Daniela Nicastro

List of Publications by Year
in descending order

75 papers	7,682 citations	70409 40 h-index	69880 75 g-index
97 all docs	97 docs citations	97 times ranked	7430 citing authors

#	Article	IF	Citations
1	Macromolecular Architecture in Eukaryotic Cells Visualized by Cryoelectron Tomography. Science, 2002, 298, 1209-1213.	19.8	792
2	New views of cells in 3D: an introduction to electron tomography. Trends in Cell Biology, 2005, 15, 43-51.	8.0	384
3	The dynein regulatory complex is the nexin link and a major regulatory node in cilia and flagella. Journal of Cell Biology, 2009, 187, 921-933.	5.1	318
4	Identification of macromolecular complexes in cryoelectron tomograms of phantom cells. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 14153-14158.	7.5	252
5	Arrangement of Photosystem II and ATP Synthase in Chloroplast Membranes of Spinach and Pea Â. Plant Cell, 2010, 22, 1299-1312.	6.7	244
6	Asymmetric distribution and spatial switching of dynein activity generates ciliary motility. Science, 2018, 360, .	19.8	209
7	Cryoâ€fluorescence microscopy facilitates correlations between light and cryoâ€electron microscopy and reduces the rate of photobleaching. Journal of Microscopy, 2007, 227, 98-109.	2.0	206
8	Cryo-electron Tomography of Neurospora Mitochondria. Journal of Structural Biology, 2000, 129, 48-56.	2.9	180
9	3D structure of eukaryotic flagella in a quiescent state revealed by cryo-electron tomography. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 15889-15894.	7.5	159
10	Enzyme-Instructed Self-Assembly for Spatiotemporal Profiling of the Activities of Alkaline Phosphatases on Live Cells. CheM, 2016, 1, 246-263.	12.1	150
11	Drosophila<i>asterless</i>and Vertebrate Cep152 Are Orthologs Essential for Centriole Duplication. Genetics, 2008, 180, 2081-2094.	2.9	148
12	Cryo-electron tomography reveals ciliary defects underlying human RSPH1 primary ciliary dyskinesia. Nature Communications, 2014, 5, 5727.	13.0	143
13	Structural mechanism of the dynein power stroke. Nature Cell Biology, 2014, 16, 479-485.	9.9	136
14	Cryo-electron tomography reveals conserved features of doublet microtubules in flagella. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E845-53.	7.5	133
15	Membrane deformation and scission by the HSV-1 nuclear egress complex. Nature Communications, 2014, 5, 4131.	13.0	132
16	Sas-4 provides a scaffold for cytoplasmic complexes and tethers them in a centrosome. Nature Communications, 2011, 2, 359.	13.0	127
17	Robust excitons inhabit soft supramolecular nanotubes. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E3367-75.	7.5	100
18	Mdm1 maintains endoplasmic reticulum homeostasis by spatially regulating lipid droplet biogenesis. Journal of Cell Biology, 2019, 218, 1319-1334.	5.1	99

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19	Building Blocks of the Nexin-Dynein Regulatory Complex in Chlamydomonas Flagella. Journal of Biological Chemistry, 2011, 286, 29175-29191.	3.5	92
20	Conserved structural motifs in the central pair complex of eukaryotic flagella. Cytoskeleton, 2013, 70, 101-120.	2.2	92
21	Membrane bridging by Munc13-1 is crucial for neurotransmitter release. ELife, 2019, 8, .	5.9	92
22	Three-dimensional structure of the radial spokes reveals heterogeneity and interactions with dyneins in<i>Chlamydomonas</i>flagella. Molecular Biology of the Cell, 2012, 23, 111-120.	2.4	88
23	Cryoelectron tomography reveals doublet-specific structures and unique interactions in the I1 dynein. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E2067-76.	7.5	87
24	The CSC is required for complete radial spoke assembly and wild-type ciliary motility. Molecular Biology of the Cell, 2011, 22, 2520-2531.	2.4	82
25	The CSC connects three major axonemal complexes involved in dynein regulation. Molecular Biology of the Cell, 2012, 23, 3143-3155.	2.4	81
26	The MIA complex is a conserved and novel dynein regulator essential for normal ciliary motility. Journal of Cell Biology, 2013, 201, 263-278.	5.1	80
27	Insights into the Structure and Function of Ciliary and Flagellar Doublet Microtubules. Journal of Biological Chemistry, 2014, 289, 17427-17444.	3.5	78
28	ATP Consumption of Eukaryotic Flagella Measured at a Single-Cell Level. Biophysical Journal, 2015, 109, 2562-2573.	0.5	76
29	The structural heterogeneity of radial spokes in cilia and flagella is conserved. Cytoskeleton, 2012, 69, 88-100.	2.2	71
30	Probing Nanoscale Self-Assembly of Nonfluorescent Small Molecules inside Live Mammalian Cells. ACS Nano, 2013, 7, 9055-9063.	15.1	69
31	The CSC proteins FAP61 and FAP251 build the basal substructures of radial spoke 3 in cilia. Molecular Biology of the Cell, 2015, 26, 1463-1475.	2.4	64
32	In situ structure determination at nanometer resolution using TYGRESS. Nature Methods, 2020, 17, 201-208.	19.4	63
33	Structural Correlates of Rotavirus Cell Entry. PLoS Pathogens, 2014, 10, e1004355.	4.0	57
34	The I1 dynein-associated tether and tether head complex is a conserved regulator of ciliary motility. Molecular Biology of the Cell, 2018, 29, 1048-1059.	2.4	56
35	In Situ Localization of N and C Termini of Subunits of the Flagellar Nexin-Dynein Regulatory Complex (N-DRC) Using SNAP Tag and Cryo-electron Tomography. Journal of Biological Chemistry, 2015, 290, 5341-5353.	3.5	55
36	<i>Tetrahymena</i>RIB72A and RIB72B are microtubule inner proteins in the ciliary doublet microtubules. Molecular Biology of the Cell, 2018, 29, 2566-2577.	2.4	53

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37	Centriolar remodeling underlies basal body maturation during ciliogenesis in Caenorhabditis elegans. ELife, 2017, 6, .	5.9	52
38	One of the Nine Doublet Microtubules of Eukaryotic Flagella Exhibits Unique and Partially Conserved Structures. PLoS ONE, 2012, 7, e46494.	2.5	51
39	Critical roles for multiple formins during cardiac myofibril development and repair. Molecular Biology of the Cell, 2014, 25, 811-827.	2.4	50
40	Three-Dimensional Structure of the Ultraoligotrophic Marine Bacterium â€œCandidatus Pelagibacter ubiqueâ€. Applied and Environmental Microbiology, 2017, 83, .	3.2	50
41	Ciliary proteins Fap43 and Fap44 interact with each other and are essential for proper cilia and flagella beating. Cellular and Molecular Life Sciences, 2018, 75, 4479-4493.	5.4	50
42	DRC3 connects the N-DRC to dynein g to regulate flagellar waveform. Molecular Biology of the Cell, 2015, 26, 2788-2800.	2.4	49
43	<i>Chlamydomonas</i> PKD2 organizes mastigonemes, hair-like glycoprotein polymers on cilia. Journal of Cell Biology, 2020, 219, .	5.1	49
44	Cryo-Electron Microscope Tomography to Study Axonemal Organization. Methods in Cell Biology, 2009, 91, 1-39.	2.0	47
45	DRC2/CCDC65 is a central hub for assembly of the nexinâ€"dynein regulatory complex and other regulators of ciliary and flagellar motility. Molecular Biology of the Cell, 2018, 29, 137-153.	2.4	46
46	PACRG and FAP20 form the inner junction of axonemal doublet microtubules and regulate ciliary motility. Molecular Biology of the Cell, 2019, 30, 1805-1816.	2.4	45
47	Scaffold subunits support associated subunit assembly in the <i>Chlamydomonas</i> ciliary nexinâ€"dynein regulatory complex. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23152-23162.	7.5	43
48	Formation of membrane ridges and scallops by the F-BAR protein Nervous Wreck. Molecular Biology of the Cell, 2013, 24, 2406-2418.	2.4	41
49	Structural organization of the C1a-e-c supercomplex within the ciliary central apparatus. Journal of Cell Biology, 2019, 218, 4236-4251.	5.1	40
50	Membrane Charge Directs the Outcome of F-BAR Domain Lipid Binding and Autoregulation. Cell Reports, 2015, 13, 2597-2609.	6.3	39
51	Functional refolding of the penetration protein on a non-enveloped virus. Nature, 2021, 590, 666-670.	35.8	39
52	The IDA3 adapter, required for intraflagellar transport of I1 dynein, is regulated by ciliary length. Molecular Biology of the Cell, 2018, 29, 886-896.	2.4	38
53	FAP57/WDR65 targets assembly of a subset of inner arm dyneins and connects to regulatory hubs in cilia. Molecular Biology of the Cell, 2019, 30, 2659-2680.	2.4	36
54	Single particle cryoelectron tomography characterization of the structure and structural variability of poliovirusâ€"receptorâ€"membrane complex at 30 Ã… resolution. Journal of Structural Biology, 2007, 160, 200-210.	2.9	32

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55	Heterotrophic carbon metabolism and energy acquisition in <i>Candidatus</i> Thioglobus singularis strain PS1, a member of the SUP05 clade of marine <i>Gammaproteobacteria</i>. Environmental Microbiology, 2019, 21, 2391-2401.	3.8	31
56	FAP206 is a microtubule-docking adapter for ciliary radial spoke 2 and dynein c. Molecular Biology of the Cell, 2015, 26, 696-710.	2.4	30
57	Complexity and ultrastructure of infectious extracellular vesicles from cells infected by non-enveloped virus. Scientific Reports, 2020, 10, 7939.	3.4	29
58	The nexin link and Bâ€tubule glutamylation maintain the alignment of outer doublets in the ciliary axoneme. Cytoskeleton, 2016, 73, 331-340.	2.2	28
59	Morphological Plasticity in a Sulfur-Oxidizing Marine Bacterium from the SUP05 Clade Enhances Dark Carbon Fixation. MBio, 2019, 10, .	4.3	26
60	3D structure and in situ arrangements of CatSper channel in the sperm flagellum. Nature Communications, 2022, 13, .	13.0	26
61	Electron microscopy for imaging organelles in plants and algae. Plant Physiology, 2022, 188, 713-725.	5.0	25
62	Triglyceride lipolysis triggers liquid crystalline phases in lipid droplets and alters the LD proteome. Journal of Cell Biology, 2022, 221, .	5.1	23
63	Cellular Uptake of A Taurine-Modified, Ester Bond-Decorated D-Peptide Derivative via Dynamin-Based Endocytosis and Macropinocytosis. Molecular Therapy, 2018, 26, 648-658.	8.0	22
64	Absolute proteomic quantification reveals design principles of sperm flagellar chemosensation. EMBO Journal, 2020, 39, e102723.	7.6	22
65	Structural insights into the cause of human <i>RSPH4A</i> primary ciliary dyskinesia. Molecular Biology of the Cell, 2021, 32, 1202-1209.	2.4	16
66	Proteomic analysis of microtubule inner proteins (MIPs) in Rib72 null <i>Tetrahymena</i> cells reveals functional MIPs. Molecular Biology of the Cell, 2021, 32, br8.	2.4	14
67	Three-dimensional flagella structures from animalsâ€™ closest unicellular relatives, the Choanoflagellates. ELife, 0, 11, .	5.9	12
68	Cryo-tomography reveals rigid-body motion and organization of apicomplexan invasion machinery. Nature Communications, 2023, 14, .	13.0	9
69	Electron Microscopy of Microtubuleâ€Based Cytoskeletal Machinery. Methods in Cell Biology, 2007, 79, 437-462.	2.0	8
70	Assembly of actin filaments and microtubules in Nwk F-BAR-induced membrane deformations. Communicative and Integrative Biology, 2015, 8, e1000703.	1.5	7
71	Structural organization of the intermediate and light chain complex of <i>Chlamydomonas</i> ciliary I1 dynein. FASEB Journal, 2021, 35, e21646.	0.4	7
72	Structural organization of the C1b projection within the ciliary central apparatus. Journal of Cell Science, 2021, 134, .	2.0	4

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73	The MBO2/FAP58 heterodimer stabilizes assembly of inner arm dynein <i>b</i> and reveals axoneme asymmetries involved in ciliary waveform. Molecular Biology of the Cell, 2024, 35, .	2.4	1
74	Supramolecular Self-Assembly Inside Living Mammalian Cells. Materials Research Society Symposia Proceedings, 2014, 1622, 85-93.	0.1	0
75	Analyzing Macromolecular Complexes in Situ Using Cellular Cryoâ€Electron Microscopy. FASEB Journal, 2015, 29, 488.3.	0.4	0