Steven G Ball

List of Publications by Year in Descending Order

106 papers	11,026 citations	46 h-index	105 g-index
110 ext. papers	12,241 ext. citations	8.9 avg, IF	5.46 L-index

#	Paper	IF	Citations
106	Acute Illness and Death in Children With Adrenal Insufficiency. *Frontiers in Endocrinology*, **2021**, 12, 757566	5.7	0
105	Retracing Storage Polysaccharide Evolution in Stramenopila. *Frontiers in Plant Science*, **2021**, 12, 629045	6.2	1
104	Conservation of the glycogen metabolism pathway underlines a pivotal function of storage polysaccharides in Chlamydiae. *Communications Biology*, **2021**, 4, 296	6.7	2
103	Single stage hand assisted laparoscopic and trans thoracic excision of multifocal paraaortic and cardiac paragangliomas. *Journal of Surgical Case Reports*, **2019**, 2019, rjz169	0.6	
102	Analysis of an improved Cyanophora paradoxa genome assembly. *DNA Research*, **2019**, 26, 287-299	4.5	18
101	Reconstruction of the sialylation pathway in the ancestor of eukaryotes. *Scientific Reports*, **2018**, 8, 2946	4.9	11
100	Crystal Structures of the atalytic omain of Starch Synthase IV, of Granule Bound Starch Synthase From CLg1 and of Granule Bound Starch Synthase I of Illustrate Substrate Recognition in Starch Synthases. *Frontiers in Plant Science*, **2018**, 9, 1138	6.2	7
99	Control of Starch Biosynthesis in Vascular Plants and Algae **2018**, 258-289		
98	Host-pathogen biotic interactions shaped vitamin K metabolism in Archaeplastida. *Scientific Reports* , **2018**, 8, 15243	4.9	9
97	Biotic Host-Pathogen Interactions As Major Drivers of Plastid Endosymbiosis. *Trends in Plant Science*, **2017**, 22, 316-328	13.1	28
96	Bound Substrate in the Structure of Cyanobacterial Branching Enzyme Supports a New Mechanistic Model. *Journal of Biological Chemistry*, **2017**, 292, 5465-5475	5.4	26
95	Biotic interactions as drivers of algal origin and evolution. *New Phytologist*, **2017**, 216, 670-681	9.8	18
94	Extreme genome diversity in the hyper-prevalent parasitic eukaryote Blastocystis. *PLoS Biology*, **2017**, 15, e2003769	9.7	58
93	Gasping for air. *ELife*, **2017**, 6,	8.9	2
92	Characterization of Function of the GlgA2 Glycogen/Starch Synthase in Cyanobacterium sp. Clg1 Highlights Convergent Evolution of Glycogen Metabolism into Starch Granule Aggregation. *Plant Physiology*, **2016**, 171, 1879-92	6.6	9
91	EVOLUTION. Pathogen to powerhouse. *Science*, **2016**, 351, 659-60	33.3	28
90	Sequestration of host metabolism by an intracellular pathogen. *ELife*, **2016**, 5, e12552	8.9	50

89	Commentary: Plastid establishment did not require a chlamydial partner. *Frontiers in Cellular and Infection Microbiology*, **2016**, 6, 43	5.9	9
88	Was the Chlamydial Adaptative Strategy to Tryptophan Starvation an Early Determinant of Plastid Endosymbiosis?. *Frontiers in Cellular and Infection Microbiology*, **2016**, 6, 67	5.9	10
87	Comparison of Chain-Length Preferences and Glucan Specificities of Isoamylase-Type Glucan Debranching Enzymes from Rice, Cyanobacteria, and Bacteria. *PLoS ONE*, **2016**, 11, e0157020	3.7	9
86	Infection and the first eukaryotes--Response. *Science*, **2016**, 352, 1065-6	33.3	4
85	The Transition from Glycogen to Starch Metabolism in Cyanobacteria and Eukaryotes **2015**, 93-158		12
84	Toward an understanding of the function of Chlamydiales in plastid endosymbiosis. *Biochimica Et Biophysica Acta - Bioenergetics*, **2015**, 1847, 495-504	4.6	11
83	Blurred pictures from the crime scene: the growing case for a function of Chlamydiales in plastid endosymbiosis. *Microbes and Infection*, **2015**, 17, 723-6	9.3	3
82	Crystallization and crystallographic analysis of branching enzymes from Cyanothece sp. ATCC 51142. *Acta Crystallographica Section F, Structural Biology Communications*, **2015**, 71, 1109-13	1.1	13
81	Ba-7 ??????????????????????????(??????,????,??????????????????27????(?64?)). *Bulletin of Applied Glycoscience*, **2015**, 5, B42	0.1	
80	Ca-1 ????????????(??????)????????(????????,????,??????????????????27????(?64?)). *Bulletin of Applied Glycoscience*, **2015**, 5, B46	0.1	
79	Crystal structure of the Chlamydomonas starch debranching enzyme isoamylase ISA1 reveals insights into the mechanism of branch trimming and complex assembly. *Journal of Biological Chemistry*, **2014**, 289, 22991-23003	5.4	40
78	Molecular evolution accompanying functional divergence of duplicated genes along the plant starch biosynthesis pathway. *BMC Evolutionary Biology*, **2014**, 14, 103	3	23
77	Diversity of reaction characteristics of glucan branching enzymes and the fine structure of glucan from various sources. *Archives of Biochemistry and Biophysics*, **2014**, 562, 9-21	4.1	44
76	Transition from glycogen to starch metabolism in Archaeplastida. *Trends in Plant Science*, **2014**, 19, 18-28	13.1	45
75	Evolution of Storage Polysaccharide Metabolism in Archaeplastida Opens an Unexpected Window on the Molecular Mechanisms That Drove Plastid Endosymbiosis **2014**, 111-134		3
74	Genome structure and metabolic features in the red seaweed Chondrus crispus shed light on evolution of the Archaeplastida. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 5247-52	11.5	239
73	Physicochemical variation of cyanobacterial starch, the insoluble Glucans in cyanobacteria. *Plant and Cell Physiology*, **2013**, 54, 465-73	4.9	22
72	Genome of the red alga Porphyridium purpureum. *Nature Communications*, **2013**, 4, 1941	17.4	165

71	Chlamydia, cyanobiont, or host: who was on top in the m□age □trois?. *Trends in Plant Science*, **2013**, 18, 673-9	13.1	31
70	Metabolic effectors secreted by bacterial pathogens: essential facilitators of plastid endosymbiosis?. *Plant Cell*, **2013**, 25, 7-21	11.6	84
69	Convergent evolution of polysaccharide debranching defines a common mechanism for starch accumulation in cyanobacteria and plants. *Plant Cell*, **2013**, 25, 3961-75	11.6	18
68	A forward genetic approach in Chlamydomonas reinhardtii as a strategy for exploring starch catabolism. *PLoS ONE*, **2013**, 8, e74763	3.7	22
67	Algal genomes reveal evolutionary mosaicism and the fate of nucleomorphs. *Nature*, **2012**, 492, 59-65	50.4	304
66	Cyanophora paradoxa genome elucidates origin of photosynthesis in algae and plants. *Science*, **2012**, 335, 843-7	33.3	304
65	Eukaryote to gut bacteria transfer of a glycoside hydrolase gene essential for starch breakdown in plants. *Mobile Genetic Elements*, **2012**, 2, 81-87		12
64	Effects of granule-bound starch synthase I-defective mutation on the morphology and structure of pyrenoidal starch in Chlamydomonas. *Plant Science*, **2011**, 180, 238-45	5.3	17
63	Microarray data can predict diurnal changes of starch content in the picoalga Ostreococcus. *BMC Systems Biology*, **2011**, 5, 36	3.5	33
62	The evolution of glycogen and starch metabolism in eukaryotes gives molecular clues to understand the establishment of plastid endosymbiosis. *Journal of Experimental Botany*, **2011**, 62, 1775-801	7	182
61	Engineering the chloroplast targeted malarial vaccine antigens in Chlamydomonas starch granules. *PLoS ONE*, **2010**, 5, e15424	3.7	63
60	Phylogenetic and biochemical evidence supports the recruitment of an ADP-glucose translocator for the export of photosynthate during plastid endosymbiosis. *Molecular Biology and Evolution*, **2010**, 27, 2691-701	8.3	39
59	Functions of heteromeric and homomeric isoamylase-type starch-debranching enzymes in developing maize endosperm. *Plant Physiology*, **2010**, 153, 956-69	6.6	71
58	Relationships between PSII-independent hydrogen bioproduction and starch metabolism as evidenced from isolation of starch catabolism mutants in the green alga Chlamydomonas reinhardtii. *International Journal of Hydrogen Energy*, **2010**, 35, 10731-10740	6.7	35
57	Chlamydomonas starchless mutant defective in ADP-glucose pyrophosphorylase hyper-accumulates triacylglycerol. *Metabolic Engineering*, **2010**, 12, 387-91	9.7	294
56	Genetic dissection of floridean starch synthesis in the cytosol of the model dinoflagellate Crypthecodinium cohnii. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 21126-30	11.5	34
55	Hydrogen production in Chlamydomonas: photosystem II-dependent and -independent pathways differ in their requirement for starch metabolism. *Plant Physiology*, **2009**, 151, 631-40	6.6	134
54	Starch Metabolism **2009**, 1-40		11

53	Green factories: The shaping and use of metabolic pathways in algae. *Biochemist*, **2009**, 31, 20-23	0.5	
52	L'amidon: sa synthèse, sa mobilisation, son histoire évolutive. *Cahiers Agricultures*, **2009**, 18, 315-322	0.9	2
51	The relocation of starch metabolism to chloroplasts: when, why and how. *Trends in Plant Science*, **2008**, 13, 574-82	13.1	78
50	Further evidence for the mandatory nature of polysaccharide debranching for the aggregation of semicrystalline starch and for overlapping functions of debranching enzymes in Arabidopsis leaves. *Plant Physiology*, **2008**, 148, 1309-23	6.6	68
49	Early gene duplication within chloroplastida and its correspondence with relocation of starch metabolism to chloroplasts. *Genetics*, **2008**, 178, 2373-87	4	66
48	Metabolic Symbiosis and the Birth of the Plant Kingdom. *Molecular Biology and Evolution*, **2008**, 25, 795-795	8.3	2
47	Pathway of cytosolic starch synthesis in the model glaucophyte Cyanophora paradoxa. *Eukaryotic Cell*, **2008**, 7, 247-57		43
46	Metabolic symbiosis and the birth of the plant kingdom. *Molecular Biology and Evolution*, **2008**, 25, 536-48	8.3	132
45	Variation in storage alpha-glucans of the Porphyridiales (Rhodophyta). *Plant and Cell Physiology*, **2008**, 49, 103-16	4.9	46
44	The heterotrophic dinoflagellate Crypthecodinium cohnii defines a model genetic system to investigate cytoplasmic starch synthesis. *Eukaryotic Cell*, **2008**, 7, 872-80		31
43	The phenotype of soluble starch synthase IV defective mutants of Arabidopsis thaliana suggests a novel function of elongation enzymes in the control of starch granule formation. *Plant Journal*, **2007**, 49, 492-504	6.9	205
42	The Chlamydomonas genome reveals the evolution of key animal and plant functions. *Science*, **2007**, 318, 245-50	33.3	1969
41	Circadian clock regulation of starch metabolism establishes GBSSI as a major contributor to amylopectin synthesis in Chlamydomonas reinhardtii. *Plant Physiology*, **2006**, 142, 305-17	6.6	94
40	Molecular and biochemical analysis of periplastidial starch metabolism in the cryptophyte Guillardia theta. *Eukaryotic Cell*, **2006**, 5, 964-71		14
39	Glycogen phosphorylase, the product of the glgP Gene, catalyzes glycogen breakdown by removing glucose units from the nonreducing ends in Escherichia coli. *Journal of Bacteriology*, **2006**, 188, 5266-72	3.5	77
38	Mutants of Arabidopsis lacking starch branching enzyme II substitute plastidial starch synthesis by cytoplasmic maltose accumulation. *Plant Cell*, **2006**, 18, 2694-709	11.6	86
37	Genome analysis of the smallest free-living eukaryote Ostreococcus tauri unveils many unique features. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 11647-52	11.5	669
36	Plastidial phosphorylase is required for normal starch synthesis in Chlamydomonas reinhardtii. *Plant Journal*, **2006**, 48, 274-85	6.9	93

35	Nature of the periplastidial pathway of starch synthesis in the cryptophyte Guillardia theta. *Eukaryotic Cell*, **2006**, 5, 954-63		49
34	Evolution of plant-like crystalline storage polysaccharide in the protozoan parasite Toxoplasma gondii argues for a red alga ancestry. *Journal of Molecular Evolution*, **2005**, 60, 257-67	3.1	106
33	Amylopectin biogenesis and characterization in the protozoan parasite Toxoplasma gondii, the intracellular development of which is restricted in the HepG2 cell line. *Microbes and Infection*, **2005**, 7, 41-8	9.3	45
32	Soluble starch synthase I: a major determinant for the synthesis of amylopectin in Arabidopsis thaliana leaves. *Plant Journal*, **2005**, 43, 398-412	6.9	146
31	Eukaryotic microalgae genomics. The essence of being a plant. *Plant Physiology*, **2005**, 137, 397-8	6.6	8
30	Role of the Escherichia coli glgX gene in glycogen metabolism. *Journal of Bacteriology*, **2005**, 187, 1465-73	3.5	96
29	Mutants of Arabidopsis lacking a chloroplastic isoamylase accumulate phytoglycogen and an abnormal form of amylopectin. *Plant Physiology*, **2005**, 138, 184-95	6.6	145
28	Starch division and partitioning. A mechanism for granule propagation and maintenance in the picophytoplanktonic green alga Ostreococcus tauri. *Plant Physiology*, **2004**, 136, 3333-40	6.6	65
27	Planning Needs Specific Credentials. *Journal of the American Planning Association*, **2004**, 70, 97-97	2.9	
26	STA11, a Chlamydomonas reinhardtii locus required for normal starch granule biogenesis, encodes disproportionating enzyme. Further evidence for a function of alpha-1,4 glucanotransferases during starch granule biosynthesis in green algae. *Plant Physiology*, **2003**, 132, 137-45	6.6	35
25	From bacterial glycogen to starch: understanding the biogenesis of the plant starch granule. *Annual Review of Plant Biology*, **2003**, 54, 207-33	30.7	540
24	The endopolysaccharide metabolism of the hyperthermophilic archeon Thermococcus hydrothermalis: polymer structure and biosynthesis. *Current Microbiology*, **2002**, 44, 206-11	2.4	16
23	Granule-bound starch synthase I. A major enzyme involved in the biogenesis of B-crystallites in starch granules. *FEBS Journal*, **2002**, 269, 3810-20		46
22	When Simpler Is Better. Unicellular Green Algae for Discovering New Genes and Functions in Carbohydrate Metabolism. *Plant Physiology*, **2001**, 127, 1334-1338	6.6	42
21	Two loci control phytoglycogen production in the monocellular green alga Chlamydomonas reinhardtii. *Plant Physiology*, **2001**, 125, 1710-22	6.6	42
20	Starchless mutants of Chlamydomonas reinhardtii lack the small subunit of a heterotetrameric ADP-glucose pyrophosphorylase. *Journal of Bacteriology*, **2001**, 183, 1069-77	3.5	144
19	Biochemical characterization of wild-type and mutant isoamylases of Chlamydomonas reinhardtii supports a function of the multimeric enzyme organization in amylopectin maturation. *Plant Physiology*, **2001**, 125, 1723-31	6.6	52
18	Recent progress toward understanding biosynthesis of the amylopectin crystal. *Plant Physiology*, **2000**, 122, 989-97	6.6	411

17	The debranching enzyme complex missing in glycogen accumulating mutants of Chlamydomonas reinhardtii displays an isoamylase-type specificity. *Plant Science*, **2000**, 157, 145-156	5.3	26
16	Genetic and biochemical evidence for the involvement of alpha-1,4 glucanotransferases in amylopectin synthesis. *Plant Physiology*, **1999**, 120, 993-1004	6.6	84
15	Novel, starch-like polysaccharides are synthesized by an unbound form of granule-bound starch synthase in glycogen-accumulating mutants of Chlamydomonas reinhardtii. *Plant Physiology*, **1999**, 119, 321-30	6.6	66
14	Biochemical characterization of the chlamydomonas reinhardtii alpha-1,4 glucanotransferase supports a direct function in amylopectin biosynthesis. *Plant Physiology*, **1999**, 120, 1005-14	6.6	69
13	Starch granules: structure and biosynthesis. *International Journal of Biological Macromolecules*, **1998**, 23, 85-112	7.9	1400
12	Progress in understanding the biosynthesis of amylose. *Trends in Plant Science*, **1998**, 3, 462-467	13.1	164
11	Regulation of Starch Biosynthesis **1998**, 549-567		2
10	Amylose is synthesized in vitro by extension of and cleavage from amylopectin. *Journal of Biological Chemistry*, **1998**, 273, 22232-40	5.4	102
9	Preamylopectin Processing: A Mandatory Step for Starch Biosynthesis in Plants. *Plant Cell*, **1996**, 8, 1353	11.6	73
8	From glycogen to amylopectin: a model for the biogenesis of the plant starch granule. *Cell*, **1996**, 86, 349-52	56.2	393
7	Control of starch composition and structure through substrate supply in the monocellular alga Chlamydomonas reinhardtii. *Journal of Biological Chemistry*, **1996**, 271, 16281-7	5.4	79
6	Storage, Photosynthesis, and Growth: The Conditional Nature of Mutations Affecting Starch Synthesis and Structure in Chlamydomonas. *Plant Cell*, **1995**, 7, 1117	11.6	28
5	Recent Views on the Biosynthesis of the Plant Starch Granule.. *Trends in Glycoscience and Glycotechnology*, **1995**, 7, 405-415	0.1	9
4	A Chlamydomonas reinhardtii low-starch mutant is defective for 3-phosphoglycerate activation and orthophosphate inhibition of ADP-glucose pyrophosphorylase. *Planta*, **1991**, 185, 17-26	4.7	92
3	Physiology of starch storage in the monocellular alga Chlamydomonas reinhardtii. *Plant Science*, **1990**, 66, 1-9	5.3	136
2	Molecular cloning and characterization of ARO7-OSM2, a single yeast gene necessary for chorismate mutase activity and growth in hypertonic medium. *Molecular Genetics and Genomics*, **1986**, 205, 326-30		30
1	Control of Starch Biosynthesis in Vascular Plants and Algae258-289		2