

# R Michael Garavito

## List of Publications by Citations

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59  
papers

9,476  
citations

35  
h-index

63  
g-index

63  
ext. papers

10,044  
ext. citations

7.9  
avg, IF

5.83  
L-index

#	Paper	IF	Citations
59	Cyclooxygenases: structural, cellular, and molecular biology. <i>Annual Review of Biochemistry</i> , <b>2000</b> , 69, 145-82	29.1	2375
58	Prostaglandin endoperoxide H synthases (cyclooxygenases)-1 and -2. <i>Journal of Biological Chemistry</i> , <b>1996</b> , 271, 33157-60	5.4	1377
57	The X-ray crystal structure of the membrane protein prostaglandin H2 synthase-1. <i>Nature</i> , <b>1994</b> , 367, 243-9	50.4	1144
56	Detergents as tools in membrane biochemistry. <i>Journal of Biological Chemistry</i> , <b>2001</b> , 276, 32403-6	5.4	426
55	The structural basis of aspirin activity inferred from the crystal structure of inactivated prostaglandin H2 synthase. <i>Nature Structural Biology</i> , <b>1995</b> , 2, 637-43		390
54	Gene transfer from bacteria and archaea facilitated evolution of an extremophilic eukaryote. <i>Science</i> , <b>2013</b> , 339, 1207-10	33.3	324
53	Enzymes and receptors of prostaglandin pathways with arachidonic acid-derived versus eicosapentaenoic acid-derived substrates and products. <i>Journal of Biological Chemistry</i> , <b>2007</b> , 282, 22254-66	5.4	302
52	Identification of conserved lipid/detergent-binding sites in a high-resolution structure of the membrane protein cytochrome c oxidase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 16117-22	11.5	244
51	Comparative genomics of two closely related unicellular thermo-acidophilic red algae, <i>Galdieria sulphuraria</i> and <i>Cyanidioschyzon merolae</i> , reveals the molecular basis of the metabolic flexibility of <i>Galdieria sulphuraria</i> and significant differences in carbohydrate metabolism of both algae. <i>Plant Physiology</i> , <b>2005</b> , 137, 110-21	6.6	163
50	Synthesis and use of iodinated nonsteroidal antiinflammatory drug analogs as crystallographic probes of the prostaglandin H2 synthase cyclooxygenase active site. <i>Biochemistry</i> , <b>1996</b> , 35, 7330-40	3.2	161
49	Isolation and crystallization of bacterial porin. <i>Methods in Enzymology</i> , <b>1986</b> , 125, 309-28	1.7	140
48	Structure of the TDP-epi-vancosaminyltransferase GtFA from the chloroeremomycin biosynthetic pathway. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2003</b> , 100, 9238-43	11.5	133
47	Involvement of arginine 120, glutamate 524, and tyrosine 355 in the binding of arachidonate and 2-phenylpropionic acid inhibitors to the cyclooxygenase active site of ovine prostaglandin endoperoxide H synthase-1. <i>Journal of Biological Chemistry</i> , <b>1996</b> , 271, 2179-84	5.4	131
46	Protein structure. Crystal structures of translocator protein (TSPO) and mutant mimic of a human polymorphism. <i>Science</i> , <b>2015</b> , 347, 555-8	33.3	124
45	Crystal structure of vancosaminyltransferase GtFD from the vancomycin biosynthetic pathway: interactions with acceptor and nucleotide ligands. <i>Biochemistry</i> , <b>2004</b> , 43, 5170-80	3.2	113
44	Recombinant Arabidopsis SQD1 converts udp-glucose and sulfite to the sulfolipid head group precursor UDP-sulfoquinovose in vitro. <i>Journal of Biological Chemistry</i> , <b>2001</b> , 276, 3941-6	5.4	112
43	Strategies for crystallizing membrane proteins. <i>Journal of Bioenergetics and Biomembranes</i> , <b>1996</b> , 28, 13-27	3.7	105

42	The structures of prostaglandin endoperoxide H synthases-1 and -2. <i>Prostaglandins and Other Lipid Mediators</i> , <b>2002</b> , 68-69, 129-52	3.7	104
41	The structure of mammalian cyclooxygenases. <i>Annual Review of Biophysics and Biomolecular Structure</i> , <b>2003</b> , 32, 183-206		103
40	Structure of eicosapentaenoic and linoleic acids in the cyclooxygenase site of prostaglandin endoperoxide H synthase-1. <i>Journal of Biological Chemistry</i> , <b>2001</b> , 276, 37547-55	5.4	103
39	The structure of mammalian hexokinase-1. <i>Nature Structural Biology</i> , <b>1998</b> , 5, 555-60		100
38	Prostaglandin endoperoxide H synthase-1: the functions of cyclooxygenase active site residues in the binding, positioning, and oxygenation of arachidonic acid. <i>Journal of Biological Chemistry</i> , <b>2001</b> , 276, 10347-57	5.4	100
37	The role of arginine 120 of human prostaglandin endoperoxide H synthase-2 in the interaction with fatty acid substrates and inhibitors. <i>Journal of Biological Chemistry</i> , <b>1999</b> , 274, 17109-14	5.4	90
36	EST-analysis of the thermo-acidophilic red microalga <i>Galdieria sulphuraria</i> reveals potential for lipid A biosynthesis and unveils the pathway of carbon export from rhodoplasts. <i>Plant Molecular Biology</i> , <b>2004</b> , 55, 17-32	4.6	83
35	Translocator Protein 18 kDa (TSPO): An Old Protein with New Functions?. <i>Biochemistry</i> , <b>2016</b> , 55, 2821-33	3.2	81
34	The art of crystallizing membrane proteins. <i>Methods</i> , <b>1990</b> , 1, 57-69	4.6	76
33	Oxicams bind in a novel mode to the cyclooxygenase active site via a two-water-mediated H-bonding Network. <i>Journal of Biological Chemistry</i> , <b>2014</b> , 289, 6799-6808	5.4	74
32	Structural basis of enantioselective inhibition of cyclooxygenase-1 by S-alpha-substituted indomethacin ethanolamides. <i>Journal of Biological Chemistry</i> , <b>2007</b> , 282, 28096-105	5.4	70
31	The membrane binding domains of prostaglandin endoperoxide H synthases 1 and 2. Peptide mapping and mutational analysis. <i>Journal of Biological Chemistry</i> , <b>1999</b> , 274, 32936-42	5.4	65
30	The structure of sucrose synthase-1 from <i>Arabidopsis thaliana</i> and its functional implications. <i>Journal of Biological Chemistry</i> , <b>2011</b> , 286, 36108-36118	5.4	62
29	Conserved lipid-binding sites in membrane proteins: a focus on cytochrome c oxidase. <i>Current Opinion in Structural Biology</i> , <b>2007</b> , 17, 444-50	8.1	46
28	Structure of the MUR1 GDP-mannose 4,6-dehydratase from <i>Arabidopsis thaliana</i> : implications for ligand binding and specificity. <i>Biochemistry</i> , <b>2002</b> , 41, 15578-89	3.2	43
27	Mutational and X-ray crystallographic analysis of the interaction of dihomo-gamma -linolenic acid with prostaglandin endoperoxide H synthases. <i>Journal of Biological Chemistry</i> , <b>2001</b> , 276, 10358-65	5.4	42
26	Crystal structure of a tetrameric GDP-D-mannose 4,6-dehydratase from a bacterial GDP-D-rhamnose biosynthetic pathway. <i>Protein Science</i> , <b>2004</b> , 13, 529-39	6.3	41
25	Crystallographic location and mutational analysis of Zn and Cd inhibitory sites and role of lipidic carboxylates in rescuing proton path mutants in cytochrome c oxidase. <i>Biochemistry</i> , <b>2007</b> , 46, 6239-48	3.2	35

24	Ferredoxin-dependent glutamate synthase moonlights in plant sulfolipid biosynthesis by forming a complex with SQD1. <i>Archives of Biochemistry and Biophysics</i> , <b>2005</b> , 436, 206-14	4.1	35
23	Fabrication of highly insulating tethered bilayer lipid membrane using yeast cell membrane fractions for measuring ion channel activity. <i>Journal of Colloid and Interface Science</i> , <b>2008</b> , 322, 465-72	9.3	31
22	Functional characterization of PorB class II porin from <i>Neisseria meningitidis</i> using a tethered bilayer lipid membrane. <i>Biosensors and Bioelectronics</i> , <b>2008</b> , 24, 837-41	11.8	31
21	Peroxidase activity in prostaglandin endoperoxide H synthase-1 occurs with a neutral histidine proximal heme ligand. <i>Biochemistry</i> , <b>2000</b> , 39, 6616-24	3.2	31
20	Studies on coenzyme binding to glyceraldehyde-3-phosphate dehydrogenase. <i>Journal of Molecular Biology</i> , <b>1976</b> , 107, 577-84	6.5	31
19	Prostaglandin H synthase 2 variant (Val511Ala) in African Americans may reduce the risk for colorectal neoplasia. <i>Cancer Epidemiology Biomarkers and Prevention</i> , <b>2002</b> , 11, 1305-15	4	30
18	Anion binding sites in the active center of D-glyceraldehyde-3-phosphate dehydrogenase. <i>Journal of Molecular Biology</i> , <b>1976</b> , 107, 571-6	6.5	26
17	Interaction of Nitric Oxide with Prostaglandin Endoperoxide H Synthase-1: Implications for Fe-His Bond Cleavage in Heme Proteins <i>Journal of Physical Chemistry B</i> , <b>2000</b> , 104, 10844-10850	3.4	22
16	Molecular asymmetry in an abortive ternary complex of lobster glyceraldehyde-3-phosphate dehydrogenase. <i>Biochemistry</i> , <b>1977</b> , 16, 4393-8	3.2	22
15	Crystal structure of arachidonic acid bound to a mutant of prostaglandin endoperoxide H synthase-1 that forms predominantly 11-hydroperoxyeicosatetraenoic acid. <i>Journal of Biological Chemistry</i> , <b>2004</b> , 279, 42929-35	5.4	21
14	Evolving understanding of translocator protein 18 kDa (TSPO). <i>Pharmacological Research</i> , <b>2015</b> , 99, 404-9	10.2	18
13	Structural characterization of a hydroxyacid dehydrogenase from <i>Geobacter sulfurreducens</i> and <i>Geobacter metallireducens</i> with succinic semialdehyde reductase activity. <i>Biochimie</i> , <b>2014</b> , 104, 61-9	4.6	13
12	Sulfolipid Biosynthesis and Function in Plants. <i>Advances in Photosynthesis and Respiration</i> , <b>2008</b> , 185-200	1.7	12
11	Membrane protein structural biology minireview series. <i>Journal of Biological Chemistry</i> , <b>2001</b> , 276, 32393-4	3.4	9
10	Membrane protein structures: the known world expands. <i>Current Opinion in Biotechnology</i> , <b>1998</b> , 9, 344-349	1.9	8
9	Hematopoietic prostaglandin D synthase (HPGDS): a high stability, Val187Ile isoenzyme common among African Americans and its relationship to risk for colorectal cancer. <i>Prostaglandins and Other Lipid Mediators</i> , <b>2012</b> , 97, 22-8	3.7	7
8	Voltage dependent closure of PorB class II porin from <i>Neisseria meningitidis</i> investigated using impedance spectroscopy in a tethered bilayer lipid membrane interface. <i>Journal of Colloid and Interface Science</i> , <b>2013</b> , 390, 211-6	9.3	5
7	Identification of succinic semialdehyde reductases from <i>Geobacter</i> : expression, purification, crystallization, preliminary functional, and crystallographic analysis. <i>Acta Biochimica Et Biophysica Sinica</i> , <b>2011</b> , 43, 996-1002	2.8	5

- 6 Photoinduced Electron Transfers through  $\pi$ Bonds in Solution. *Advances in Chemical Physics*, **2007**, 645-666 2
- 5 Response to Comment on "Crystal structures of translocator protein (TSPO) and mutant mimic of a human polymorphism". *Science*, **2015**, 350, 519 333 1
- 4 Preliminary X-Ray Investigations Into NSAID-Binding to Cyclooxygenase-1. *American Journal of Therapeutics*, **1995**, 2, 611-615 1 1
- 3 Crystallization of Membrane Proteins **2003**, 27-54
- 2 The atomic structure of visual rhodopsin: How and when?. *Behavioral and Brain Sciences*, **1995**, 18, 474 0.9
- 1 Substrate Interactions in the Cyclooxygenase-1 Active Site. *Medical Science Symposia Series*, **2001**, 57-64