

# Ral Padrn

## List of Publications by Citations

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52  
papers

1,822  
citations

23  
h-index

41  
g-index

70  
ext. papers

2,179  
ext. citations

6.8  
avg, IF

4.26  
L-index

#	Paper	IF	Citations
52	Atomic model of a myosin filament in the relaxed state. <i>Nature</i> , <b>2005</b> , 436, 1195-9	50.4	236
51	Direct visualization of myosin-binding protein C bridging myosin and actin filaments in intact muscle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 11423-8	11.5	118
50	Three-dimensional reconstruction of tarantula myosin filaments suggests how phosphorylation may regulate myosin activity. <i>Journal of Molecular Biology</i> , <b>2008</b> , 384, 780-97	6.5	110
49	Understanding the organisation and role of myosin binding protein C in normal striated muscle by comparison with MyBP-C knockout cardiac muscle. <i>Journal of Molecular Biology</i> , <b>2008</b> , 384, 60-72	6.5	95
48	Structural changes accompanying phosphorylation of tarantula muscle myosin filaments. <i>Journal of Cell Biology</i> , <b>1987</b> , 105, 1319-27	7.3	92
47	Arrangement of the heads of myosin in relaxed thick filaments from tarantula muscle. <i>Journal of Molecular Biology</i> , <b>1985</b> , 184, 429-39	6.5	89
46	Effects of myosin variants on interacting-heads motif explain distinct hypertrophic and dilated cardiomyopathy phenotypes. <i>ELife</i> , <b>2017</b> , 6,	8.9	87
45	Myosin Sequestration Regulates Sarcomere Function, Cardiomyocyte Energetics, and Metabolism, Informing the Pathogenesis of Hypertrophic Cardiomyopathy. <i>Circulation</i> , <b>2020</b> , 141, 828-842	16.7	66
44	Conserved Intramolecular Interactions Maintain Myosin Interacting-Heads Motifs Explaining Tarantula Muscle Super-Relaxed State Structural Basis. <i>Journal of Molecular Biology</i> , <b>2016</b> , 428, 1142-1164	6.5	53
43	X-ray diffraction evidence that actin is a 100 Å filament. <i>Nature</i> , <b>1984</b> , 307, 56-58	50.4	53
42	A molecular model of phosphorylation-based activation and potentiation of tarantula muscle thick filaments. <i>Journal of Molecular Biology</i> , <b>2011</b> , 414, 44-61	6.5	49
41	Interacting-heads motif has been conserved as a mechanism of myosin II inhibition since before the origin of animals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, E1991-E2000	11.5	44
40	Blebbistatin stabilizes the helical order of myosin filaments by promoting the switch 2 closed state. <i>Biophysical Journal</i> , <b>2008</b> , 95, 3322-9	2.9	43
39	Structure of the myosin filaments of relaxed and rigor vertebrate striated muscle studied by rapid freezing electron microscopy. <i>Journal of Molecular Biology</i> , <b>1992</b> , 228, 474-87	6.5	43
38	The effect of the ATP analogue AMPPNP on the structure of crossbridges in vertebrate skeletal muscles: X-ray diffraction and mechanical studies. <i>Journal of Muscle Research and Cell Motility</i> , <b>1984</b> , 5, 613-55	3.5	39
37	An invertebrate smooth muscle with striated muscle myosin filaments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, E5660-8	11.5	34
36	A method for quick-freezing live muscles at known instants during contraction with simultaneous recording of mechanical tension. <i>Journal of Microscopy</i> , <b>1988</b> , 151, 81-102	1.9	33

35	Heterogeneity of Z-band structure within a single muscle sarcomere: implications for sarcomere assembly. <i>Journal of Molecular Biology</i> , <b>2003</b> , 332, 161-9	6.5	30
34	Disorder induced in nonoverlap myosin cross-bridges by loss of adenosine triphosphate. <i>Biophysical Journal</i> , <b>1989</b> , 56, 927-33	2.9	30
33	The myosin interacting-heads motif is present in the relaxed thick filament of the striated muscle of scorpion. <i>Journal of Structural Biology</i> , <b>2012</b> , 180, 469-78	3.4	29
32	Helical order in tarantula thick filaments requires the "closed" conformation of the myosin head. <i>Journal of Molecular Biology</i> , <b>2004</b> , 342, 1223-36	6.5	27
31	X-ray diffraction study of the structural changes accompanying phosphorylation of tarantula muscle. <i>Journal of Muscle Research and Cell Motility</i> , <b>1991</b> , 12, 235-41	3.5	25
30	Lessons from a tarantula: new insights into myosin interacting-heads motif evolution and its implications on disease. <i>Biophysical Reviews</i> , <b>2018</b> , 10, 1465-1477	3.7	23
29	Cryo-EM structure of the inhibited (10S) form of myosin II. <i>Nature</i> , <b>2020</b> , 588, 521-525	50.4	23
28	Mechanism of phosphorylation of the regulatory light chain of myosin from tarantula striated muscle. <i>Journal of Muscle Research and Cell Motility</i> , <b>2001</b> , 22, 51-9	3.5	22
27	A new model for the surface arrangement of myosin molecules in tarantula thick filaments. <i>Journal of Molecular Biology</i> , <b>2000</b> , 298, 239-60	6.5	22
26	Towards an atomic model of the thick filaments of muscle. <i>Journal of Molecular Biology</i> , <b>1998</b> , 275, 35-41	6.5	22
25	X-ray diffraction study of the kinetics of myelin lattice swelling. Effect of divalent cations. <i>Biophysical Journal</i> , <b>1979</b> , 28, 231-9	2.9	22
24	Purification of native myosin filaments from muscle. <i>Biophysical Journal</i> , <b>2001</b> , 81, 2817-26	2.9	21
23	Lessons from a tarantula: new insights into muscle thick filament and myosin interacting-heads motif structure and function. <i>Biophysical Reviews</i> , <b>2017</b> , 9, 461-480	3.7	20
22	Different head environments in tarantula thick filaments support a cooperative activation process. <i>Biophysical Journal</i> , <b>2013</b> , 105, 2114-22	2.9	20
21	Tarantula myosin free head regulatory light chain phosphorylation stiffens N-terminal extension, releasing it and blocking its docking back. <i>Molecular BioSystems</i> , <b>2015</b> , 11, 2180-9		19
20	Direct determination of myosin filament symmetry in scallop striated adductor muscle by rapid freezing and freeze substitution. <i>Journal of Molecular Biology</i> , <b>1991</b> , 220, 125-32	6.5	18
19	Sequential myosin phosphorylation activates tarantula thick filament via a disorder-order transition. <i>Molecular BioSystems</i> , <b>2015</b> , 11, 2167-79		15
18	The myosin interacting-heads motif present in live tarantula muscle explains tetanic and posttetanic phosphorylation mechanisms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 11865-11874	11.5	15

17	Repetitive propagation of action potentials destabilizes the structure of the myelin sheath. A dynamic x-ray diffraction study. <i>Biophysical Journal</i> , <b>1982</b> , 39, 183-8	2.9	14
16	The action of local anesthetics on myelin structure and nerve conduction in toad sciatic nerve. <i>Biophysical Journal</i> , <b>1997</b> , 72, 2581-7	2.9	13
15	Three-dimensional reconstruction of thick filaments from rapidly frozen, freeze-substituted tarantula muscle. <i>Journal of Structural Biology</i> , <b>1995</b> , 115, 250-7	3.4	11
14	Visualization of myosin helices in sections of rapidly frozen relaxed tarantula muscle. <i>Journal of Structural Biology</i> , <b>1992</b> , 108, 269-76	3.4	11
13	A dynamic X-ray diffraction study of anaesthesia action. Changes in myelin structure and electrical activity recorded simultaneously from frog sciatic nerves treated with n-alkanes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>1980</b> , 602, 221-33	3.8	10
12	A dynamic x-ray diffraction study of anesthesia action. Thickening of the myelin membrane by n-pentane. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>1979</b> , 552, 535-9	3.8	9
11	In vivo structure of frog sciatic nerve myelin membranes: an x-ray diffraction study at 13A resolution. <i>Journal of Neuroscience Research</i> , <b>1981</b> , 6, 251-60	4.4	8
10	The effect of the repetitive propagation of action potentials on the structure of toad sciatic nerve myelin membranes: an x-ray diffraction study at 11 A resolution. <i>Journal of Neuroscience Research</i> , <b>1980</b> , 5, 611-20	4.4	7
9	Direct visualization of myosin filament symmetry in tarantula striated muscle by electron microscopy. <i>Journal of Structural Biology</i> , <b>1993</b> , 111, 17-21	3.4	6
8	Schistosome Muscles Contain Striated Muscle-Like Myosin Filaments in a Smooth Muscle-Like Architecture. <i>Biophysical Journal</i> , <b>2014</b> , 106, 159a	2.9	5
7	Small-angle x-ray scattering study of human serum low-density lipoproteins with differential reactivity for an arterial proteoglycan. <i>Journal of Supramolecular Structure</i> , <b>1977</b> , 7, 435-42		5
6	The Inhibited, Interacting-Heads Motif Characterizes Myosin II from the Earliest Animals with Muscles. <i>Biophysical Journal</i> , <b>2015</b> , 108, 301a	2.9	4
5	Matching structural densities from different biophysical origins with gain and bias. <i>Journal of Structural Biology</i> , <b>2011</b> , 173, 445-50	3.4	3
4	Relaxed tarantula skeletal muscle has two ATP energy-saving mechanisms. <i>Journal of General Physiology</i> , <b>2021</b> , 153,	3.4	3
3	A method for 3D-reconstruction of a muscle thick filament using the tilt series images of a single filament electron tomogram. <i>Journal of Structural Biology</i> , <b>2014</b> , 186, 265-72	3.4	2
2	Improved Imaging, 3D Reconstruction and Homology Modeling of Tarantula Thick Filaments. <i>Biophysical Journal</i> , <b>2015</b> , 108, 589a	2.9	2
1	O labeling on Ser45 but not on Ser35 supports the cooperative phosphorylation mechanism on tarantula thick filament activation. <i>Biochemical and Biophysical Research Communications</i> , <b>2020</b> , 524, 198-204	3.4	2