our Way Out of the Next Pandemic?. <i>Journal of Molecular Biology</i> , 2021, 433, 167093.   | 4.2  | 20        |
| 5  | High-throughput hit-squad tackles trypanosomes. <i>Trends in Parasitology</i> , 2021, 37, 772-774.   | 3.3  | 1         |
| 6  | Design of a basigin-mimicking inhibitor targeting the malaria invasion protein RH5. <i>Proteins: Structure, Function and Bioinformatics</i> , 2020, 88, 187-195.   | 2.6  | 6         |
| 7  | Staging an Antibody Contest to Fight Malaria. <i>Immunity</i> , 2020, 53, 697-699.   | 14.3 | 0         |
| 8  | Structural basis for RIFIN-mediated activation of LILRB1 in malaria. <i>Nature</i> , 2020, 587, 309-312.   | 27.8 | 30        |
| 9  | Structure of the Inhibited State of the Sec Translocon. <i>Molecular Cell</i> , 2020, 79, 406-415.e7.  | 9.7  | 44        |
| 10 | Structure of the <i>Plasmodium</i> -interspersed repeat proteins of the malaria parasite. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 32098-32104. | 7.1  | 10        |
| 11 | The Structure of the Cysteine-Rich Domain of <i>Plasmodium falciparum</i> P113 Identifies the Location of the RH5 Binding Site. <i>MBio</i> , 2020, 11, .  | 4.1  | 7         |
| 12 | A spike with which to beat COVID-19?. <i>Nature Reviews Microbiology</i> , 2020, 18, 414-414.  | 28.6 | 5         |
| 13 | The RH5-CyRPA-Ripr Complex as a Malaria Vaccine Target. <i>Trends in Parasitology</i> , 2020, 36, 545-559.   | 3.3  | 47        |
| 14 | A receptor for the complement regulator factor H increases transmission of trypanosomes to tsetse flies. <i>Nature Communications</i> , 2020, 11, 1326.  | 12.8 | 23        |
| 15 | Analysis of <i>Plasmodium falciparum</i> Rh2b deletion polymorphism across different transmission areas. <i>Scientific Reports</i> , 2020, 10, 1498.   | 3.3  | 3         |
| 16 | A helminth-derived suppressor of ST2 blocks allergic responses. <i>ELife</i> , 2020, 9, .  | 6.0  | 39        |
| 17 | Structure of the trypanosome transferrin receptor reveals mechanisms of ligand recognition and immune evasion. <i>Nature Microbiology</i> , 2019, 4, 2074-2081.  | 13.3 | 20        |
| 18 | A single dose of antibody-drug conjugate cures a stage 1 model of African trypanosomiasis. <i>PLoS Neglected Tropical Diseases</i> , 2019, 13, e0007373.   | 3.0  | 11        |

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|----|---|------|-----------|
| 19 | Structural basis for inhibition of Plasmodium vivax invasion by a broadly neutralizing vaccine-induced human antibody. <i>Nature Microbiology</i> , 2019, 4, 1497-1507.   | 13.3 | 48        |
| 20 | Functional Comparison of Blood-Stage Plasmodium falciparum Malaria Vaccine Candidate Antigens. <i>Frontiers in Immunology</i> , 2019, 10, 1254.   | 4.8  | 31        |
| 21 | Human Antibodies that Slow Erythrocyte Invasion Potentiate Malaria-Neutralizing Antibodies. <i>Cell</i> , 2019, 178, 216-228.e21.   | 28.9 | 107       |
| 22 | Divergent roles for the RH5 complex components, CyRPA and RIPR in human-infective malaria parasites. <i>PLoS Pathogens</i> , 2019, 15, e1007809.  | 4.7  | 29        |
| 23 | Structural insights into diverse modes of ICAM-1 binding by <i>Plasmodium falciparum</i> -infected erythrocytes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 20124-20134.           | 7.1  | 24        |
| 24 | In silico guided reconstruction and analysis of ICAM-1-binding var genes from Plasmodium falciparum. <i>Scientific Reports</i> , 2018, 8, 3282.   | 3.3  | 4         |
| 25 | A new site of attack for a malaria vaccine. <i>Nature Medicine</i> , 2018, 24, 382-383.   | 30.7 | 5         |
| 26 | The structure of serum resistance-associated protein and its implications for human African trypanosomiasis. <i>Nature Microbiology</i> , 2018, 3, 295-301.   | 13.3 | 21        |
| 27 | Structural basis for recognition of the malaria vaccine candidate Pfs48/45 by a transmission blocking antibody. <i>Nature Communications</i> , 2018, 9, 3822.   | 12.8 | 39        |
| 28 | O-h what a surprise. <i>Nature Microbiology</i> , 2018, 3, 856-857.   | 13.3 | 2         |
| 29 | Malaria Vaccines: Recent Advances and New Horizons. <i>Cell Host and Microbe</i> , 2018, 24, 43-56.   | 11.0 | 234       |
| 30 | Production, quality control, stability, and potency of cGMP-produced Plasmodium falciparum RH5.1 protein vaccine expressed in Drosophila S2 cells. <i>Npj Vaccines</i> , 2018, 3, 32.   | 6.0  | 53        |
| 31 | One-step design of a stable variant of the malaria invasion protein RH5 for use as a vaccine immunogen. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 998-1002.                       | 7.1  | 75        |
| 32 | Accelerating the clinical development of protein-based vaccines for malaria by efficient purification using a four amino acid C-terminal $\alpha$ -C-tag <sup>TM</sup> . <i>International Journal for Parasitology</i> , 2017, 47, 435-446. | 3.1  | 55        |
| 33 | Structure-Guided Identification of a Family of Dual Receptor-Binding PfEMP1 that Is Associated with Cerebral Malaria. <i>Cell Host and Microbe</i> , 2017, 21, 403-414.   | 11.0 | 140       |
| 34 | On the state of crystallography at the dawn of the electron microscopy revolution. <i>Current Opinion in Structural Biology</i> , 2017, 46, 95-101.   | 5.7  | 11        |
| 35 | Towards an anti-disease malaria vaccine. <i>Emerging Topics in Life Sciences</i> , 2017, 1, 539-545.  | 2.6  | 5         |
| 36 | Human vaccination against Plasmodium vivax Duffy-binding protein induces strain-transcending antibodies. <i>JCI Insight</i> , 2017, 2, .  | 5.0  | 78        |

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|----|--|------|-----------|
| 37 | A Receptor's Tale: An Eon in the Life of a Trypanosome Receptor. <i>PLoS Pathogens</i> , 2017, 13, e1006055.   | 4.7  | 27        |
| 38 | The structure of a LAIR1-containing human antibody reveals a novel mechanism of antigen recognition. <i>ELife</i> , 2017, 6, .   | 6.0  | 11        |
| 39 | The structural basis for CD36 binding by the malaria parasite. <i>Nature Communications</i> , 2016, 7, 12837.  | 12.8 | 160       |
| 40 | Production of full-length soluble <i>Plasmodium falciparum</i> RH5 protein vaccine using a <i>Drosophila melanogaster</i> Schneider 2 stable cell line system. <i>Scientific Reports</i> , 2016, 6, 30357.   | 3.3  | 54        |
| 41 | Conformational Selection in a Protein-Protein Interaction Revealed by Dynamic Pathway Analysis. <i>Cell Reports</i> , 2016, 14, 32-42.   | 6.4  | 52        |
| 42 | Evolutionary diversification of the trypanosome haptoglobin-haemoglobin receptor from an ancestral haemoglobin receptor. <i>ELife</i> , 2016, 5, .   | 6.0  | 28        |
| 43 | Structural Conservation Despite Huge Sequence Diversity Allows EPCR Binding by the PfEMP1 Family Implicated in Severe Childhood Malaria. <i>Cell Host and Microbe</i> , 2015, 17, 118-129.   | 11.0 | 141       |
| 44 | Mapping the Binding Site of a Cross-Reactive <i>Plasmodium falciparum</i> PfEMP1 Monoclonal Antibody Inhibitory of ICAM-1 Binding. <i>Journal of Immunology</i> , 2015, 195, 3273-3283.  | 0.8  | 25        |
| 45 | Fragments of Bacterial Endoglycosidase S and Immunoglobulin G Reveal Subdomains of Each That Contribute to Deglycosylation. <i>Journal of Biological Chemistry</i> , 2014, 289, 13876-13889.   | 3.4  | 27        |
| 46 | Evolution of the primate trypanolytic factor APOL1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E2130-9.   | 7.1  | 183       |
| 47 | Sequence variation and structural conservation allows development of novel function and immune evasion in parasite surface protein families. <i>Protein Science</i> , 2014, 23, 354-365.   | 7.6  | 36        |
| 48 | From (+)-epigallocatechin gallate to a simplified synthetic analogue as a cytoadherence inhibitor for <i>P. falciparum</i> . <i>RSC Advances</i> , 2014, 4, 4769-4781.   | 3.6  | 13        |
| 49 | Structure of malaria invasion protein RH5 with erythrocyte basigin and blocking antibodies. <i>Nature</i> , 2014, 515, 427-430.  | 27.8 | 180       |
| 50 | Rosetting <i>Plasmodium falciparum</i> -Infected Erythrocytes Bind to Human Brain Microvascular Endothelial Cells <i>In Vitro</i> , Demonstrating a Dual Adhesion Phenotype Mediated by Distinct <i>P. falciparum</i> Erythrocyte Membrane Protein 1 Domains. <i>Infection and Immunity</i> , 2014, 82, 949-959. | 2.2  | 51        |
| 51 | Structural basis for ligand and innate immunity factor uptake by the trypanosome haptoglobin-haemoglobin receptor. <i>ELife</i> , 2014, 3, e05553.   | 6.0  | 49        |
| 52 | Malaria's deadly grip: cytoadhesion of <i>Plasmodium falciparum</i> -infected erythrocytes. <i>Cellular Microbiology</i> , 2013, 15, 1976-1983.  | 2.1  | 177       |
| 53 | Engineering Hydrophobic Protein's Carbohydrate Interactions to Fine-Tune Monoclonal Antibodies. <i>Journal of the American Chemical Society</i> , 2013, 135, 9723-9732.  | 13.7 | 78        |
| 54 | Severe malaria is associated with parasite binding to endothelial protein C receptor. <i>Nature</i> , 2013, 498, 502-505.  | 27.8 | 460       |

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|----|--|-----|-----------|
| 55 | A Novel Domain Cassette Identifies <i>Plasmodium falciparum</i> PfEMP1 Proteins Binding ICAM-1 and Is a Target of Cross-Reactive, Adhesion-Inhibitory Antibodies. <i>Journal of Immunology</i> , 2013, 190, 240-249.   | 0.8 | 101       |
| 56 | Molecular Architecture of a Complex between an Adhesion Protein from the Malaria Parasite and Intracellular Adhesion Molecule 1. <i>Journal of Biological Chemistry</i> , 2013, 288, 5992-6003.  | 3.4 | 37        |
| 57 | Structure of the trypanosome haptoglobin-hemoglobin receptor and implications for nutrient uptake and innate immunity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 1905-1910.                              | 7.1 | 81        |
| 58 | Tic22 Is an Essential Chaperone Required for Protein Import into the Apicoplast*. <i>Journal of Biological Chemistry</i> , 2012, 287, 39505-39512.   | 3.4 | 54        |
| 59 | Overproduction, purification and crystallization of PfTic22, a component of the import apparatus from the apicoplast of <i>Plasmodium falciparum</i> . <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2012, 68, 351-354.             | 0.7 | 2         |
| 60 | Immunisation with Recombinant PfEMP1 Domains Elicits Functional Rosette-Inhibiting and Phagocytosis-Inducing Antibodies to <i>Plasmodium falciparum</i> . <i>PLoS ONE</i> , 2011, 6, e16414.   | 2.5 | 41        |
| 61 | Structural insights into chondroitin sulfate binding in pregnancy-associated malaria. <i>Biochemical Society Transactions</i> , 2010, 38, 1337-1341.   | 3.4 | 12        |
| 62 | Carbohydrate binding molecules in malaria pathology. <i>Current Opinion in Structural Biology</i> , 2010, 20, 560-566.   | 5.7 | 17        |
| 63 | Chondroitin Sulfate A-Adhering <i>Plasmodium falciparum</i> -Infected Erythrocytes Express Functionally Important Antibody Epitopes Shared by Multiple Variants. <i>Journal of Immunology</i> , 2010, 185, 7553-7561.  | 0.8 | 56        |
| 64 | Full-Length Recombinant <i>Plasmodium falciparum</i> VAR2CSA Binds Specifically to CSPG and Induces Potent Parasite Adhesion-Blocking Antibodies. <i>Journal of Molecular Biology</i> , 2010, 397, 826-834.  | 4.2 | 106       |
| 65 | Structural Comparison of Two CSPG-Binding DBL Domains from the VAR2CSA Protein Important in Malaria during Pregnancy. <i>Journal of Molecular Biology</i> , 2009, 393, 202-213.  | 4.2 | 59        |
| 66 | Overproduction, purification and crystallization of a chondroitin sulfate A-binding DBL domain from a <i>Plasmodium falciparum</i> var2csa-encoded PfEMP1 protein. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2008, 64, 221-223. | 0.7 | 12        |
| 67 | The Structure of a Chondroitin Sulfate-binding Domain Important in Placental Malaria. <i>Journal of Biological Chemistry</i> , 2008, 283, 21842-21846.   | 3.4 | 92        |
| 68 | In Vitro Techniques. , 2006, , 201-378.  |     | 2         |
| 69 | Recoverin Binds Exclusively to an Amphipathic Peptide at the N Terminus of Rhodopsin Kinase, Inhibiting Rhodopsin Phosphorylation without Affecting Catalytic Activity of the Kinase. <i>Journal of Biological Chemistry</i> , 2006, 281, 19426-19432.             | 3.4 | 53        |
| 70 | In Vitro Reconstitution of Discrete Stages of Dynamin-dependent Endocytosis. <i>Methods in Enzymology</i> , 2005, 404, 597-611.  | 1.0 | 4         |
| 71 | Structure of the periplasmic component of a bacterial drug efflux pump. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 9994-9999.   | 7.1 | 243       |
| 72 | Three's company: component structures bring a closer view of tripartite drug efflux pumps. <i>Current Opinion in Structural Biology</i> , 2004, 14, 741-747.   | 5.7 | 132       |

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|----|--|------|-----------|
| 73 | Structure of the Ligand-blocked Periplasmic Entrance of the Bacterial Multidrug Efflux Protein TolC. <i>Journal of Molecular Biology</i> , 2004, 342, 697-702.   | 4.2  | 53        |
| 74 | Oligomerization and activation of the Flil ATPase central to bacterial flagellum assembly. <i>Molecular Microbiology</i> , 2003, 48, 1349-1355.  | 2.5  | 100       |
| 75 | Calnexin co-expression and the use of weaker promoters increase the expression of correctly assembled Shaker potassium channel in insect cells. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2003, 1610, 124-132. | 2.6  | 39        |
| 76 | Snap-shots of clathrin-mediated endocytosis. <i>Trends in Biochemical Sciences</i> , 2002, 27, 257-263.  | 7.5  | 78        |
| 77 | Molecular architecture of a retinal cGMP-gated channel: the arrangement of the cytoplasmic domains. <i>EMBO Journal</i> , 2002, 21, 2087-2094.   | 7.8  | 39        |
| 78 | Simultaneous Binding of PtdIns(4,5)P2 and Clathrin by AP180 in the Nucleation of Clathrin Lattices on Membranes. <i>Science</i> , 2001, 291, 1051-1055.  | 12.6 | 667       |
| 79 | Differential Trafficking and Expression of PIR Proteins in Acute and Chronic Plasmodium Infections. <i>Frontiers in Cellular and Infection Microbiology</i> , 0, 12, .   | 3.9  | 3         |