Anthony Carruthers

List of Publications by Year in Descending Order

57 papers	2,970 citations	31 h-index	54 g-index
58 ext. papers	3,213 ext. citations	5.1 avg, IF	5.07 L-index

#	Paper	IF	Citations
57	Do Skeletal Dynamics Mediate Sugar Uptake and Transport in Human Erythrocytes?. *Biophysical Journal*, **2018**, 114, 1440-1454	2.9	3
56	Kinetic Basis of Cis- and Trans-Allostery in GLUT1-Mediated Sugar Transport. *Journal of Membrane Biology*, **2018**, 251, 131-152	2.3	2
55	Red wine and green tea flavonoids are -allosteric activators and competitive inhibitors of glucose transporter 1 (GLUT1)-mediated sugar uptake. *Journal of Biological Chemistry*, **2018**, 293, 19823-19834	5.4	17
54	Reconciling contradictory findings: Glucose transporter 1 (GLUT1) functions as an oligomer of allosteric, alternating access transporters. *Journal of Biological Chemistry*, **2017**, 292, 21035-21046	5.4	16
53	WZB117 (2-Fluoro-6-(m-hydroxybenzoyloxy) Phenyl m-Hydroxybenzoate) Inhibits GLUT1-mediated Sugar Transport by Binding Reversibly at the Exofacial Sugar Binding Site. *Journal of Biological Chemistry*, **2016**, 291, 26762-26772	5.4	43
52	A novel model for brain iron uptake: introducing the concept of regulation. *Journal of Cerebral Blood Flow and Metabolism*, **2015**, 35, 48-57	7.3	82
51	Caffeine inhibits glucose transport by binding at the GLUT1 nucleotide-binding site. *American Journal of Physiology - Cell Physiology*, **2015**, 308, C827-34	5.4	17
50	Acute Stimulation of GLUT1 Cell Surface Localization in Blood-Brain Barrier Endothelial Cells. *FASEB Journal*, **2015**, 29, 574.13	0.9	
49	Human erythrocytes transport dehydroascorbic acid and sugars using the same transporter complex. *American Journal of Physiology - Cell Physiology*, **2014**, 306, C910-7	5.4	24
48	Sequence determinants of GLUT1 oligomerization: analysis by homology-scanning mutagenesis. *Journal of Biological Chemistry*, **2013**, 288, 20734-44	5.4	36
47	Role of monosaccharide transport proteins in carbohydrate assimilation, distribution, metabolism, and homeostasis. *Comprehensive Physiology*, **2012**, 2, 863-914	7.7	99
46	AMP kinase regulation of sugar transport in brain capillary endothelial cells during acute metabolic stress. *American Journal of Physiology - Cell Physiology*, **2012**, 303, C806-14	5.4	22
45	Sequence determinants of GLUT1-mediated accelerated-exchange transport: analysis by homology-scanning mutagenesis. *Journal of Biological Chemistry*, **2012**, 287, 42533-44	5.4	17
44	Response to Rcomment on recent modeling studies of astrocyte-neuron metabolic interactionsR much ado about nothing. *Journal of Cerebral Blood Flow and Metabolism*, **2011**, 31, 1346-53	7.3	73
43	Determinants of ligand binding affinity and cooperativity at the GLUT1 endofacial site. *Biochemistry* , **2011**, 50, 3137-48	3.2	12
42	Acute modulation of sugar transport in brain capillary endothelial cell cultures during activation of the metabolic stress pathway. *Journal of Biological Chemistry*, **2010**, 285, 15430-15439	5.4	22
41	alpha- and beta-monosaccharide transport in human erythrocytes. *American Journal of Physiology - Cell Physiology*, **2009**, 296, C151-61	5.4	20

40	Will the original glucose transporter isoform please stand up!. *American Journal of Physiology - Endocrinology and Metabolism*, **2009**, 297, E836-48	6	133
39	The in vivo neuron-to-astrocyte lactate shuttle in human brain: evidence from modeling of measured lactate levels during visual stimulation. *Journal of Neurochemistry*, **2009**, 109 Suppl 1, 55-62	6	142
38	Altered GLUT1 substrate selectivity in human erythropoiesis?. *Cell*, **2009**, 137, 200-1; author reply 201-2	56.2	6
37	Evidence for interindividual heterogeneity in the glucose gradient across the human red blood cell membrane and its relationship to hemoglobin glycation. *Diabetes*, **2008**, 57, 2445-52	0.9	97
36	Analysis of glucose transporter topology and structural dynamics. *Journal of Biological Chemistry*, **2008**, 283, 36416-24	5.4	21
35	Supply and demand in cerebral energy metabolism: the role of nutrient transporters. *Journal of Cerebral Blood Flow and Metabolism*, **2007**, 27, 1766-91	7.3	574
34	ATP-dependent sugar transport complexity in human erythrocytes. *American Journal of Physiology - Cell Physiology*, **2007**, 292, C974-86	5.4	23
33	Structural basis of GLUT1 inhibition by cytoplasmic ATP. *Journal of General Physiology*, **2007**, 130, 157-68	3.4	54
32	Structural Basis of GLUT1 Inhibition by Cytoplasmic ATP. *Journal of Cell Biology*, **2007**, 178, i6-i6	7.3	
31	Atypical GLUT1 deficiency with prominent movement disorder responsive to ketogenic diet. *Movement Disorders*, **2006**, 21, 241-5	7	69
30	Quench-flow analysis reveals multiple phases of GluT1-mediated sugar transport. *Biochemistry*, **2005**, 44, 2650-60	3.2	21
29	Properties of the human erythrocyte glucose transport protein are determined by cellular context. *Biochemistry*, **2005**, 44, 5606-16	3.2	20
28	Conventional transport assays underestimate sugar transport rates in human red cells. *Blood Cells, Molecules, and Diseases*, **2004**, 32, 401-7	2.1	5
27	Molecular determinants of sugar transport regulation by ATP. *Biochemistry*, **2002**, 41, 12629-38	3.2	48
26	Sugar transporter regulation by ATP and quaternary structure. *Blood Cells, Molecules, and Diseases*, **2001**, 27, 102-7	2.1	13
25	Alanine scanning mutagenesis of the human erythrocyte glucose transporter putative ATP binding domain. *Blood Cells, Molecules, and Diseases*, **2001**, 27, 139-42	2.1	6
24	The red blood cell glucose transporter presents multiple, nucleotide-sensitive sugar exit sites. *Biochemistry*, **2001**, 40, 15549-61	3.2	45
23	ATP-dependent substrate occlusion by the human erythrocyte sugar transporter. *Biochemistry*, **2000**, 39, 3005-14	3.2	58

22	The human erythrocyte sugar transporter presents two sugar import sites. *Biochemistry*, **1999**, 38, 16974-83	3.2	52
21	Stop-flow analysis of cooperative interactions between GLUT1 sugar import and export sites. *Biochemistry*, **1999**, 38, 6640-50	3.2	30
20	Structural and physiologic determinants of human erythrocyte sugar transport regulation by adenosine triphosphate. *Biochemistry*, **1998**, 37, 12221-32	3.2	57
19	Regulation of GLUT1-mediated sugar transport by an antiport/uniport switch mechanism. *Biochemistry*, **1996**, 35, 13231-9	3.2	36
18	Human erythrocyte sugar transport is incompatible with available carrier models. *Biochemistry*, **1996**, 35, 10411-21	3.2	64
17	Glucose transporter function is controlled by transporter oligomeric structure. A single, intramolecular disulfide promotes GLUT1 tetramerization. *Biochemistry*, **1995**, 34, 9734-47	3.2	115
16	Rapid substrate translocation by the multisubunit, erythroid glucose transporter requires subunit associations but not cooperative ligand binding. *Biochemistry*, **1995**, 34, 9762-73	3.2	26
15	Net sugar transport is a multistep process. Evidence for cytosolic sugar binding sites in erythrocytes. *Biochemistry*, **1995**, 34, 15395-406	3.2	47
14	Role of glucose carrier in human erythrocyte water permeability. *Biochemistry*, **1992**, 31, 589-96	3.2	45
13	Uniporters and anion antiporters. *Current Opinion in Cell Biology*, **1991**, 3, 702-9	9	9
12	Cholate-solubilized erythrocyte glucose transporters exist as a mixture of homodimers and homotetramers. *Biochemistry*, **1991**, 30, 4654-8	3.2	76
11	Mechanisms for the facilitated diffusion of substrates across cell membranes. *Biochemistry*, **1991**, 30, 3898-906	3.2	47
10	Inhibitions of sugar transport produced by ligands binding at opposite sides of the membrane. Evidence for simultaneous occupation of the carrier by maltose and cytochalasin B. *Biochemistry*, **1991**, 30, 3907-15	3.2	77
9	The human erythrocyte sugar transporter is also a nucleotide binding protein. *Biochemistry*, **1989**, 28, 8337-46	3.2	70
8	Characterization of two independent modes of action of ATP on human erythrocyte sugar transport. *Biochemistry*, **1989**, 28, 6410-7	3.2	39
7	Analysis of protein-mediated 3-O-methylglucose transport in rat erythrocytes: rejection of the alternating conformation carrier model for sugar transport. *Biochemistry*, **1989**, 28, 4580-94	3.2	42
6	Modulation of red blood cell sugar transport by lyso-lipid. *Biochimica Et Biophysica Acta - Biomembranes*, **1989**, 985, 173-83	3.8	9
5	The glucose transporter reconsidered. *Trends in Biochemical Sciences*, **1988**, 13, 426-8	10.3	6

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4	Anomalous asymmetric kinetics of human red cell hexose transfer: role of cytosolic adenosine 5Rtriphosphate. *Biochemistry*, **1986**, 25, 3592-602	3.2	62
3	Reconstituted human erythrocyte sugar transporter activity is determined by bilayer lipid head groups. *Biochemistry*, **1986**, 25, 3709-18	3.2	43
2	How bilayer lipids affect membrane protein activity. *Trends in Biochemical Sciences*, **1986**, 11, 331-335	10.3	143
1	Effects of bilayer cholesterol on human erythrocyte hexose transport protein activity in synthetic lecithin bilayers. *Biochemistry*, **1985**, 24, 2865-73	3.2	35