

# Winfried RÄjmer

## List of Publications by Year in descending order

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Version: 2024-02-01

74  
papers

4,317  
citations

147801

31  
h-index

114465

63  
g-index

87  
all docs

87  
docs citations

87  
times ranked

5173  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Shiga toxin induces tubular membrane invaginations for its uptake into cells. <i>Nature</i> , 2007, 450, 670-675.  | 27.8 | 538       |
| 2  | GM1 structure determines SV40-induced membrane invagination and infection. <i>Nature Cell Biology</i> , 2010, 12, 11-18.   | 10.3 | 535       |
| 3  | Shiga toxins " from cell biology to biomedical applications. <i>Nature Reviews Microbiology</i> , 2010, 8, 105-116.  | 28.6 | 449       |
| 4  | Impedance Analysis and Single-Channel Recordings on Nano-Black Lipid Membranes Based on Porous Alumina. <i>Biophysical Journal</i> , 2004, 86, 955-965.  | 0.5  | 236       |
| 5  | Actin Dynamics Drive Membrane Reorganization and Scission in Clathrin-Independent Endocytosis. <i>Cell</i> , 2010, 140, 540-553.   | 28.9 | 226       |
| 6  | A lipid zipper triggers bacterial invasion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 12895-12900.   | 7.1  | 127       |
| 7  | Red Light-Regulated Reversible Nuclear Localization of Proteins in Mammalian Cells and Zebrafish. <i>ACS Synthetic Biology</i> , 2015, 4, 951-958.   | 3.8  | 105       |
| 8  | Injury-Driven Stiffening of the Dermis Expedites Skin Carcinoma Progression. <i>Cancer Research</i> , 2016, 76, 940-951.   | 0.9  | 96        |
| 9  | Fucose-binding Lectin from Opportunistic Pathogen <i>Burkholderia ambifaria</i> Binds to Both Plant and Human Oligosaccharidic Epitopes. <i>Journal of Biological Chemistry</i> , 2012, 287, 4335-4347.  | 3.4  | 92        |
| 10 | Channel Activity of a Viral Transmembrane Peptide in Micro-BLMs: Vpu1-32 from HIV-1. <i>Journal of the American Chemical Society</i> , 2004, 126, 16267-16274.   | 13.7 | 91        |
| 11 | Lipid Reorganization Induced by Shiga Toxin Clustering on Planar Membranes. <i>PLoS ONE</i> , 2009, 4, e6238.  | 2.5  | 90        |
| 12 | A LecA Ligand Identified from a Galactoside Conjugate Array Inhibits Host Cell Invasion by <i>Pseudomonas aeruginosa</i> . <i>Angewandte Chemie - International Edition</i> , 2014, 53, 8885-8889.   | 13.8 | 85        |
| 13 | Four-dimensional live imaging of apical biosynthetic trafficking reveals a post-Golgi sorting role of apical endosomal intermediates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 4127-4132. | 7.1  | 82        |
| 14 | A first step toward liposome-mediated intracellular bacteriophage therapy. <i>Expert Opinion on Drug Delivery</i> , 2015, 12, 1411-1424.   | 5.0  | 71        |
| 15 | Lectins from opportunistic bacteria interact with acquired variable-region glycans of surface immunoglobulin in follicular lymphoma. <i>Blood</i> , 2015, 125, 3287-3296.  | 1.4  | 66        |
| 16 | Plasma membrane reorganization: A glycolipid gateway for microbes. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2015, 1853, 858-871.   | 4.1  | 65        |
| 17 | Photoreductive Uncaging of Fluorophore in Response to Protein Oligomers by Templated Reaction <i>in Vitro</i> and <i>in Cellulo</i> . <i>Journal of the American Chemical Society</i> , 2012, 134, 20013-20016.                                      | 13.7 | 61        |
| 18 | Biglycan expression in the melanoma microenvironment promotes invasiveness via increased tissue stiffness inducing integrin- $\beta$ 1 expression. <i>Oncotarget</i> , 2017, 8, 42901-42916.   | 1.8  | 60        |

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|----|---|------|-----------|
| 19 | Lipid Cosorting Mediated by Shiga Toxin Induced Tubulation. <i>Traffic</i> , 2010, 11, 1519-1529.   | 2.7  | 56        |
| 20 | Membrane Deformation by Neoelectins with Engineered Glycolipid Binding Sites. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 9267-9270.   | 13.8 | 53        |
| 21 | Influence of Gb3 glycosphingolipids differing in their fatty acid chain on the phase behaviour of solid supported membranes: chemical syntheses and impact of Shiga toxin binding. <i>Chemical Science</i> , 2014, 5, 3104.                     | 7.4  | 48        |
| 22 | Lectin-mediated protocell crosslinking to mimic cell-cell junctions and adhesion. <i>Scientific Reports</i> , 2018, 8, 1932.  | 3.3  | 48        |
| 23 | Functionally different pools of Shiga toxin receptor, globotriaosyl ceramide, in HeLa cells. <i>FEBS Journal</i> , 2006, 273, 5205-5218.  | 4.7  | 43        |
| 24 | Microfluidic approaches for epithelial cell layer culture and characterisation. <i>Analyst, The</i> , 2014, 139, 3206-3218.   | 3.5  | 42        |
| 25 | The <i>Pseudomonas aeruginosa</i> lectin LecA triggers host cell signalling by glycosphingolipid-dependent phosphorylation of the adaptor protein Crkl. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2017, 1864, 1236-1245. | 4.1  | 42        |
| 26 | <i>Pseudomonas aeruginosa</i> lectin LecB inhibits tissue repair processes by triggering $\beta$ -catenin degradation. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2016, 1863, 1106-1118.                                  | 4.1  | 40        |
| 27 | Lipid self-assembly and lectin-induced reorganization of the plasma membrane. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018, 373, 20170117.  | 4.0  | 40        |
| 28 | Reduction of Lectin Valency Drastically Changes Glycolipid Dynamics in Membranes but Not Surface Avidity. <i>ACS Chemical Biology</i> , 2013, 8, 1918-1924.   | 3.4  | 39        |
| 29 | Dynein light chain 1 induces assembly of large Bim complexes on mitochondria that stabilize Mcl-1 and regulate apoptosis. <i>Genes and Development</i> , 2017, 31, 1754-1769.   | 5.9  | 39        |
| 30 | Pathways of protein and lipid receptor-mediated transcytosis in drug delivery. <i>Expert Opinion on Drug Delivery</i> , 2017, 14, 341-351.  | 5.0  | 38        |
| 31 | How synthetic membrane systems contribute to the understanding of lipid-driven endocytosis. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2015, 1853, 2992-3005.   | 4.1  | 35        |
| 32 | Carbohydrate-dependent B cell activation by fucose-binding bacterial lectins. <i>Science Signaling</i> , 2019, 12, .  | 3.6  | 35        |
| 33 | Gb3-binding lectins as potential carriers for transcellular drug delivery. <i>Expert Opinion on Drug Delivery</i> , 2017, 14, 141-153.  | 5.0  | 34        |
| 34 | The <i>Pseudomonas aeruginosa</i> Lectin LecB Causes Integrin Internalization and Inhibits Epithelial Wound Healing. <i>MBio</i> , 2020, 11, .  | 4.1  | 31        |
| 35 | Tailor-made Janus lectin with dual avidity assembles glycoconjugate multilayers and crosslinks protocells. <i>Chemical Science</i> , 2018, 9, 7634-7641.  | 7.4  | 30        |
| 36 | 2-Hydroxy Fatty Acid Enantiomers of Gb 3 Impact Shiga Toxin Binding and Membrane Organization. <i>Biophysical Journal</i> , 2015, 108, 2775-2778.   | 0.5  | 28        |

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|----|--|------|-----------|
| 37 | AGAP2 regulates retrograde transport between early endosomes and the TGN. <i>Journal of Cell Science</i> , 2010, 123, 2381-2390.   | 2.0  | 27        |
| 38 | Sub-cellular localisation of a 15N-labelled peptide vector using NanoSIMS imaging. <i>Applied Surface Science</i> , 2006, 252, 6925-6930.  | 6.1  | 25        |
| 39 | Creating and Modulating Microdomains in Pore-Spanning Membranes. <i>ChemPhysChem</i> , 2012, 13, 108-114.  | 2.1  | 25        |
| 40 | TBC1D8B Mutations Implicate RAB11-Dependent Vesicular Trafficking in the Pathogenesis of Nephrotic Syndrome. <i>Journal of the American Society of Nephrology: JASN</i> , 2019, 30, 2338-2353.                                 | 6.1  | 25        |
| 41 | Induced phagocytic particle uptake into a giant unilamellar vesicle. <i>Soft Matter</i> , 2014, 10, 3667-3678.   | 2.7  | 23        |
| 42 | Structural Diversities of Lectins Binding to the Glycosphingolipid Gb3. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 704685.   | 3.5  | 23        |
| 43 | The Gb3-enriched CD59/flotillin plasma membrane domain regulates host cell invasion by <i>Pseudomonas aeruginosa</i> . <i>Cellular and Molecular Life Sciences</i> , 2021, 78, 3637-3656.                                      | 5.4  | 22        |
| 44 | Glycan-decorated protocells: novel features for rebuilding cellular processes. <i>Interface Focus</i> , 2019, 9, 20180084.   | 3.0  | 21        |
| 45 | Molecular AFM imaging of Hsp70-1A association with dipalmitoyl phosphatidylserine reveals membrane blebbing in the presence of cholesterol. <i>Cell Stress and Chaperones</i> , 2018, 23, 673-683.                             | 2.9  | 20        |
| 46 | Delving into Lipid-Driven Endocytic Mechanisms Using Biomimetic Membranes. <i>Springer Protocols</i> , 2016, , 17-36.  | 0.3  | 19        |
| 47 | Differential recognition of lipid domains by two Gb3-binding lectins. <i>Scientific Reports</i> , 2020, 10, 9752.  | 3.3  | 18        |
| 48 | A Question of Attire: Dressing Up Bacteriophage Therapy for the Battle Against Antibiotic-Resistant Intracellular Bacteria. <i>Springer Science Reviews</i> , 2015, 3, 1-11.   | 1.3  | 17        |
| 49 | 100 Hz ROCS microscopy correlated with fluorescence reveals cellular dynamics on different spatiotemporal scales. <i>Nature Communications</i> , 2022, 13, 1758.   | 12.8 | 16        |
| 50 | Rab12 Localizes to Shiga Toxin-Induced Plasma Membrane Invaginations and Controls Toxin Transport. <i>Traffic</i> , 2014, 15, 772-787.   | 2.7  | 15        |
| 51 | The innate defense antimicrobial peptides hBD3 and RNase7 are induced in human umbilical vein endothelial cells by classical inflammatory cytokines but not Th17 cytokines. <i>Microbes and Infection</i> , 2015, 17, 353-359. | 1.9  | 15        |
| 52 | Multiscale Molecular Dynamics Studies Reveal Different Modes of Receptor Clustering by Gb3-Binding Lectins. <i>Journal of Chemical Theory and Computation</i> , 2021, 17, 2488-2501.   | 5.3  | 15        |
| 53 | Glycans in autophagy, endocytosis and lysosomal functions. <i>Glycoconjugate Journal</i> , 2021, 38, 625-647.  | 2.7  | 15        |
| 54 | Synthesis of Cholesterol-Substituted Glycopeptides for Tailor-Made Glycocalyxification of Artificial Membrane Systems. <i>ChemBioChem</i> , 2016, 17, 1403-1406.   | 2.6  | 14        |

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|----|---|------|-----------|
| 55 | A <i>Chlamydia pneumoniae</i> adhesin induces phosphatidylserine exposure on host cells. <i>Nature Communications</i> , 2019, 10, 4644.   | 12.8 | 13        |
| 56 | The Two Sweet Sides of Janus Lectin Drive Crosslinking of Liposomes to Cancer Cells and Material Uptake. <i>Toxins</i> , 2021, 13, 792.   | 3.4  | 12        |
| 57 | <i>Pseudomonas aeruginosa</i> lectin LecB impairs keratinocyte fitness by abrogating growth factor signalling. <i>Life Science Alliance</i> , 2019, 2, e201900422.  | 2.8  | 11        |
| 58 | Differential induction of innate defense antimicrobial peptides in primary nasal epithelial cells upon stimulation with inflammatory cytokines, Th17 cytokines or bacterial conditioned medium from <i>Staphylococcus aureus</i> isolates. <i>Microbial Pathogenesis</i> , 2016, 90, 69-77. | 2.9  | 10        |
| 59 | Synchronizing Protein Traffic to the Primary Cilium. <i>Frontiers in Genetics</i> , 2019, 10, 163.  | 2.3  | 10        |
| 60 | Binding of SV40's Viral Capsid Protein VP1 to Its Glycosphingolipid Receptor GM1 Induces Negative Membrane Curvature: A Molecular Dynamics Study. <i>Langmuir</i> , 2019, 35, 3534-3544.  | 3.5  | 10        |
| 61 | Quantification of nanoscale forces in lectin-mediated bacterial attachment and uptake into giant liposomes. <i>Nanoscale</i> , 2021, 13, 4016-4028.   | 5.6  | 10        |
| 62 | The Lectin LecA Sensitizes the Human Stretch-Activated Channel TREK-1 but Not Piezo1 and Binds Selectively to Cardiac Non-myocytes. <i>Frontiers in Physiology</i> , 2020, 11, 457.   | 2.8  | 8         |
| 63 | GUV-AP: multifunctional Fiji-based tool for quantitative image analysis of Giant Unilamellar Vesicles. <i>Bioinformatics</i> , 2019, 35, 2340-2342.   | 4.1  | 7         |
| 64 | Involvement of N-glycans in binding of <i>Photobacterium luminescens</i> Tc toxin. <i>Cellular Microbiology</i> , 2021, 23, e13326.   | 2.1  | 7         |
| 65 | Signalling to the nucleus under the control of light and small molecules. <i>Molecular BioSystems</i> , 2016, 12, 345-349.  | 2.9  | 6         |
| 66 | A microfluidic biochip for locally confined stimulation of cells within an epithelial monolayer. <i>RSC Advances</i> , 2018, 8, 7839-7846.  | 3.6  | 6         |
| 67 | Microbial carbohydrate-binding toxins – From etiology to biotechnological application. <i>Biotechnology Advances</i> , 2022, 59, 107951.  | 11.7 | 6         |
| 68 | Metabolic pathway monitoring of phenalinolactone biosynthesis from <i>Streptomyces</i> sp. TÅ¼6071 by liquid chromatography/mass spectrometry coupling. <i>Rapid Communications in Mass Spectrometry</i> , 2014, 28, 1459-1467.   | 1.5  | 5         |
| 69 | Bacterial lectin BambL acts as a B cell superantigen. <i>Cellular and Molecular Life Sciences</i> , 2021, 78, 8165-8186.  | 5.4  | 3         |
| 70 | Aquaporin 5 Expression in Mouse Mammary Gland Cells Is Not Driven by Promoter Methylation. <i>BioMed Research International</i> , 2015, 2015, 1-12.   | 1.9  | 2         |
| 71 | A Label-Free Optical Detection of Pathogens in Isopropanol as a First Step towards Real-Time Infection Prevention. <i>Biosensors</i> , 2021, 11, 2.   | 4.7  | 2         |
| 72 | In-Depth Characterization of a Re-Engineered Cholera Toxin Manufacturing Process Using Growth-Decoupled Production in <i>Escherichia coli</i> . <i>Toxins</i> , 2022, 14, 396.  | 3.4  | 2         |

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|----|---|------|-----------|
| 73 | Biomaterials: Phytochrome-Based Extracellular Matrix with Reversibly Tunable Mechanical Properties (Adv. Mater. 12/2019). Advanced Materials, 2019, 31, 1970083.        | 21.0 | 1         |
| 74 | The Lectin LecB Induces Patches with Basolateral Characteristics at the Apical Membrane to Promote Pseudomonas aeruginosa Host Cell Invasion. MBio, 2022, 13, e0081922. | 4.1  | 1         |