Anant K Menon

List of Publications by Year in Descending Order

114 papers	4,752 citations	40 h-index	67 g-index
132 ext. papers	5,442 ext. citations	7.3 avg, IF	5.98 L-index

#	Paper	IF	Citations
114	Rethinking opsins.. *Molecular Biology and Evolution*, **2022**,	8.3	1
113	Genome-wide CRISPR screen reveals CLPTM1L as a lipid scramblase required for efficient glycosylphosphatidylinositol biosynthesis.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119, e2115083119	11.5	1
112	Unusual mode of dimerization of retinitis pigmentosa-associated F220C rhodopsin. *Scientific Reports*, **2021**, 11, 10536	4.9	1
111	Complexity of the eukaryotic dolichol-linked oligosaccharide scramblase suggested by activity correlation profiling mass spectrometry. *Scientific Reports*, **2021**, 11, 1411	4.9	6
110	Endoplasmic reticulum phospholipid scramblase activity revealed after protein reconstitution into giant unilamellar vesicles containing a photostable lipid reporter. *Scientific Reports*, **2021**, 11, 14364	4.9	2
109	Elimination of GPI2 suppresses glycosylphosphatidylinositol GlcNAc transferase activity and alters GPI glycan modification in Trypanosoma brucei. *Journal of Biological Chemistry*, **2021**, 297, 100977	5.4	2
108	Identification of TbPBN1 in Trypanosoma brucei reveals a conserved heterodimeric architecture for glycosylphosphatidylinositol-mannosyltransferase I. *Molecular Microbiology*, **2021**,	4.1	1
107	A PhotoClick cholesterol-based quantitative proteomics screen for cytoplasmic sterol-binding proteins in Saccharomyces cerevisiae. *Yeast*, **2020**, 37, 15-25	3.4	3
106	Nonenzymatic synthesis of anomerically pure, mannosyl-based molecular probes for scramblase identification studies. *Beilstein Journal of Organic Chemistry*, **2020**, 16, 1732-1739	2.5	0
105	Measurement of Intracellular Sterol Transport in Yeast. *Methods in Molecular Biology*, **2019**, 1949, 115-136	1.4	5
104	Dysregulated calcium homeostasis prevents plasma membrane repair in Anoctamin 5/TMEM16E-deficient patient muscle cells. *Cell Death Discovery*, **2019**, 5, 118	6.9	17
103	Exchange of water for sterol underlies sterol egress from a StARkin domain. *ELife*, **2019**, 8,	8.9	8
102	Structural basis of sterol binding and transport by a yeast StARkin domain. *Journal of Biological Chemistry*, **2018**, 293, 5522-5531	5.4	31
101	Ergosterol is mainly located in the cytoplasmic leaflet of the yeast plasma membrane. *Traffic*, **2018**, 19, 198-214	5.7	40
100	Mechanisms of Lipid Scrambling by the G Protein-Coupled Receptor Opsin. *Structure*, **2018**, 26, 356-367.e3	5.2	35
99	Transbilayer lipid asymmetry. *Current Biology*, **2018**, 28, R386-R391	6.3	59
98	Endoplasmic reticulum-plasma membrane contact sites integrate sterol and phospholipid regulation. *PLoS Biology*, **2018**, 16, e2003864	9.7	83

97	Gating mechanism of the extracellular entry to the lipid pathway in a TMEM16 scramblase. *Nature Communications*, **2018**, 9, 3251	17.4	51
96	TOR complex 2-regulated protein kinase Ypk1 controls sterol distribution by inhibiting StARkin domain-containing proteins located at plasma membrane-endoplasmic reticulum contact sites. *Molecular Biology of the Cell*, **2018**, 29, 2128-2136	3.5	21
95	Structural mapping of fluorescently-tagged, functional nhTMEM16 scramblase in a lipid bilayer. *Journal of Biological Chemistry*, **2018**, 293, 12248-12258	5.4	7
94	A novel assay to measure scrambling of natural phospholipids in reconstituted proteoliposomes. *FASEB Journal*, **2018**, 32, 815.7	0.9	
93	Out-of-the-groove transport of lipids by TMEM16 and GPCR scramblases. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E7033-E7042	11.5	30
92	Scrambling of natural and fluorescently tagged phosphatidylinositol by reconstituted G protein-coupled receptor and TMEM16 scramblases. *Journal of Biological Chemistry*, **2018**, 293, 18318-18327	5.4	11
91	Sterol gradients in cells. *Current Opinion in Cell Biology*, **2018**, 53, 37-43	9	21
90	RFT1 Protein Affects Glycosylphosphatidylinositol (GPI) Anchor Glycosylation. *Journal of Biological Chemistry*, **2017**, 292, 1103-1111	5.4	7
89	Disulfide Bond Formation and N-Glycosylation Modulate Protein-Protein Interactions in GPI-Transamidase (GPIT). *Scientific Reports*, **2017**, 8, 45912	4.9	7
88	Speed Limits for Nonvesicular Intracellular Sterol Transport. *Trends in Biochemical Sciences*, **2017**, 42, 90-97	10.3	46
87	Light-independent phospholipid scramblase activity of bacteriorhodopsin from Halobacterium salinarum. *Scientific Reports*, **2017**, 7, 9522	4.9	14
86	An engineered opsin monomer scrambles phospholipids. *Scientific Reports*, **2017**, 7, 16741	4.9	9
85	flippant-An R package for the automated analysis of fluorescence-based scramblase assays. *BMC Bioinformatics*, **2017**, 18, 146	3.6	
84	Lipid somersaults: Uncovering the mechanisms of protein-mediated lipid flipping. *Progress in Lipid Research*, **2016**, 64, 69-84	14.3	108
83	Dimerization deficiency of enigmatic retinitis pigmentosa-linked rhodopsin mutants. *Nature Communications*, **2016**, 7, 12832	17.4	39
82	The nhTMEM16 Scramblase Is Also a Nonselective Ion Channel. *Biophysical Journal*, **2016**, 111, 1919-1924	4.9	51
81	A Fluorescence-based Assay of Phospholipid Scramblase Activity. *Journal of Visualized Experiments*, **2016**,	1.6	20
80	Intramembrane and Intermembrane Lipid Transport **2016**, 415-436		3

79	Lipid topogenesis--35years on. *Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids*, **2016**, 1861, 757-766	5	18
78	Phospholipid scrambling by rhodopsin. *Photochemical and Photobiological Sciences*, **2015**, 14, 1922-31	4.2	30
77	Phosphatidylserine translocation at the yeast trans-Golgi network regulates protein sorting into exocytic vesicles. *Molecular Biology of the Cell*, **2015**, 26, 4674-85	3.5	43
76	Structural biology: Lipid gymnastics. *Nature*, **2015**, 524, 420-2	50.4	2
75	Cell biology: Countercurrents in lipid flow. *Nature*, **2015**, 525, 191-2	50.4	6
74	A new family of StART domain proteins at membrane contact sites has a role in ER-PM sterol transport. *ELife*, **2015**, 4,	8.9	171
73	Lipid landscapes and pipelines in membrane homeostasis. *Nature*, **2014**, 510, 48-57	50.4	523
72	Constitutive phospholipid scramblase activity of a G protein-coupled receptor. *Nature Communications*, **2014**, 5, 5115	17.4	78
71	Arv1 regulates PM and ER membrane structure and homeostasis but is dispensable for intracellular sterol transport. *Traffic*, **2013**, 14, 912-21	5.7	24
70	Ca2+-dependent phospholipid scrambling by a reconstituted TMEM16 ion channel. *Nature Communications*, **2013**, 4, 2367	17.4	169
69	A protein pair with PIPs inside. *Structure*, **2013**, 21, 1070-1	5.2	4
68	Glycoprotein biosynthesis in a eukaryote lacking the membrane protein Rft1. *Journal of Biological Chemistry*, **2013**, 288, 20616-23	5.4	22
67	Reconstitution of glucosylceramide flip-flop across endoplasmic reticulum: implications for mechanism of glycosphingolipid biosynthesis. *Journal of Biological Chemistry*, **2012**, 287, 15523-32	5.4	29
66	A detour for yeast oxysterol binding proteins. *Journal of Biological Chemistry*, **2012**, 287, 11481-8	5.4	57
65	Biochemical reconstitution and resolution of lipid flippase activities required for protein glycosylation in the ER. *FASEB Journal*, **2012**, 26, 349.2	0.9	
64	Phospholipid Flip-Flop in Biogenic Membranes **2011**, 97-118		
63	Osh proteins regulate membrane sterol organization but are not required for sterol movement between the ER and PM. *Traffic*, **2011**, 12, 1341-55	5.7	103
62	Opsin is a phospholipid flippase. *Current Biology*, **2011**, 21, 149-53	6.3	113

61	Stereoselective transbilayer translocation of mannosyl phosphoryl dolichol by an endoplasmic reticulum flippase. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 11289-94	11.5	41
60	Tritium suicide selection identifies proteins involved in the uptake and intracellular transport of sterols in Saccharomyces cerevisiae. *Eukaryotic Cell*, **2009**, 8, 161-9		25
59	Specific transbilayer translocation of dolichol-linked oligosaccharides by an endoplasmic reticulum flippase. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 767-72	11.5	48
58	Chapter 8 Split Topology of GPI Biosynthesis. *The Enzymes*, **2009**, 151-158	2.3	1
57	Yeast oxysterol-binding proteins: sterol transporters or regulators of cell polarization?. *Molecular and Cellular Biochemistry*, **2009**, 326, 9-13	4.2	21
56	Flipping lipids: why anSwhat'S the reason for?. *ACS Chemical Biology*, **2009**, 4, 895-909	4.9	105
55	Chapter 7 Attachment of a GPI Anchor to Protein. *The Enzymes*, **2009**, 26, 133-149	2.3	1
54	Does Rft1 flip an N-glycan lipid precursor?. *Nature*, **2008**, 454, E3-4; discussion E4-5	50.4	56
53	Lipid modifications of proteins **2008**, 39-58		2
52	Distinct flippases translocate glycerophospholipids and oligosaccharide diphosphate dolichols across the endoplasmic reticulum. *Biochemistry*, **2008**, 47, 7937-46	3.2	70
51	Candida drug resistance protein 1, a major multidrug ATP binding cassette transporter of Candida albicans, translocates fluorescent phospholipids in a reconstituted system. *Biochemistry*, **2007**, 46, 12081-90	3.2	23
50	HeLa cell entry by guanidinium-rich beta-peptides: importance of specific cation-cell surface interactions. *ChemBioChem*, **2007**, 8, 917-26	3.8	50
49	De novo sphingolipid synthesis is essential for viability, but not for transport of glycosylphosphatidylinositol-anchored proteins, in African trypanosomes. *Eukaryotic Cell*, **2007**, 6, 454-64		38
48	Flip-flop of fluorescently labeled phospholipids in proteoliposomes reconstituted with Saccharomyces cerevisiae microsomal proteins. *Eukaryotic Cell*, **2007**, 6, 1625-34		36
47	Thematic review series: lipid posttranslational modifications. GPI anchoring of protein in yeast and mammalian cells, or: how we learned to stop worrying and love glycophospholipids. *Journal of Lipid Research*, **2007**, 48, 993-1011	6.3	290
46	A flip-flop switch in polarity signaling. *Developmental Cell*, **2007**, 13, 607-608	10.2	3
45	Intracellular sterol transport and distribution. *Current Opinion in Cell Biology*, **2006**, 18, 379-85	9	105
44	Regulation of surface coat exchange by differentiating African trypanosomes. *Molecular and Biochemical Parasitology*, **2006**, 147, 211-23	1.9	37

43	Ethanolamine phosphate linked to the first mannose residue of glycosylphosphatidylinositol (GPI) lipids is a major feature of the GPI structure that is recognized by human GPI transamidase. *Journal of Biological Chemistry*, **2006**, 281, 38358-64	5.4	12
42	New fluorescent probes reveal that flippase-mediated flip-flop of phosphatidylinositol across the endoplasmic reticulum membrane does not depend on the stereochemistry of the lipid. *Organic and Biomolecular Chemistry*, **2005**, 3, 1275-83	3.9	52
41	Transport of newly synthesized sterol to the sterol-enriched plasma membrane occurs via nonvesicular equilibration. *Biochemistry*, **2005**, 44, 5816-26	3.2	173
40	Effects of conformational stability and geometry of guanidinium display on cell entry by beta-peptides. *Journal of the American Chemical Society*, **2005**, 127, 3686-7	16.4	90
39	Flip-flop of glycosylphosphatidylinositols (GPI-s) across the ER. *Chemical Communications*, **2005**, 453-5	5.8	47
38	Endoplasmic reticulum localization of Gaa1 and PIG-T, subunits of the glycosylphosphatidylinositol transamidase complex. *Journal of Biological Chemistry*, **2005**, 280, 16402-9	5.4	8
37	Subcellular localization and targeting of N-acetylglucosaminyl phosphatidylinositol de-N-acetylase, the second enzyme in the glycosylphosphatidylinositol biosynthetic pathway. *Journal of Biological Chemistry*, **2004**, 279, 15743-51	5.4	19
36	A conserved proline in the last transmembrane segment of Gaa1 is required for glycosylphosphatidylinositol (GPI) recognition by GPI transamidase. *Journal of Biological Chemistry*, **2004**, 279, 6540-5	5.4	31
35	Chemical modification identifies two populations of glycerophospholipid flippase in rat liver ER. *Biochemistry*, **2004**, 43, 10710-8	3.2	52
34	Glycosylphosphatidylinositol (GPI) Anchors **2004**, 308-311		1
33	Reconstitution and assay of biogenic membrane-derived phospholipid flippase activity in proteoliposomes. *Methods in Molecular Biology*, **2003**, 228, 271-9	1.4	7
32	Comparative importance in vivo of conserved glutamate residues in the EX7E motif retaining glycosyltransferase Gpi3p, the UDP-GlcNAc-binding subunit of the first enzyme in glycosylphosphatidylinositol assembly. *FEBS Journal*, **2003**, 270, 4507-14		17
31	Cytoplasmic and nuclear delivery of a TAT-derived peptide and a beta-peptide after endocytic uptake into HeLa cells. *Journal of Biological Chemistry*, **2003**, 278, 50188-94	5.4	189
30	Transbilayer movement of dipalmitoylphosphatidylcholine in proteoliposomes reconstituted from detergent extracts of endoplasmic reticulum. Kinetics of transbilayer transport mediated by a single flippase and identification of protein fractions enriched in flippase activity. *Journal of Biological Chemistry*, **2002**, 277, 25337-43	5.4	44
29	Structural requirements for the recruitment of Gaa1 into a functional glycosylphosphatidylinositol transamidase complex. *Journal of Biological Chemistry*, **2002**, 277, 30535-42	5.4	38
28	Chapter 2 Lipid modifications of proteins. *New Comprehensive Biochemistry*, **2002**, 37-54		1
27	Reconstitution of phospholipid flippase activity from E. coli inner membrane: a test of the protein translocon as a candidate flippase. *Biological Chemistry*, **2002**, 383, 1435-40	4.5	8
26	Transbilayer movement of fluorescent phospholipid analogues in the cytoplasmic membrane of Escherichia coli. *Biochemistry*, **2002**, 41, 5605-12	3.2	46

25	Introduction: lipid transport--an overview. *Seminars in Cell and Developmental Biology*, **2002**, 13, 159-62	7.5	5
24	Endoplasmic reticulum proteins involved in glycosylphosphatidylinositol-anchor attachment: photocrosslinking studies in a cell-free system. *FEBS Journal*, **2001**, 268, 2290-300		31
23	Photoaffinity labelling with P3-(4-azidoanilido)uridine 5?-triphosphate identifies Gpi3p as the UDP-GlcNAc-binding subunit of the enzyme that catalyses formation of GlcNAc-phosphatidylinositol, the first glycolipid intermediate in glycosylphosphatidylinositol synthesis. *Biochemical Journal*, **2000**, 350, 815	3.8	11
22	Soluble GPI8 restores glycosylphosphatidylinositol anchoring in a trypanosome cell-free system depleted of lumenal endoplasmic reticulum proteins. *Biochemical Journal*, **2000**, 351, 717	3.8	5
21	Photoaffinity labelling with P3-(4-azidoanilido)uridine 5?-triphosphate identifies Gpi3p as the UDP-GlcNAc-binding subunit of the enzyme that catalyses formation of GlcNAc-phosphatidylinositol, the first glycolipid intermediate in glycosylphosphatidylinositol synthesis. *Biochemical Journal*, **2000**, 350, 815-822	3.8	35
20	Soluble GPI8 restores glycosylphosphatidylinositol anchoring in a trypanosome cell-free system depleted of lumenal endoplasmic reticulum proteins. *Biochemical Journal*, **2000**, 351, 717-722	3.8	29
19	Specific proteins are required to translocate phosphatidylcholine bidirectionally across the endoplasmic reticulum. *Current Biology*, **2000**, 10, 241-52	6.3	90
18	Cell surface display and intracellular trafficking of free glycosylphosphatidylinositols in mammalian cells. *Journal of Biological Chemistry*, **2000**, 275, 7378-89	5.4	44
17	Reconstitution and partial characterization of phospholipid flippase activity from detergent extracts of the Bacillus subtilis cell membrane. *Journal of Bacteriology*, **2000**, 182, 4198-206	3.5	45
16	Recent developments in the cell biology and biochemistry of glycosylphosphatidylinositol lipids (review). *Molecular Membrane Biology*, **2000**, 17, 1-16	3.4	117
15	Segregation of glycosylphosphatidylinositol biosynthetic reactions in a subcompartment of the endoplasmic reticulum. *Journal of Biological Chemistry*, **1999**, 274, 15203-12	5.4	54
14	A cell-free assay for glycosylphosphatidylinositol anchoring in African trypanosomes. Demonstration of a transamidation reaction mechanism. *Journal of Biological Chemistry*, **1999**, 274, 16479-86	5.4	55
13	Identification and purification of the rat liver Golgi membrane UDP-N-acetylgalactosamine transporter. *Journal of Biological Chemistry*, **1999**, 274, 4474-9	5.4	40
12	Identification of endoplasmic reticulum proteins involved in glycan assembly: synthesis and characterization of P3-(4-azidoanilido)uridine 5Striphosphate, a membrane-topological photoaffinity probe for uridine diphosphate-sugar binding proteins. *Biochemical Journal*, **1998**, 333 (Pt 3), 661-9	3.8	6
11	Transbilayer movement of fluorescent phospholipids in Bacillus megaterium membrane vesicles. *Biochemistry*, **1997**, 36, 4969-78	3.2	58
10	Phosphatidylinositol hydrolysis by Trypanosoma brucei glycosylphosphatidylinositol phospholipase C. *Journal of Biological Chemistry*, **1996**, 271, 15533-41	5.4	36
9	Nonpolarized distribution of glycosylphosphatidylinositols in the plasma membrane of polarized Madin-Darby canine kidney cells. *Journal of Biological Chemistry*, **1995**, 270, 24150-5	5.4	35
8	Biosynthesis of glycosylphosphatidylinositol anchors. *Methods in Enzymology*, **1995**, 250, 513-35	1.7	17

7	Molecular species analysis of phospholipids from Trypanosoma brucei bloodstream and procyclic forms. *Molecular and Biochemical Parasitology*, **1993**, 58, 97-105	1.9	69
6	BIOSYNTHESIS OF GLYCOSYL-PHOSPHATIDYLINOSITOL **1992**, 155-169		1
5	Biosynthesis of Glycolipid Anchors in Trypanosoma brucei.. *Trends in Glycoscience and Glycotechnology*, **1991**, 3, 107-115	0.1	5
4	Biosynthesis of the glycolipid membrane anchor of Trypanosoma brucei variant surface glycoproteins: involvement of Dol-P-Man. *Biochemical Society Transactions*, **1989**, 17, 746-748	5.1	19
3	Glycolipid precursor of Trypanosoma brucei variant surface glycoproteins: incorporation of radiolabelled mannose and myristic acid in a cell-free system. *Biochemical Society Transactions*, **1988**, 16, 996-997	5.1	11
2	Functions of Glycosyl Phosphatidylinositols757-769		1
1	Phylogenetic profiling identifies glucosyl-phosphoryl dolichol scramblase candidates		1