Olga Mayans

List of Publications by Year
in descending order

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114 papers	3,329 citations	172386 29 h-index	189801 50 g-index
120 all docs	120 docs citations	120 times ranked	4969 citing authors

#	Article	IF	Citations
1	Structural basis for activation of the titin kinase domain during myofibrillogenesis. Nature, 1998, 395, 863-869.	13.7	333
2	Structure and Evolution of Parallel Î²-Helix Proteins. Journal of Structural Biology, 1998, 122, 236-246.	1.3	122
3	AMPLE: a cluster-and-truncate approach to solve the crystal structures of small proteins using rapidly computedab initiomodels. Acta Crystallographica Section D: Biological Crystallography, 2012, 68, 1622-1631.	2.5	109
4	Three-dimensional structure of Erwinia chrysanthemi pectin methylesterase reveals a novel esterase active site. Journal of Molecular Biology, 2001, 305, 951-960.	2.0	105
5	Metabolic and Target-Site Mechanisms Combine to Confer Strong DDT Resistance in Anopheles gambiae. PLoS ONE, 2014, 9, e92662.	1.1	102
6	Concise Review: Workshop Review: Understanding and Assessing the Risks of Stem Cell-Based Therapies. Stem Cells Translational Medicine, 2015, 4, 389-400.	1.6	98
7	Differential Regulation of a Hyperthermophilic Î±-Amylase with a Novel (Ca,Zn) Two-metal Center by Zinc. Journal of Biological Chemistry, 2003, 278, 9875-9884.	1.6	93
8	Molecular determinants for the recruitment of the ubiquitinâ€ligase MuRFâ€1 onto Mâ€line titin. FASEB Journal, 2007, 21, 1383-1392.	0.2	91
9	Structural Evidence for a Possible Role of Reversible Disulphide Bridge Formation in the Elasticity of the Muscle Protein Titin. Structure, 2001, 9, 331-340.	1.6	80
10	A regular pattern of Ig super-motifs defines segmental flexibility as the elastic mechanism of the titin chain. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1186-1191.	3.3	80
11	Preventing Plasmon Coupling between Gold Nanorods Improves the Sensitivity of Photoacoustic Detection of Labeled Stem Cells in Vivo. ACS Nano, 2016, 10, 7106-7116.	7.3	78
12	Non-invasive imaging reveals conditions that impact distribution and persistence of cells after in vivo administration. Stem Cell Research and Therapy, 2018, 9, 332.	2.4	66
13	Widespread bacterial lysine degradation proceeding via glutarate and L-2-hydroxyglutarate. Nature Communications, 2018, 9, 5071.	5.8	65
14	Analysis of the distinct functions of growth factors and tissue culture substrates necessary for the long-term self-renewal of human embryonic stem cell lines. Stem Cell Research, 2009, 3, 28-38.	0.3	60
15	Assessing the Efficacy of Nano- and Micro-Sized Magnetic Particles as Contrast Agents for MRI Cell Tracking. PLoS ONE, 2014, 9, e100259.	1.1	56
16	Titin kinase is an inactive pseudokinase scaffold that supports MuRF1 recruitment to the sarcomeric M-line. Open Biology, 2014, 4, 140041.	1.5	52
17	Measures of kidney function by minimally invasive techniques correlate with histological glomerular damage in SCID mice with adriamycin-induced nephropathy. Scientific Reports, 2015, 5, 13601.	1.6	51
18	Preclinical imaging methods for assessing the safety and efficacy of regenerative medicine therapies. Npj Regenerative Medicine, 2017, 2, 28.	2.5	47

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19	Secondary and Tertiary Structure Elasticity of Titin Z1Z2 and a Titin Chain Model. Biophysical Journal, 2007, 93, 1719-1735.	0.2	46
20	Overexpression of the MRI Reporter Genes Ferritin and Transferrin Receptor Affect Iron Homeostasis and Produce Limited Contrast in Mesenchymal Stem Cells. International Journal of Molecular Sciences, 2015, 16, 15481-15496.	1.8	46
21	Human Urine as a Noninvasive Source of Kidney Cells. Stem Cells International, 2015, 2015, 1-7.	1.2	45
22	Neuronal Calcium Sensor-1 Binds the D2 Dopamine Receptor and G-protein-coupled Receptor Kinase 1 (GRK1) Peptides Using Different Modes of Interactions. Journal of Biological Chemistry, 2015, 290, 18744-18756.	1.6	45
23	Functionalized superparamagnetic iron oxide nanoparticles provide highly efficient iron-labeling in macrophages for magnetic resonanceâ€“based detection in vivo. Cytotherapy, 2017, 19, 555-569.	0.3	44
24	Poly-Ig tandems from I-band titin share extended domain arrangements irrespective of the distinct features of their modular constituents. Journal of Muscle Research and Cell Motility, 2006, 26, 355-365.	0.9	42
25	The Ig Doublet Z1Z2: A Model System for the Hybrid Analysis of Conformational Dynamics in Ig Tandems from Titin. Structure, 2006, 14, 1437-1447.	1.6	42
26	Transdermal Measurement of Glomerular Filtration Rate in Mice. Journal of Visualized Experiments, 2018, , .	0.2	41
27	Structural Analysis of B-Box 2 from MuRF1: Identification of a Novel Self-Association Pattern in a RING-like Fold. Biochemistry, 2008, 47, 10722-10730.	1.2	36
28	Multimodal cell tracking from systemic administration to tumour growth by combining gold nanorods and reporter genes. ELife, 2018, 7, .	2.8	33
29	Characterization of the interface between adsorbed fibronectin and human embryonic stem cells. Journal of the Royal Society Interface, 2013, 10, 20130139.	1.5	32
30	The Structure of the FnIII Tandem A77-A78 Points to a Periodically Conserved Architecture in the Myosin-Binding Region of Titin. Journal of Molecular Biology, 2010, 401, 843-853.	2.0	31
31	Tertiary and Secondary Structure Elasticity of a Six-Ig Titin Chain. Biophysical Journal, 2010, 98, 1085-1095.	0.2	30
32	Assessing the Effectiveness of a Far-Red Fluorescent Reporter for Tracking Stem Cells In Vivo. International Journal of Molecular Sciences, 2018, 19, 19.	1.8	30
33	What does fluorine do to a protein? Thermodynamic, and highly-resolved structural insights into fluorine-labelled variants of the cold shock protein. Scientific Reports, 2020, 10, 2640.	1.6	30
34	Structural analysis of two enzymes catalysing reverse metabolic reactions implies common ancestry. EMBO Journal, 2002, 21, 3245-3254.	3.5	28
35	Conformational Flexibility of the Ligand-Binding Domain Dimer in Kainate Receptor Gating and Desensitization. Journal of Neuroscience, 2011, 31, 2916-2924.	1.7	27
36	Surface nanotopography guides kidney-derived stem cell differentiation into podocytes. Acta Biomaterialia, 2017, 56, 171-180.	4.1	27

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37	Multicolour In Vivo Bioluminescence Imaging Using a NanoLucâ€Based BRET Reporter in Combination with Firefly Luciferase. Contrast Media and Molecular Imaging, 2018, 2018, 1-10.	0.4	26
38	Identification of an N-terminal inhibitory extension as the primary mechanosensory regulator of twitchin kinase. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13608-13613.	3.3	25
39	Exploring the speed and performance of molecular replacement withAMPLEusingQUARK ab initioprotein models. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 338-343.	2.5	25
40	Imaging technologies for monitoring the safety, efficacy and mechanisms of action of cell-based regenerative medicine therapies in models of kidney disease. European Journal of Pharmacology, 2016, 790, 74-82.	1.7	25
41	Evaluating the effectiveness of transferrin receptorâ€1 (TfR1) as a magnetic resonance reporter gene. Contrast Media and Molecular Imaging, 2016, 11, 236-244.	0.4	25
42	Molecular insights into the selfâ€assembly mechanism of dystrophia myotonica kinase. FASEB Journal, 2006, 20, 1142-1151.	0.2	24
43	Coâ€precipitation of DEAEâ€dextran coated SPIONs: how synthesis conditions affect particle properties, stem cell labelling and MR contrast. Contrast Media and Molecular Imaging, 2016, 11, 362-370.	0.4	24
44	Rethinking Regenerative Medicine From a Transplant Perspective (and Vice Versa). Transplantation, 2019, 103, 237-249.	0.5	24
45	Routine phasing of coiled-coil protein crystal structures withAMPLE. IUCrJ, 2015, 2, 198-206.	1.0	24
46	Structural and Mutational Analysis of Substrate Complexation by Anthranilate Phosphoribosyltransferase from Sulfolobus solfataricus. Journal of Biological Chemistry, 2006, 281, 21410-21421.	1.6	23
47	Mechanistic and functional diversity in the mechanosensory kinases of the titin-like family. Biochemical Society Transactions, 2013, 41, 1066-1071.	1.6	23
48	Stabilization of a (Î²Î±)8 -barrel protein by an engineered disulfide bridge. FEBS Journal, 2002, 269, 1145-1153.	0.2	22
49	A Rationally Designed Monomeric Variant of Anthranilate Phosphoribosyltransferase from Sulfolobus solfataricus is as Active as the Dimeric Wild-type Enzyme but Less Thermostable. Journal of Molecular Biology, 2008, 376, 506-516.	2.0	22
50	CARP interacts with titin at a unique helical N2A sequence and at the domain Ig81 to form a structured complex. FEBS Letters, 2016, 590, 3098-3110.	1.3	22
51	Ex vivo live cell tracking in kidney organoids using light sheet fluorescence microscopy. PLoS ONE, 2018, 13, e0199918.	1.1	22
52	Molecular Characterisation of Titin N2A and Its Binding of CARP Reveals a Titin/Actin Cross-linking Mechanism. Journal of Molecular Biology, 2021, 433, 166901.	2.0	22
53	Titin kinase ubiquitination aligns autophagy receptors with mechanical signals in the sarcomere. EMBO Reports, 2021, 22, e48018.	2.0	22
54	Porous chitosan by crosslinking with tricarboxylic acid and tuneable release. SN Applied Sciences, 2020, 2, 1.	1.5	21

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55	Structural advances on titin: towards an atomic understanding of multi-domain functions in myofilament mechanics and scaffolding. Biochemical Society Transactions, 2015, 43, 850-855.	1.6	20
56	Titin and Obscurin: Giants Holding Hands and Discovery of a New Ig Domain Subset. Journal of Molecular Biology, 2015, 427, 707-714.	2.0	20
57	Characterisation of Cultured Mesothelial Cells Derived from the Murine Adult Omentum. PLoS ONE, 2016, 11, e0158997.	1.1	20
58	Magnetic Resonance Imaging for Characterization of a Chick Embryo Model of Cancer Cell Metastases. Molecular Imaging, 2018, 17, 153601211880958.	0.7	19
59	Purification, characterization and crystallization of thermostable anthranilate phosphoribosyltransferase from Sulfolobus solfataricus. FEBS Journal, 2001, 268, 2246-2252.	0.2	18
60	The SH3 domain of UNC-89 (obscurin) interacts with paramyosin, a coiled-coil protein, inCaenorhabditis elegansmuscle. Molecular Biology of the Cell, 2016, 27, 1606-1620.	0.9	18
61	MuRFs Specialized Members of the TRIM/RBCC Family with Roles in the Regulation of the Trophic State of Muscle and Its Metabolism. Advances in Experimental Medicine and Biology, 2012, 770, 119-129.	0.8	18
62	Molecular basis for the fold organization and sarcomeric targeting of the muscle atrogin MuRF1. Open Biology, 2014, 4, 130172.	1.5	17
63	Exploration of pathomechanisms triggered by a single-nucleotide polymorphism in titin's I-band: the cardiomyopathy-linked mutation T2580I. Open Biology, 2016, 6, 160114.	1.5	17
64	Residue contacts predicted by evolutionary covariance extend the application ofab initiomolecular replacement to larger and more challenging protein folds. IUCrJ, 2016, 3, 259-270.	1.0	17
65	Twitchin kinase inhibits muscle activity. Molecular Biology of the Cell, 2017, 28, 1591-1600.	0.9	16
66	In vivo fate of free and encapsulated iron oxide nanoparticles after injection of labelled stem cells. Nanoscale Advances, 2019, 1, 367-377.	2.2	16
67	Single-Molecule Force Spectroscopy on the N2A Element of Titin: Effects of Phosphorylation and CARP. Frontiers in Physiology, 2020, 11, 173.	1.3	16
68	Firefly luciferase offers superior performance to AkaLuc for tracking the fate of administered cell therapies. European Journal of Nuclear Medicine and Molecular Imaging, 2022, 49, 796-808.	3.3	16
69	Ensembles generated from crystal structures of single distant homologues solve challenging molecular-replacement cases inAMPLE. Acta Crystallographica Section D: Structural Biology, 2018, 74, 183-193.	1.1	16
70	Extracellular matrix scaffolds as a platform for kidney regeneration. European Journal of Pharmacology, 2016, 790, 21-27.	1.7	15
71	Bipartite Design of a Self-Fibrillating Protein Copolymer with Nanopatterned Peptide Display Capabilities. Nano Letters, 2010, 10, 4533-4537.	4.5	14
72	MS-1magA. Molecular Imaging, 2016, 15, 153601211664153.	0.7	14

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73	Application of theAMPLEcluster-and-truncate approach to NMR structures for molecular replacement. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 2194-2201.	2.5	13
74	Measuring Kidney Perfusion, pH, and Renal Clearance Consecutively Using MRI and Multispectral Optoacoustic Tomography. Molecular Imaging and Biology, 2020, 22, 494-503.	1.3	13
75	Patterned substrates fabricated by a controlled freezing approach and biocompatibility evaluation by stem cells. Materials Science and Engineering C, 2015, 49, 390-399.	3.8	12
76	Scalable, Non-denaturing Purification of Phosphoproteins Using Ga3+-IMAC: N2A and M1M2 Titin Components as Study case. Protein Journal, 2019, 38, 181-189.	0.7	12
77	The N2A region of titin has a unique structural configuration. Journal of General Physiology, 2021, 153, .	0.9	12
78	Mesenchymal stromal cells: what have we learned so far about their therapeutic potential and mechanisms of action?. Emerging Topics in Life Sciences, 2021, 5, 549-562.	1.1	12
79	Lamina-associated Polypeptide 2-Î± Forms Homo-trimers via Its C Terminus, and Oligomerization Is Unaffected by a Disease-causing Mutation. Journal of Biological Chemistry, 2007, 282, 6308-6315.	1.6	11
80	Activation of Anthranilate Phosphoribosyltransferase from Sulfolobus solfataricus by Removal of Magnesium Inhibition and Acceleration of Product Release,. Biochemistry, 2009, 48, 5199-5209.	1.2	11
81	Autologous Cells for Kidney Bioengineering. Current Transplantation Reports, 2016, 3, 207-220.	0.9	10
82	Multimodal Imaging Techniques Show Differences in Homing Capacity Between Mesenchymal Stromal Cells and Macrophages in Mouse Renal Injury Models. Molecular Imaging and Biology, 2020, 22, 904-913.	1.3	10
83	Time to retract Lancet paper on tissue engineered trachea transplants. BMJ, The, 2022, 376, o498.	3.0	9
84	The intracellular Ig fold: a robust protein scaffold for the engineering of molecular recognition. Protein Engineering, Design and Selection, 2012, 25, 205-212.	1.0	7
85	A Noninvasive Imaging Toolbox Indicates Limited Therapeutic Potential of Conditionally Activated Macrophages in a Mouse Model of Multiple Organ Dysfunction. Stem Cells International, 2019, 2019, 1-13.	1.2	7
86	In Vitro Determination of the Immunogenic Impact of Nanomaterials on Primary Peripheral Blood Mononuclear Cells. International Journal of Molecular Sciences, 2020, 21, 5610.	1.8	7
87	Correlating efficacy and desensitization with GluK2 ligand-binding domain movements. Open Biology, 2013, 3, 130051.	1.5	6
88	TrpB2 Enzymes are O-Phospho-<scp>l</scp>-serine Dependent Tryptophan Synthases. Biochemistry, 2014, 53, 6078-6083.	1.2	6
89	Biophysical Analysis of the N-Terminal Domain from the Human Protein Phosphatase 1 Nuclear Targeting Subunit PNUTS Suggests an Extended Transcription Factor TFIIS-Like Fold. Protein Journal, 2016, 35, 340-345.	0.7	6
90	Evolutionary Morphing of Tryptophan Synthase: Functional Mechanisms for the Enzymatic Channeling of Indole. Journal of Molecular Biology, 2018, 430, 5066-5079.	2.0	6

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91	Silver nanoparticle modified surfaces induce differentiation of mouse kidney-derived stem cells. RSC Advances, 2018, 8, 20334-20340.	1.7	6
92	Selfâ€Assembling Proteins as Highâ€Performance Substrates for Embryonic Stem Cell Selfâ€Renewal. Advanced Materials, 2019, 31, 1807521.	11.1	6
93	Approaches toab initiomolecular replacement of Î±-helical transmembrane proteins. Acta Crystallographica Section D: Structural Biology, 2017, 73, 985-996.	1.1	6
94	YbiB from Escherichia coli, the Defining Member of the Novel TrpD2 Family of Prokaryotic DNA-binding Proteins. Journal of Biological Chemistry, 2015, 290, 19527-19539.	1.6	5
95	Exploration of the TRIM Fold of MuRF1 Using EPR Reveals a Canonical Antiparallel Structure and Extended COS-Box. Journal of Molecular Biology, 2019, 431, 2900-2909.	2.0	5
96	Perylene Diimide Nanoprobes for In Vivo Tracking of Mesenchymal Stromal Cells Using Photoacoustic Imaging. ACS Applied Materials & Interfaces, 2020, 12, 27930-27939.	4.0	5
97	Regenerative medicine therapies: lessons from the kidney. Current Opinion in Physiology, 2020, 14, 41-47.	0.9	5
98	Conformational changes in twitchin kinase in vivo revealed by FRET imaging of freely moving C. elegans. ELife, 2021, 10, .	2.8	5
99	Murine models of renal ischemia reperfusion injury: An opportunity for refinement using noninvasive monitoring methods. Physiological Reports, 2022, 10, e15211.	0.7	5
100	Crystallization and preliminary X-ray analysis of a member of a new family of pectate lyases, PelL from Erwinia chrysanthemi. Acta Crystallographica Section D: Biological Crystallography, 1998, 54, 419-422.	2.5	4
101	X-ray analysis of protein crystals with thin-plate morphology. Journal of Synchrotron Radiation, 1999, 6, 1016-1020.	1.0	4
102	The ZT Biopolymer: A Self-Assembling Protein Scaffold for Stem Cell Applications. International Journal of Molecular Sciences, 2019, 20, 4299.	1.8	4
103	Plasma Polymer Coatings To Direct the Differentiation of Mouse Kidney-Derived Stem Cells into Podocyte and Proximal Tubule-like Cells. ACS Biomaterials Science and Engineering, 2019, 5, 2834-2845.	2.6	4
104	Molecular Mechanism of Muscle Contraction: New Perspectives and Ideas. BioMed Research International, 2015, 2015, 1-2.	0.9	3
105	Autophosphorylation Is a Mechanism of Inhibition in Twitchin Kinase. Journal of Molecular Biology, 2018, 430, 793-805.	2.0	3
106	Assessment of changes in autophagic vesicles in human immune cell lines exposed to nano particles. Cell and Bioscience, 2021, 11, 133.	2.1	3
107	Crystallization and preliminary X-ray analysis of the coiled-coil domain of dystrophia myotonica kinase. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 2336-2339.	2.5	2
108	Ultralow-resolutionab initiophasing of filamentous proteins: crystals from a six-Ig fragment of titin as a case study. Acta Crystallographica Section D: Biological Crystallography, 2008, 64, 478-486.	2.5	2

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109	Assembly of a protein â€œbrushâ€•by end-grafting titin fragments to liposomes. Journal of Bioscience and Bioengineering, 2011, 112, 178-179.	1.1	2
110	Functional comparison of distinctBrachyury+ states in a renal differentiation assay. Biology Open, 2018, 7, .	0.6	2
111	Structural annotation of the conserved carbohydrate esterase vb_24B_21 from Shiga toxin-encoding bacteriophage Î¦24B. Journal of Structural Biology, 2020, 212, 107596.	1.3	2
112	Production and analysis of titin kinase: Exploiting active/inactive kinase homologs in pseudokinase validation. Methods in Enzymology, 2022, 667, 147-181.	0.4	2
113	Amniotic Fluid Stem Cells within Chimeric Kidney Rudiments Differentiate to Functional Podocytes after Transplantation into Mature Rat Kidneys. Journal of the American Society of Nephrology: JASN, 2016, 27, 1266-1268.	3.0	1
114	A descriptive guide for absolute quantification of produced shRNA pseudotyped lentiviral particles by real-time PCR. Journal of Biological Methods, 2016, 3, e55.	1.0	1