Arshad Desai

List of Publications by Year
in descending order

142 papers	18,590 citations	14614 66 h-index	14156 128 g-index
149 all docs	149 docs citations	149 times ranked	15181 citing authors

#	Article	IF	Citations
1	APC7 mediates ubiquitin signaling in constitutive heterochromatin in the developing mammalian brain. Molecular Cell, 2022, 82, 90-105.e13.	4.5	4
2	Evolutionary Dynamics and Molecular Mechanisms of HORMA Domain Protein Signaling. Annual Review of Biochemistry, 2022, 91, 541-569.	5.0	23
3	Polo-like kinase 1 independently controls microtubule-nucleating capacity and size of the centrosome. Journal of Cell Biology, 2021, 220, .	2.3	42
4	The PHLPP1 N-Terminal Extension Is a Mitotic Cdk1 Substrate and Controls an Interactome Switch. Molecular and Cellular Biology, 2021, 41, .	1.1	4
5	TRIM37 prevents formation of condensate-organized ectopic spindle poles to ensure mitotic fidelity. Journal of Cell Biology, 2021, 220, .	2.3	7
6	Spindle assembly checkpoint activation and silencing at kinetochores. Seminars in Cell and Developmental Biology, 2021, 117, 86-98.	2.3	125
7	A tripartite mechanism catalyzes Mad2-Cdc20 assembly at unattached kinetochores. Science, 2021, 371, 64-67.	6.0	45
8	TRIM37 controls cancer-specific vulnerability to PLK4 inhibition. Nature, 2020, 585, 440-446.	13.7	78
9	A Non-canonical BRCT-Phosphopeptide Recognition Mechanism Underlies RhoA Activation in Cytokinesis. Current Biology, 2020, 30, 3101-3115.e11.	1.8	34
10	Rashomon at the kinetochore: Function(s) of the Mad1â€“cyclin B1 complex. Journal of Cell Biology, 2020, 219, .	2.3	2
11	Centriole-independent mitotic spindle assembly relies on the PCNTâ€“CDK5RAP2 pericentriolar matrix. Journal of Cell Biology, 2020, 219, .	2.3	28
12	The G2-to-M Transition Is Ensured by a Dual Mechanism that Protects Cyclin B from Degradation by Cdc20-Activated APC/C. Developmental Cell, 2019, 51, 313-325.e10.	3.1	55
13	Ancestral roles of the Fam20C family of secreted protein kinases revealed in C. elegans. Journal of Cell Biology, 2019, 218, 3795-3811.	2.3	4
14	Unbiased Boolean analysis of public gene expression data for cell cycle gene identification. Molecular Biology of the Cell, 2019, 30, 1770-1779.	0.9	28
15	A high-content imaging approach to profile C. elegans embryonic development. Development (Cambridge), 2019, 146, .	1.2	9
16	The Kinetochore-Microtubule Coupling Machinery Is Repurposed in Sensory Nervous System Morphogenesis. Developmental Cell, 2019, 48, 864-872.e7.	3.1	33
17	Pharmacological convergence reveals a lipid pathway that regulates C. elegans lifespan. Nature Chemical Biology, 2019, 15, 453-462.	3.9	35
18	A Semi-high-throughput Imaging Method and Data Visualization Toolkit to Analyze C. elegans Embryonic Development. Journal of Visualized Experiments, 2019, , .	0.2	0

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19	Promoting an â€œAuteur Theoryâ€•for Young Scientists: Preserving Excitement and Creativityâ€‰â€¦. BioEssays, 2018, 40, 1800147.	1.2	0
20	CFI-400945 is not a selective cellular PLK4 inhibitor. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E10808-E10809.	3.3	18
21	A positive-feedback-based mechanism for constriction rate acceleration during cytokinesis in Caenorhabditis elegans. ELife, 2018, 7, .	2.8	75
22	Employing the one-cell C. elegans embryo to study cell division processes. Methods in Cell Biology, 2018, 144, 185-231.	0.5	6
23	CYK-4 functions independently of its centralspindlin partner ZEN-4 to cellularize oocytes in germline syncytia. ELife, 2018, 7, .	2.8	25
24	Cdc73 suppresses genome instability by mediating telomere homeostasis. PLoS Genetics, 2018, 14, e1007170.	1.5	15
25	The nucleoporin MEL-28/ELYS: A PP1 scaffold during M-phase exit. Cell Cycle, 2017, 16, 489-490.	1.3	5
26	A toolkit for GFP-mediated tissue-specific protein degradation in C. elegans. Development (Cambridge), 2017, 144, 2694-2701.	1.2	103
27	Chromosome Mis-segregation Generates Cell-Cycle-Arrested Cells with Complex Karyotypes that Are Eliminated by the Immune System. Developmental Cell, 2017, 41, 638-651.e5.	3.1	263
28	Dephosphorylation of the Ndc80 Tail Stabilizes Kinetochore-Microtubule Attachments via the Ska Complex. Developmental Cell, 2017, 41, 424-437.e4.	3.1	54
29	An engineered minimal chromosomal passenger complex reveals a role for INCENP/Sli15 spindle association in chromosome biorientation. Journal of Cell Biology, 2017, 216, 911-923.	2.3	25
30	Channel Nucleoporins Recruit PLK-1 to Nuclear Pore Complexes to Direct Nuclear Envelope Breakdown in C.Âelegans. Developmental Cell, 2017, 43, 157-171.e7.	3.1	75
31	Taming the Beast: Control of APC/C^{Cdc20}-Dependent Destruction. Cold Spring Harbor Symposia on Quantitative Biology, 2017, 82, 111-121.	2.0	9
32	Kinetochores accelerate or delay APC/C activation by directing Cdc20 to opposing fates. Genes and Development, 2017, 31, 1089-1094.	2.7	52
33	Meiosis: The Origins of Bias. Current Biology, 2017, 27, R1309-R1311.	1.8	0
34	A Molecular View of Kinetochore Assembly and Function. Biology, 2017, 6, 5.	1.3	432
35	How centrioles acquire the ability to reproduce. ELife, 2017, 6, .	2.8	2
36	A Nucleoporin Docks Protein Phosphatase 1 to Direct Meiotic Chromosome Segregation and Nuclear Assembly. Developmental Cell, 2016, 38, 463-477.	3.1	77

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37	53BP1 and USP28 mediate p53 activation and G1 arrest after centrosome loss or extended mitotic duration. Journal of Cell Biology, 2016, 214, 155-166.	2.3	178
38	A TOGgle for Tension at Kinetochores. Cell, 2016, 165, 1316-1318.	13.5	0
39	A Small RNA-Catalytic Argonaute Pathway Tunes Germline Transcript Levels to Ensure Embryonic Divisions. Cell, 2016, 165, 396-409.	13.5	82
40	A Cell Biologistâ€™s Field Guide to Aurora Kinase Inhibitors. Frontiers in Oncology, 2015, 5, 285.	1.3	80
41	Orthogonal targeting of EGFRvIII expressing glioblastomas through simultaneous EGFR and PLK1 inhibition. Oncotarget, 2015, 6, 11751-11767.	0.8	9
42	Natural Loss of Mps1 Kinase in Nematodes Uncovers a Role for Polo-like Kinase 1 in Spindle Checkpoint Initiation. Cell Reports, 2015, 12, 58-65.	2.9	57
43	The outer kinetochore protein KNL-1 contains a defined oligomerization domain in nematodes. Molecular Biology of the Cell, 2015, 26, 229-237.	0.9	11
44	The CENP-A N-Tail Confers Epigenetic Stability to Centromeres via the CENP-T Branch of the CCAN in Fission Yeast. Current Biology, 2015, 25, 348-356.	1.8	45
45	Reversible centriole depletion with an inhibitor of Polo-like kinase 4. Science, 2015, 348, 1155-1160.	6.0	372
46	Preventing farnesylation of the dynein adaptor Spindly contributes to the mitotic defects caused by farnesyltransferase inhibitors. Molecular Biology of the Cell, 2015, 26, 1845-1856.	0.9	44
47	Kinetochore-localized BUB-1/BUB-3 complex promotes anaphase onset in C. elegans. Journal of Cell Biology, 2015, 209, 507-517.	2.3	40
48	Separase Cleaves the N-Tail of the CENP-A Related Protein CPAR-1 at the Meiosis I Metaphase-Anaphase Transition in C. elegans. PLoS ONE, 2015, 10, e0125382.	1.1	25
49	NOCA-1 functions with Î³-tubulin and in parallel to Patronin to assemble non-centrosomal microtubule arrays in C. elegans. ELife, 2015, 4, e08649.	2.8	109
50	A new piece in the kinetochore jigsaw puzzle. Journal of Cell Biology, 2014, 206, 457-459.	2.3	1
51	Mlh2 Is an Accessory Factor for DNA Mismatch Repair in Saccharomyces cerevisiae. PLoS Genetics, 2014, 10, e1004327.	1.5	36
52	A Bub1â€“Mad1 interaction targets the Mad1â€“Mad2 complex to unattached kinetochores to initiate the spindle checkpoint. Journal of Cell Biology, 2014, 204, 647-657.	2.3	109
53	Spatial control of phospholipid flux restricts endoplasmic reticulum sheet formation to allow nuclear envelope breakdown. Genes and Development, 2014, 28, 121-126.	2.7	75
54	Linked in: formation and regulation of microtubule attachments during chromosome segregation. Current Opinion in Cell Biology, 2014, 26, 113-122.	2.6	41

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55	PCNA and Msh2-Msh6 Activate an Mlh1-Pms1 Endonuclease Pathway Required for Exo1-Independent Mismatch Repair. Molecular Cell, 2014, 55, 291-304.	4.5	89
56	A two-step mechanism for epigenetic specification of centromere identity and function. Nature Cell Biology, 2013, 15, 1056-1066.	4.6	226
57	Crosstalk Between Microtubule Attachment Complexes Ensures Accurate Chromosome Segregation. Science, 2013, 342, 1239-1242.	6.0	94
58	A Conserved RhoGAP Limits M Phase Contractility and Coordinates with Microtubule Asters to Confine RhoA during Cytokinesis. Developmental Cell, 2013, 26, 496-510.	3.1	97
59	Meiotic Double-Strand Breaks Uncover and Protect against Mitotic Errors in the C.Âelegans Germline. Current Biology, 2013, 23, 2400-2406.	1.8	14
60	Direct Binding of SAS-6 to ZYG-1 Recruits SAS-6 to the Mother Centriole for Cartwheel Assembly. Developmental Cell, 2013, 25, 284-298.	3.1	55
61	What the Hec Is Up with Mouse Oocyte Meiosis?. Developmental Cell, 2013, 25, 3-4.	3.1	3
62	Tension sensing by Aurora B kinase is independent of survivin-based centromere localization. Nature, 2013, 497, 118-121.	13.7	129
63	Spindle assembly checkpoint proteins are positioned close to core microtubule attachment sites at kinetochores. Journal of Cell Biology, 2013, 202, 735-746.	2.3	67
64	Dominant Mutations in S. cerevisiae PMS1 Identify the Mlh1-Pms1 Endonuclease Active Site and an Exonuclease 1-Independent Mismatch Repair Pathway. PLoS Genetics, 2013, 9, e1003869.	1.5	52
65	The midbody ring scaffolds the abscission machinery in the absence of midbody microtubules. Journal of Cell Biology, 2013, 203, 505-520.	2.3	71
66	Hierarchical assembly of the eggshell and permeability barrier in C. elegans. Journal of Cell Biology, 2012, 198, 731-748.	2.3	119
67	Microtubule binding by KNL-1 contributes to spindle checkpoint silencing at the kinetochore. Journal of Cell Biology, 2012, 196, 469-482.	2.3	125
68	Structure, assembly and reading of centromeric chromatin. Current Opinion in Genetics and Development, 2012, 22, 139-147.	1.5	31
69	An inverse relationship to germline transcription defines centromeric chromatin in C. elegans. Nature, 2012, 484, 534-537.	13.7	147
70	Acentrosomal spindle assembly and chromosome segregation during oocyte meiosis. Trends in Cell Biology, 2012, 22, 241-249.	3.6	157
71	Broad chromosomal domains of histone modification patterns in C. elegans. Genome Research, 2011, 21, 227-236.	2.4	256
72	Affinity Purification of Protein Complexes in C. elegans. Methods in Cell Biology, 2011, 106, 289-322.	0.5	40

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73	A High-Resolution C.Âelegans Essential Gene Network Based on Phenotypic Profiling of a Complex Tissue. Cell, 2011, 145, 470-482.	13.5	193
74	Visualization of Eukaryotic DNA Mismatch Repair Reveals Distinct Recognition and Repair Intermediates. Cell, 2011, 147, 1040-1053.	13.5	183
75	Acute Drug Treatment in the Early C. elegans Embryo. PLoS ONE, 2011, 6, e24656.	1.1	114
76	Rapid De Novo Centromere Formation Occurs Independently of Heterochromatin Protein 1 in C.Âelegans Embryos. Current Biology, 2011, 21, 1800-1807.	1.8	41
77	The chromosomal passenger complex and centralspindlin independently contribute to contractile ring assembly. Journal of Cell Biology, 2011, 193, 155-169.	2.3	62
78	Uncoordinated Loss of Chromatid Cohesion Is a Common Outcome of Extended Metaphase Arrest. PLoS ONE, 2011, 6, e22969.	1.1	81
79	PHF8 mediates histone H4 lysine 20 demethylation events involved in cell cycle progression. Nature, 2010, 466, 508-512.	13.7	367
80	A kinetochore-independent mechanism drives anaphase chromosome separation during acentrosomal meiosis. Nature Cell Biology, 2010, 12, 894-901.	4.6	189
81	Removal of Spindly from microtubule-attached kinetochores controls spindle checkpoint silencing in human cells. Genes and Development, 2010, 24, 957-971.	2.7	173
82	Integrative Analysis of the Caenorhabditis elegans Genome by the modENCODE Project. Science, 2010, 330, 1775-1787.	6.0	912
83	A PSHaver for Centromeric Histones. Molecular Cell, 2010, 40, 351-352.	4.5	3
84	Systematic Analysis inCaenorhabditis elegansReveals that the Spindle Checkpoint Is Composed of Two Largely Independent Branches. Molecular Biology of the Cell, 2009, 20, 1252-1267.	0.9	81
85	Structural Memory in the Contractile Ring Makes the Duration of Cytokinesis Independent of Cell Size. Cell, 2009, 137, 926-937.	13.5	193
86	Protein Architecture of the Human Kinetochore Microtubule Attachment Site. Cell, 2009, 137, 672-684.	13.5	310
87	Molecular architecture of the kinetochoreâ€“microtubule interface. Nature Reviews Molecular Cell Biology, 2008, 9, 33-46.	16.1	798
88	Kinetochoreâ€“microtubule interactions: the means to the end. Current Opinion in Cell Biology, 2008, 20, 53-63.	2.6	104
89	Fibrils Connect Microtubule Tips with Kinetochores: A Mechanism to Couple Tubulin Dynamics to Chromosome Motion. Cell, 2008, 135, 322-333.	13.5	186
90	Expression and Imaging of Fluorescent Proteins in the C. elegans Gonad and Early Embryo. Methods in Cell Biology, 2008, 85, 179-218.	0.5	64

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91	Inhibition of Rac by the GAP Activity of Centralspindlin Is Essential for Cytokinesis. Science, 2008, 322, 1543-1546.	6.0	172
92	A new mechanism controlling kinetochoreâ€“microtubule interactions revealed by comparison of two dynein-targeting components: SPDL-1 and the Rod/Zwilch/Zw10 complex. Genes and Development, 2008, 22, 2385-2399.	2.7	156
93	An integrated mechanobiochemical feedback mechanism describes chromosome motility from prometaphase to anaphase in mitosis. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 13752-13757.	3.3	18
94	The wages of CIN. Journal of Cell Biology, 2008, 180, 661-663.	2.3	14
95	Proteomics in Caenorhabditis elegans. Briefings in Functional Genomics & Proteomics, 2008, 7, 205-210.	3.8	13
96	Orientation and structure of the Ndc80 complex on the microtubule lattice. Journal of Cell Biology, 2008, 182, 1055-1061.	2.3	86
97	SAS-4 is recruited to a dynamic structure in newly forming centrioles that is stabilized by the Î³-tubulinâ€“mediated addition of centriolar microtubules. Journal of Cell Biology, 2008, 180, 771-785.	2.3	111
98	A mechanobiochemical mechanism for monooriented chromosome oscillation in mitosis. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 16104-16109.	3.3	14
99	A role for Rab5 in structuring the endoplasmic reticulum. Journal of Cell Biology, 2007, 178, 43-56.	2.3	171
100	Functional genomics identifies a Myb domainâ€“containing protein family required for assembly of CENP-A chromatin. Journal of Cell Biology, 2007, 176, 757-763.	2.3	203
101	A Microtubule-Independent Role for Centrosomes and Aurora A in Nuclear Envelope Breakdown. Developmental Cell, 2007, 12, 515-529.	3.1	123
102	Anillin and the Septins Promote Asymmetric Ingression of the Cytokinetic Furrow. Developmental Cell, 2007, 12, 827-835.	3.1	191
103	When it comes to couple(r)s, do opposites attract?. Nature Structural and Molecular Biology, 2007, 14, 790-792.	3.6	1
104	A Bir1-Sli15 Complex Connects Centromeres to Microtubules and Is Required to Sense Kinetochore Tension. Cell, 2006, 127, 1179-1191.	13.5	112
105	The CENP-Hâ€“I complex is required for the efficient incorporation of newly synthesized CENP-A into centromeres. Nature Cell Biology, 2006, 8, 446-457.	4.6	437
106	An FHA domainâ€“mediated protein interaction network of Rad53 reveals its role in polarized cell growth. Journal of Cell Biology, 2006, 175, 743-753.	2.3	85
107	The human Mis12 complex is required for kinetochore assembly and proper chromosome segregation. Journal of Cell Biology, 2006, 173, 9-17.	2.3	173
108	Molecular analysis of mitotic chromosome condensation using a quantitative time-resolved fluorescence microscopy assay. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 15097-15102.	3.3	73

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109	Differential role of CENP-A in the segregation of holocentric C. elegans chromosomes during meiosis and mitosis. Nature Cell Biology, 2005, 7, 1248-1255.	4.6	186
110	Kinetochoreâ€“spindle microtubule interactions during mitosis. Current Opinion in Cell Biology, 2005, 17, 35-46.	2.6	95
111	Microtubule Cytoskeleton: A New Twist at the End. Current Biology, 2005, 15, R126-R129.	1.8	4
112	The CENP-F-like Proteins HCP-1 and HCP-2 Target CLASP to Kinetochores to Mediate Chromosome Segregation. Current Biology, 2005, 15, 771-777.	1.8	90
113	Distinct roles for two C. elegans anillins in the gonad and early embryo. Development (Cambridge), 2005, 132, 2837-2848.	1.2	153
114	Microtubule capture by CENP-E silences BubR1-dependent mitotic checkpoint signaling. Journal of Cell Biology, 2005, 170, 873-880.	2.3	134
115	A complex containing the Sm protein CAR-1 and the RNA helicase CGH-1 is required for embryonic cytokinesis in Caenorhabditis elegans. Journal of Cell Biology, 2005, 171, 267-279.	2.3	222
116	An Essential Function of the C. elegans Ortholog of TPX2 Is to Localize Activated Aurora A Kinase to Mitotic Spindles. Developmental Cell, 2005, 9, 237-248.	3.1	105
117	A conserved protein network controls assembly of the outer kinetochore and its ability to sustain tension. Genes and Development, 2004, 18, 2255-2268.	2.7	370
118	Feeling tense enough?. Nature, 2004, 428, 32-33.	13.7	7
119	Cell division: AAAtacking the mitotic spindle. Current Biology, 2004, 14, R70-R72.	1.8	26
120	"Holo"er than thou: Chromosome segregation and kinetochore function in C. elegans. Chromosome Research, 2004, 12, 641-653.	1.0	147
121	Centriole Assembly Requires Both Centriolar and Pericentriolar Material Proteins. Developmental Cell, 2004, 7, 815-829.	3.1	273
122	The minus end in sight. Current Biology, 2003, 13, R614-R624.	1.8	133
123	KNL-1 directs assembly of the microtubule-binding interface of the kinetochore in C. elegans. Genes and Development, 2003, 17, 2421-2435.	2.7	225
124	The (Theoretical) Yin and Yang of Spindle Mechanics. Developmental Cell, 2002, 3, 465-467.	3.1	2
125	Poleward Microtubule Flux Is a Major Component of Spindle Dynamics and Anaphase A in Mitotic Drosophila Embryos. Current Biology, 2002, 12, 1670-1674.	1.8	104
126	The Microtubule-Destabilizing Kinesin XKCM1 Is Required for Chromosome Positioning during Spindle Assembly. Current Biology, 2002, 12, 1885-1889.	1.8	75

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127	Cell biology. Current Opinion in Cell Biology, 2002, 14, 661-670.	2.6	0
128	The spindle: a dynamic assembly of microtubules and motors. Nature Cell Biology, 2001, 3, E28-E34.	4.6	448
129	Functional Analysis of Kinetochore Assembly in Caenorhabditis elegans. Journal of Cell Biology, 2001, 153, 1209-1226.	2.3	416
130	Implication of a novel multiprotein Dam1p complex in outer kinetochore function. Journal of Cell Biology, 2001, 155, 1137-1146.	2.3	167
131	Reconstitution of Physiological Microtubule Dynamics Using Purified Components. Science, 2001, 294, 1340-1343.	6.0	202
132	Kinetochores. Current Biology, 2000, 10, R508.	1.8	0
133	Cell biology. Current Opinion in Cell Biology, 1999, 11, 523-534.	2.6	0
134	Microtubule cytoskeleton: No longer an also Ran. Current Biology, 1999, 9, R704-R707.	1.8	15
135	Kin I Kinesins Are Microtubule-Destabilizing Enzymes. Cell, 1999, 96, 69-78.	13.5	658
136	Fluorescent speckle microscopy, a method to visualize the dynamics of protein assemblies in living cells. Current Biology, 1998, 8, 1227-S1.	1.8	306
137	Tubulin and FtsZ structures: functional and therapeutic implications. BioEssays, 1998, 20, 523-527.	1.2	20
138	[12] Preparation and characterization of caged fluorescein tubulin. Methods in Enzymology, 1998, 298, 125-132.	0.4	21
139	Anaphase A Chromosome Movement and Poleward Spindle Microtubule Flux Occur At Similar Rates in Xenopus Extract Spindles. Journal of Cell Biology, 1998, 141, 703-713.	2.3	139
140	[23] Purification and assay of a septin complex from Drosophila embryos. Methods in Enzymology, 1998, 298, 279-295.	0.4	16
141	MICROTUBULE POLYMERIZATION DYNAMICS. Annual Review of Cell and Developmental Biology, 1997, 13, 83-117.	4.0	2,222
142	XKCM1: A Xenopus Kinesin-Related Protein That Regulates Microtubule Dynamics during Mitotic Spindle Assembly. Cell, 1996, 84, 37-47.	13.5	517