

# Michael A Ferenczi

## List of Publications by Year in descending order

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97  
papers

3,787  
citations

147566

31  
h-index

133063

59  
g-index

100  
all docs

100  
docs citations

100  
times ranked

2745  
citing authors

#	ARTICLE	IF	CITATIONS
1	Functional and Molecular Characterisation of Heart Failure Progression in Mice and the Role of Myosin Regulatory Light Chains in the Recovery of Cardiac Muscle Function. <i>International Journal of Molecular Sciences</i> , 2022, 23, 88.	1.8	7
2	Interacting-heads motif explains the X-ray diffraction pattern of relaxed vertebrate skeletal muscle. <i>Biophysical Journal</i> , 2022, 121, 1354-1366.	0.2	9
3	Regulatory Light Chains in Cardiac Development and Disease. <i>International Journal of Molecular Sciences</i> , 2021, 22, 4351.	1.8	13
4	Mn 2+ â€Phosâ€™Tag Polyacrylamide for the Quantification of Protein Phosphorylation Levels. <i>Current Protocols</i> , 2021, 1, e221.	1.3	2
5	Disrupting the LINC complex by AAV mediated gene transduction prevents progression of Lamin induced cardiomyopathy. <i>Nature Communications</i> , 2021, 12, 4722.	5.8	45
6	Development of a three-dimensional printed heart from computed tomography images of a plastinated specimen for learning anatomy. <i>Anatomy and Cell Biology</i> , 2020, 53, 48-57.	0.5	20
7	A Studentsâ€™ Model of Team-based Learning. <i>Health Professions Education</i> , 2019, 5, 294-302.	1.4	9
8	Implementation of team-based learning on a large scale: Three factors to keep in mind*. <i>Medical Teacher</i> , 2018, 40, 582-588.	1.0	43
9	Evaluation by medical students of the educational value of multiâ€material and multiâ€colored threeâ€dimensional printed models of the upper limb for anatomical education. <i>Anatomical Sciences Education</i> , 2018, 11, 54-64.	2.5	94
10	How cognitive engagement fluctuates during a team-based learning session and how it predicts academic achievement. <i>Advances in Health Sciences Education</i> , 2018, 23, 339-351.	1.7	28
11	The Closed State of the Thin Filament Is Not Occupied in Fully Activated Skeletal Muscle. <i>Biophysical Journal</i> , 2017, 112, 1455-1461.	0.2	3
12	Tropomyosin movement is described by a quantitative high-resolution model of X-ray diffraction of contracting muscle. <i>European Biophysics Journal</i> , 2017, 46, 335-342.	1.2	4
13	A post-MI power struggle: adaptations in cardiac power occur at the sarcomere level alongside MyBP-C and RLC phosphorylation. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2016, 311, H465-H475.	1.5	7
14	Revisiting Frankâ€™Starling: regulatory light chain phosphorylation alters the rate of force redevelopment ( $k_{tr}$ ) in a lengthâ€dependent fashion. <i>Journal of Physiology</i> , 2016, 594, 5237-5254.	1.3	19
15	Phosphorylation of the regulatory light chain of myosin in striated muscle: methodological perspectives. <i>European Biophysics Journal</i> , 2016, 45, 779-805.	1.2	31
16	Instrumentation to study myofibril mechanics from static to artificial simulations of cardiac cycle. <i>MethodsX</i> , 2016, 3, 156-170.	0.7	8
17	DCM Mutation ACTC361G Causes Uncoupling of Myofibril Sensitivity from TnI Phosphorylation that can be Reversed by Epigallocatechin-3-Gallate. <i>Biophysical Journal</i> , 2015, 108, 292a.	0.2	0
18	Why Muscle is an Efficient Shock Absorber. <i>PLoS ONE</i> , 2014, 9, e85739.	1.1	19

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19	The Dilated Cardiomyopathy-Causing Mutation ACTC E361G in Cardiac Muscle Myofibrils Specifically Abolishes Modulation of Ca <sup>2+</sup> Regulation by Phosphorylation of Troponin I. <i>Biophysical Journal</i> , 2014, 107, 2369-2380.	0.2	22
20	Effects of Chronic Myocardial Infarction on Cardiac Muscle Performance and Structure In-Vivo and In-Vitro. <i>Biophysical Journal</i> , 2014, 106, 343a-344a.	0.2	0
21	Dcm-Causing Mutation E361G in Actin Uncouples Myofibril Ca <sup>2+</sup> Sensitivity from Protein Phosphorylation. <i>Biophysical Journal</i> , 2014, 106, 774a-775a.	0.2	0
22	HOP Skip and Jump; but How?. <i>Biophysical Journal</i> , 2014, 106, 765a.	0.2	0
23	DCM-Causing Mutation E361G in Actin Slows Myofibril Relaxation Kinetics and Uncouples Myofibril Ca <sup>2+</sup> Sensitivity from Protein Phosphorylation. <i>Biophysical Journal</i> , 2013, 104, 312a.	0.2	3
24	Myosin Regulatory Light Chain (RLC) Phosphorylation Change as a Modulator of Cardiac Muscle Contraction in Disease. <i>Biophysical Journal</i> , 2013, 104, 309a-310a.	0.2	1
25	Mechanical and energetic properties of papillary muscle from <i>ACTC</i> E99K transgenic mouse models of hypertrophic cardiomyopathy. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2013, 304, H1513-H1524.	1.5	25
26	Myosin Regulatory Light Chain (RLC) Phosphorylation Change as a Modulator of Cardiac Muscle Contraction in Disease. <i>Journal of Biological Chemistry</i> , 2013, 288, 13446-13454.	1.6	63
27	Non-Linear Optical Microscopy Sheds Light on Cardiovascular Disease. <i>PLoS ONE</i> , 2013, 8, e56136.	1.1	19
28	Stretch of Contracting Cardiac Muscle Abruptly Decreases the Rate of Phosphate Release at High and Low Calcium. <i>Journal of Biological Chemistry</i> , 2012, 287, 25696-25705.	1.6	15
29	Mutations of ventricular essential myosin light chain disturb myosin binding and sarcomeric sorting. <i>Cardiovascular Research</i> , 2012, 93, 390-396.	1.8	16
30	A Method to Exchange Recombinant Differentially Phosphorylated Rhodamine-Labeled Cardiac RLC into Permeabilized Cardiac Trabeculae. <i>Biophysical Journal</i> , 2012, 102, 359a.	0.2	0
31	The Fraction of Myosin Motors That Participate in Isometric Contraction of Rabbit Muscle Fibers at Near-Physiological Temperature. <i>Biophysical Journal</i> , 2011, 101, 404-410.	0.2	23
32	Millisecond-Scale Biochemical Response to Change in Strain. <i>Biophysical Journal</i> , 2011, 101, 2445-2454.	0.2	23
33	Semi-Automated Analysis of Organelle Movement and Membrane Content: Understanding Rab-Motor Complex Transport Function. <i>Traffic</i> , 2011, 12, 1686-1701.	1.3	14
34	FRET characterisation for cross-bridge dynamics in single-skinned rigor muscle fibres. <i>European Biophysics Journal</i> , 2011, 40, 13-27.	1.2	7
35	Response of Rigor Cross-bridges to Stretch Detected by Fluorescence Lifetime Imaging Microscopy of Myosin Essential Light Chain in Skeletal Muscle Fibers. <i>Journal of Biological Chemistry</i> , 2011, 286, 842-850.	1.6	13
36	Effect of phosphate and temperature on force exerted by white muscle fibres from dogfish. <i>Journal of Muscle Research and Cell Motility</i> , 2010, 31, 35-44.	0.9	6

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37	Effect of Inorganic Phosphate on the Rate of ADP Release During Ramp Shortening in Activated Permeabilized Fibers from Rabbit Psoas Muscle. <i>Biophysical Journal</i> , 2010, 98, 348a.	0.2	0
38	Myosin Heads Contribute to the Maintenance of Filament Order in Relaxed Rabbit Muscle. <i>Biophysical Journal</i> , 2010, 99, 1827-1834.	0.2	8
39	Fluorescence Lifetime Imaging Reveals that the Environment of the ATP Binding Site of Myosin in Muscle Senses Force. <i>Biophysical Journal</i> , 2010, 99, 2163-2169.	0.2	2
40	Investigation of a transgenic mouse model of familial dilated cardiomyopathy. <i>Journal of Molecular and Cellular Cardiology</i> , 2010, 49, 380-389.	0.9	53
41	Insight into the actin-myosin motor from x-ray diffraction on muscle. <i>Frontiers in Bioscience - Landmark</i> , 2009, Volume, 3188.	3.0	14
42	Direct visualisation and kinetic analysis of normal and nemaline myopathy actin polymerisation using total internal reflection microscopy. <i>Journal of Muscle Research and Cell Motility</i> , 2009, 30, 85-92.	0.9	9
43	Time Course and Strain Dependence of ADP Release during Contraction of Permeabilized Skeletal Muscle Fibers. <i>Biophysical Journal</i> , 2009, 96, 3281-3294.	0.2	15
44	Measurement Of ATPase Activity During Ramped Stretches In Contracting Skeletal Muscle Fibers Of The Rabbit. <i>Biophysical Journal</i> , 2009, 96, 212a.	0.2	0
45	Ring-chain interconversion of sulforhodamineamine conjugates involves an unusually labile C-N bond and allows measurement of sulfonamide ionization kinetics. <i>Journal of Physical Organic Chemistry</i> , 2008, 21, 286-298.	0.9	9
46	Morphoregulation by acetylcholinesterase in fibroblasts and astrocytes. <i>Journal of Cellular Physiology</i> , 2008, 215, 82-100.	2.0	33
47	Physiological properties of human diaphragm muscle fibres and the effect of chronic obstructive pulmonary disease. <i>Journal of Physiology</i> , 2008, 586, 2637-2650.	1.3	54
48	Direct Modeling of X-Ray Diffraction Pattern from Contracting Skeletal Muscle. <i>Biophysical Journal</i> , 2008, 95, 2880-2894.	0.2	24
49	Rab27a and MyoVa are the primary Mlph interactors regulating melanosome transport in melanocytes. <i>Journal of Cell Science</i> , 2007, 120, 3111-3122.	1.2	93
50	Fluorescence Lifetime Imaging to Detect Actomyosin States in Mammalian Muscle Sarcomeres. <i>Biophysical Journal</i> , 2007, 93, 2091-2101.	0.2	11
51	Rab27b Regulates Mast Cell Granule Dynamics and Secretion. <i>Traffic</i> , 2007, 8, 883-892.	1.3	92
52	Effect of Strain on Actomyosin Kinetics in Isometric Muscle Fibers. <i>Biophysical Journal</i> , 2006, 90, 3653-3665.	0.2	19
53	Passive properties of the diaphragm in COPD. <i>Journal of Applied Physiology</i> , 2006, 101, 1400-1405.	1.2	28
54	Influence of ionic strength on the time course of force development and phosphate release by dogfish muscle fibres. <i>Journal of Physiology</i> , 2005, 567, 989-1000.	1.3	13

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55	The "Roll and Lock" Mechanism of Force Generation in Muscle. <i>Structure</i> , 2005, 13, 131-141.	1.6	70
56	Cdc42 and Par6 "PKC" regulate the spatially localized association of Dlg1 and APC to control cell polarization. <i>Journal of Cell Biology</i> , 2005, 170, 895-901.	2.3	277
57	Strong Binding of Myosin Heads Stretches and Twists the Actin Helix. <i>Biophysical Journal</i> , 2005, 88, 1902-1910.	0.2	51
58	Smooth muscle myosin: regulation and properties. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2004, 359, 1921-1930.	1.8	49
59	Actomyosin energy turnover declines while force remains constant during isometric muscle contraction. <i>Journal of Physiology</i> , 2004, 555, 27-43.	1.3	28
60	Myosin Regulatory Light Chain Phosphorylation and Strain Modulate Adenosine Diphosphate Release from Smooth Muscle Myosin. <i>Biophysical Journal</i> , 2004, 86, 2318-2328.	0.2	14
61	Crossbridge cycle in smooth muscle: kinetics assessed with flash photolysis and fluorescent probes. <i>Journal of Muscle Research and Cell Motility</i> , 2004, 25, 611-2.	0.9	0
62	Interaction of the actin cytoskeleton with microtubules regulates secretory organelle movement near the plasma membrane in human endothelial cells. <i>Journal of Cell Science</i> , 2003, 116, 3927-3938.	1.2	95
63	Micromechanical measurements on biological materials: muscle fibres. <i>Biotechnology Letters</i> , 2000, 22, 521-529.	1.1	2
64	Conformation of the myosin motor during force generation in skeletal muscle. <i>Nature Structural Biology</i> , 2000, 7, 482-485.	9.7	98
65	ATP Consumption and Efficiency of Human Single Muscle Fibers with Different Myosin Isoform Composition. <i>Biophysical Journal</i> , 2000, 79, 945-961.	0.2	296
66	Comparative Single-Molecule and Ensemble Myosin Enzymology: Sulfoindocyanine ATP and ADP Derivatives. <i>Biophysical Journal</i> , 2000, 78, 3048-3071.	0.2	73
67	Structural responses to the photolytic release of ATP in frog muscle fibres, observed by time-resolved X-ray diffraction. <i>Journal of Physiology</i> , 1999, 520, 681-696.	1.3	11
68	The efficiency of contraction in rabbit skeletal muscle fibres, determined from the rate of release of inorganic phosphate. <i>Journal of Physiology</i> , 1999, 517, 839-854.	1.3	83
69	Structural Changes in the Actin "Myosin Cross-Bridges Associated with Force Generation Induced by Temperature Jump in Permeabilized Frog Muscle Fibers. <i>Biophysical Journal</i> , 1999, 77, 354-372.	0.2	58
70	Elastic bending and active tilting of myosin heads during muscle contraction. <i>Nature</i> , 1998, 396, 383-387.	18.7	155
71	Rate of Phosphate Release after Photoliberation of Adenosine 5 "Triphosphate in Slow and Fast Skeletal Muscle Fibers. <i>Biophysical Journal</i> , 1998, 75, 2389-2401.	0.2	27
72	Time-Resolved Measurements of Phosphate Release by Cycling Cross-Bridges in Portal Vein Smooth Muscle. <i>Biophysical Journal</i> , 1998, 75, 3031-3040.	0.2	12

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73	The ATPase Activity in Isometric and Shortening Skeletal Muscle Fibres. <i>Advances in Experimental Medicine and Biology</i> , 1998, 453, 331-341.	0.8	8
74	ATPase kinetics on activation of rabbit and frog permeabilized isometric muscle fibres: a real time phosphate assay. <i>Journal of Physiology</i> , 1997, 501, 125-148.	1.3	106
75	Muscle force is generated by myosin heads stereospecifically attached to actin. <i>Nature</i> , 1997, 388, 186-190.	13.7	95
76	Mechanical and structural properties underlying contraction of skeletal muscle fibers after partial	0.2	26
77	Inhibition of unloaded shortening velocity in permeabilized muscle fibres by caged ATP compounds. <i>Journal of Muscle Research and Cell Motility</i> , 1995, 16, 131-137.	0.9	34
78	Elastic distortion of myosin heads and repriming of the working stroke in muscle. <i>Nature</i> , 1995, 374, 553-555.	13.7	115
79	Changes in the x-ray diffraction pattern from single, intact muscle fibers produced by rapid shortening and stretch. <i>Biophysical Journal</i> , 1995, 68, 92S-96S; discussion 96S-98S.	0.2	11
80	A new method for the time-resolved measurement of phosphate release in permeabilized muscle fibers. <i>Biophysical Journal</i> , 1995, 68, 191S-192S; discussion 192S-193S.	0.2	10
81	A birefringence study of changes in myosin orientation during relaxation of skinned muscle fibers induced by photolytic ATP release. <i>Biophysical Journal</i> , 1994, 67, 1141-1148.	0.2	9
82	Kinetics of relaxation from rigor of permeabilized fast-twitch skeletal fibers from the rabbit using a novel caged ATP and apyrase. <i>Biophysical Journal</i> , 1994, 67, 2436-2447.	0.2	85
83	Synthesis and properties of a conformationally restricted spin-labeled analog of ATP and its interaction with myosin and skeletal muscle. <i>Biochemistry</i> , 1992, 31, 8043-8054.	1.2	23
84	Myosin head movements are synchronous with the elementary force-generating process in muscle. <i>Nature</i> , 1992, 357, 156-158.	13.7	205
85	A micromanipulation technique with a theoretical cell model for determining mechanical properties of single mammalian cells. <i>Chemical Engineering Science</i> , 1992, 47, 1347-1354.	1.9	76
86	Relaxation from rigor by photolysis of caged-ATP in different types of muscle fibres from <i>Xenopus laevis</i> . <i>Journal of Muscle Research and Cell Motility</i> , 1991, 12, 507-516.	0.9	3
87	A novel micromanipulation technique for measuring the bursting strength of single mammalian cells. <i>Applied Microbiology and Biotechnology</i> , 1991, 36, 208-210.	1.7	84
88	Modelling fibre kinetics. <i>Journal of Muscle Research and Cell Motility</i> , 1989, 10, 395-396.	0.9	0
89	Measurement of the reversibility of ATP binding to myosin in calcium-activated skinned fibers from rabbit skeletal muscle. Oxygen exchange between water and ATP released to the solution. <i>Journal of Biological Chemistry</i> , 1989, 264, 7193-201.	1.6	7
90	The elementary steps of the actomyosin ATPase in muscle fibres studied with caged-ATP. <i>Advances in Experimental Medicine and Biology</i> , 1988, 226, 181-8.	0.8	5

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91	Kinetics of ATP hydrolysis and tension production in skinned cardiac muscle of the guinea pig. Journal of Biological Chemistry, 1988, 263, 16750-6.	1.6	47
92	Phosphate burst in permeable muscle fibers of the rabbit. Biophysical Journal, 1986, 50, 471-477.	0.2	58
93	The kinetics of magnesium adenosine triphosphate cleavage in skinned muscle fibres of the rabbit.. Journal of Physiology, 1984, 352, 575-599.	1.3	132
94	The dependence of force and shortening velocity on substrate concentration in skinned muscle fibres from Rana temporaria.. Journal of Physiology, 1984, 350, 519-543.	1.3	138
95	Protein-protein interactions and their contribution in stabilizing frog myosin. FEBS Letters, 1982, 143, 213-216.	1.3	3
96	General considerations of cross-bridge models in relation to the dependence on MgATP concentration of mechanical parameters of skinned fibers from frog muscles. Society of General Physiologists Series, 1982, 37, 91-107.	0.6	15
97	The relation between maximum shortening velocity and the magnesium adenosine triphosphate concentration in frog skinned muscle fibres [proceedings]. Journal of Physiology, 1979, 292, 71P-72P.	1.3	4