## **Arshad Desai**

## List of Publications by Year in descending order

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

#	Article	IF	CITATIONS
1	MICROTUBULE POLYMERIZATION DYNAMICS. Annual Review of Cell and Developmental Biology, 1997, 13, 83-117.	4.0	2,222
2	Integrative Analysis of the <i>Caenorhabditis elegans</i> Genome by the modENCODE Project. Science, 2010, 330, 1775-1787.	6.0	912
3	Molecular architecture of the kinetochore–microtubule interface. Nature Reviews Molecular Cell Biology, 2008, 9, 33-46.	16.1	798
4	Kin I Kinesins Are Microtubule-Destabilizing Enzymes. Cell, 1999, 96, 69-78.	13.5	658
5	XKCM1: A Xenopus Kinesin-Related Protein That Regulates Microtubule Dynamics during Mitotic Spindle Assembly. Cell, 1996, 84, 37-47.	13.5	517
6	The spindle: a dynamic assembly of microtubules and motors. Nature Cell Biology, 2001, 3, E28-E34.	4.6	448
7	The CENP-H–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
8	A Molecular View of Kinetochore Assembly and Function. Biology, 2017, 6, 5.	1.3	432
9	Functional Analysis of Kinetochore Assembly in Caenorhabditis elegans. Journal of Cell Biology, 2001, 153, 1209-1226.	2.3	416
10	Reversible centriole depletion with an inhibitor of Polo-like kinase 4. Science, 2015, 348, 1155-1160.	6.0	372
11	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
12	PHF8 mediates histone H4 lysine 20 demethylation events involved in cell cycle progression. Nature, 2010, 466, 508-512.	13.7	367
13	Protein Architecture of the Human Kinetochore Microtubule Attachment Site. Cell, 2009, 137, 672-684.	13.5	310
14	Fluorescent speckle microscopy, a method to visualize the dynamics of protein assemblies in living cells. Current Biology, 1998, 8, 1227-S1.	1.8	306
15	Centriole Assembly Requires Both Centriolar and Pericentriolar Material Proteins. Developmental Cell, 2004, 7, 815-829.	3.1	273
16	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
17	Broad chromosomal domains of histone modification patterns in <i>C. elegans</i> . Genome Research, 2011, 21, 227-236.	2.4	256
18	A two-step mechanism for epigenetic specification of centromere identity and function. Nature Cell Biology, 2013, 15, 1056-1066.	4.6	226

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19	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
20	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
21	Functional genomics identifies a Myb domain–containing protein family required for assembly of CENP-A chromatin. Journal of Cell Biology, 2007, 176, 757-763.	2.3	203
22	Reconstitution of Physiological Microtubule Dynamics Using Purified Components. Science, 2001, 294, 1340-1343.	6.0	202
23	Structural Memory in the Contractile Ring Makes the Duration of Cytokinesis Independent of Cell Size. Cell, 2009, 137, 926-937.	13.5	193
24	A High-Resolution C.Âelegans Essential Gene Network Based on Phenotypic Profiling of a Complex Tissue. Cell, 2011, 145, 470-482.	13.5	193
25	Anillin and the Septins Promote Asymmetric Ingression of the Cytokinetic Furrow. Developmental Cell, 2007, 12, 827-835.	3.1	191
26	A kinetochore-independent mechanism drives anaphase chromosome separation during acentrosomal meiosis. Nature Cell Biology, 2010, 12, 894-901.	4.6	189
27	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
28	Fibrils Connect Microtubule Tips with Kinetochores: A Mechanism to Couple Tubulin Dynamics to Chromosome Motion. Cell, 2008, 135, 322-333.	13.5	186
29	Visualization of Eukaryotic DNA Mismatch Repair Reveals Distinct Recognition and Repair Intermediates. Cell, 2011, 147, 1040-1053.	13.5	183
30	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
31	The human Mis12 complex is required for kinetochore assembly and proper chromosome segregation. Journal of Cell Biology, 2006, 173, 9-17.	2.3	173
32	Removal of Spindly from microtubule-attached kinetochores controls spindle checkpoint silencing in human cells. Genes and Development, 2010, 24, 957-971.	2.7	173
33	Inhibition of Rac by the GAP Activity of Centralspindlin Is Essential for Cytokinesis. Science, 2008, 322, 1543-1546.	6.0	172
34	A role for Rab5 in structuring the endoplasmic reticulum. Journal of Cell Biology, 2007, 178, 43-56.	2.3	171
35	Implication of a novel multiprotein Dam1p complex in outer kinetochore function. Journal of Cell Biology, 2001, 155, 1137-1146.	2.3	167
36	Acentrosomal spindle assembly and chromosome segregation during oocyte meiosis. Trends in Cell Biology, 2012, 22, 241-249.	3.6	157

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37	A new mechanism controlling kinetochore–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
38	Distinct roles for two C. elegans anillins in the gonad and early embryo. Development (Cambridge), 2005, 132, 2837-2848.	1.2	153
39	"Holo"er than thou: Chromosome segregation and kinetochore function in C. elegans. Chromosome Research, 2004, 12, 641-653.	1.0	147
40	An inverse relationship to germline transcription defines centromeric chromatin in C. elegans. Nature, 2012, 484, 534-537.	13.7	147
41	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
42	Microtubule capture by CENP-E silences BubR1-dependent mitotic checkpoint signaling. Journal of Cell Biology, 2005, 170, 873-880.	2.3	134
43	The minus end in sight. Current Biology, 2003, 13, R614-R624.	1.8	133
44	Tension sensing by Aurora B kinase is independent of survivin-based centromere localization. Nature, 2013, 497, 118-121.	13.7	129
45	Microtubule binding by KNL-1 contributes to spindle checkpoint silencing at the kinetochore. Journal of Cell Biology, 2012, 196, 469-482.	2.3	125
46	Spindle assembly checkpoint activation and silencing at kinetochores. Seminars in Cell and Developmental Biology, 2021, 117, 86-98.	2.3	125
47	A Microtubule-Independent Role for Centrosomes and Aurora A in Nuclear Envelope Breakdown. Developmental Cell, 2007, 12, 515-529.	3.1	123
48	Hierarchical assembly of the eggshell and permeability barrier in <i>C. elegans</i> . Journal of Cell Biology, 2012, 198, 731-748.	2.3	119
49	Acute Drug Treatment in the Early C. elegans Embryo. PLoS ONE, 2011, 6, e24656.	1.1	114
50	A Bir1-Sli15 Complex Connects Centromeres to Microtubules and Is Required to Sense Kinetochore Tension. Cell, 2006, 127, 1179-1191.	13.5	112
51	SAS-4 is recruited to a dynamic structure in newly forming centrioles that is stabilized by the γ-tubulin–mediated addition of centriolar microtubules. Journal of Cell Biology, 2008, 180, 771-785.	2.3	111
52	A Bub1–Mad1 interaction targets the Mad1–Mad2 complex to unattached kinetochores to initiate the spindle checkpoint. Journal of Cell Biology, 2014, 204, 647-657.	2.3	109
53	NOCA-1 functions with $\hat{l}^3$ -tubulin and in parallel to Patronin to assemble non-centrosomal microtubule arrays in C. elegans. ELife, 2015, 4, e08649.	2.8	109
54	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

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55	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
56	Kinetochore–microtubule interactions: the means to the end. Current Opinion in Cell Biology, 2008, 20, 53-63.	2.6	104
57	A toolkit for GFP-mediated tissue-specific protein degradation in <i>C. elegans</i> . Development (Cambridge), 2017, 144, 2694-2701.	1.2	103
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	Kinetochore–spindle microtubule interactions during mitosis. Current Opinion in Cell Biology, 2005, 17, 35-46.	2.6	95
60	Crosstalk Between Microtubule Attachment Complexes Ensures Accurate Chromosome Segregation. Science, 2013, 342, 1239-1242.	6.0	94
61	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
62	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
63	Orientation and structure of the Ndc80 complex on the microtubule lattice. Journal of Cell Biology, 2008, 182, 1055-1061.	2.3	86
64	An FHA domain–mediated protein interaction network of Rad53 reveals its role in polarized cell growth. Journal of Cell Biology, 2006, 175, 743-753.	2.3	85
65	A Small RNA-Catalytic Argonaute Pathway Tunes Germline Transcript Levels to Ensure Embryonic Divisions. Cell, 2016, 165, 396-409.	13.5	82
66	Systematic Analysis in <i>Caenorhabditis elegans </i> Reveals that the Spindle Checkpoint Is Composed of Two Largely Independent Branches. Molecular Biology of the Cell, 2009, 20, 1252-1267.	0.9	81
67	Uncoordinated Loss of Chromatid Cohesion Is a Common Outcome of Extended Metaphase Arrest. PLoS ONE, 2011, 6, e22969.	1.1	81
68	A Cell Biologist's Field Guide to Aurora Kinase Inhibitors. Frontiers in Oncology, 2015, 5, 285.	1.3	80
69	TRIM37 controls cancer-specific vulnerability to PLK4 inhibition. Nature, 2020, 585, 440-446.	13.7	78
70	A Nucleoporin Docks Protein Phosphatase 1 to Direct Meiotic Chromosome Segregation and Nuclear Assembly. Developmental Cell, 2016, 38, 463-477.	3.1	77
71	The Microtubule-Destabilizing Kinesin XKCM1 Is Required for Chromosome Positioning during Spindle Assembly. Current Biology, 2002, 12, 1885-1889.	1.8	75
72	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

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73	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
74	A positive-feedback-based mechanism for constriction rate acceleration during cytokinesis in Caenorhabditis elegans. ELife, 2018, 7, .	2.8	75
75	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
76	The midbody ring scaffolds the abscission machinery in the absence of midbody microtubules. Journal of Cell Biology, 2013, 203, 505-520.	2.3	71
77	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
78	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
79	The chromosomal passenger complex and centralspindlin independently contribute to contractile ring assembly. Journal of Cell Biology, 2011, 193, 155-169.	2.3	62
80	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
81	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
82	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
83	Dephosphorylation of the Ndc80 Tail Stabilizes Kinetochore-Microtubule Attachments via the Ska Complex. Developmental Cell, 2017, 41, 424-437.e4.	3.1	54
84	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
85	Kinetochores accelerate or delay APC/C activation by directing Cdc20 to opposing fates. Genes and Development, 2017, 31, 1089-1094.	2.7	52
86	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
87	A tripartite mechanism catalyzes Mad2-Cdc20 assembly at unattached kinetochores. Science, 2021, 371, 64-67.	6.0	45
88	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
89	Polo-like kinase $1$ independently controls microtubule-nucleating capacity and size of the centrosome. Journal of Cell Biology, 2021, 220, .	2.3	42
90	Rapid De Novo Centromere Formation Occurs Independently of Heterochromatin Protein 1 in C.Aelegans Embryos. Current Biology, 2011, 21, 1800-1807.	1.8	41

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91	Linked in: formation and regulation of microtubule attachments during chromosome segregation. Current Opinion in Cell Biology, 2014, 26, 113-122.	2.6	41
92	Affinity Purification of Protein Complexes in C. elegans. Methods in Cell Biology, 2011, 106, 289-322.	0.5	40
93	Kinetochore-localized BUB-1/BUB-3 complex promotes anaphase onset in <i>C. elegans</i> . Journal of Cell Biology, 2015, 209, 507-517.	2.3	40
94	Mlh2 Is an Accessory Factor for DNA Mismatch Repair in Saccharomyces cerevisiae. PLoS Genetics, 2014, 10, e1004327.	1.5	36
95	Pharmacological convergence reveals a lipid pathway that regulates C. elegans lifespan. Nature Chemical Biology, 2019, 15, 453-462.	3.9	35
96	A Non-canonical BRCT-Phosphopeptide Recognition Mechanism Underlies RhoA Activation in Cytokinesis. Current Biology, 2020, 30, 3101-3115.e11.	1.8	34
97	The Kinetochore-Microtubule Coupling Machinery Is Repurposed in Sensory Nervous System Morphogenesis. Developmental Cell, 2019, 48, 864-872.e7.	3.1	33
98	Structure, assembly and reading of centromeric chromatin. Current Opinion in Genetics and Development, 2012, 22, 139-147.	1.5	31
99	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
100	Centriole-independent mitotic spindle assembly relies on the PCNT–CDK5RAP2 pericentriolar matrix. Journal of Cell Biology, 2020, 219, .	2.3	28
101	Cell division: AAAtacking the mitotic spindle. Current Biology, 2004, 14, R70-R72.	1.8	26
102	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
103	CYK-4 functions independently of its centralspindlin partner ZEN-4 to cellularize oocytes in germline syncytia. ELife, 2018, 7, .	2.8	25
104	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
105	Evolutionary Dynamics and Molecular Mechanisms of HORMA Domain Protein Signaling. Annual Review of Biochemistry, 2022, 91, 541-569.	5.0	23
106	[12] Preparation and characterization of caged fluorescein tubulin. Methods in Enzymology, 1998, 298, 125-132.	0.4	21
107	Tubulin and FtsZ structures: functional and therapeutic implications. BioEssays, 1998, 20, 523-527.	1.2	20
108	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

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109	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
110	[23] Purification and assay of a septin complex from Drosophila embryos. Methods in Enzymology, 1998, 298, 279-295.	0.4	16
111	Microtubule cytoskeleton: No longer an also Ran. Current Biology, 1999, 9, R704-R707.	1.8	15
112	Cdc73 suppresses genome instability by mediating telomere homeostasis. PLoS Genetics, 2018, 14, e1007170.	1.5	15
113	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
114	The wages of CIN. Journal of Cell Biology, 2008, 180, 661-663.	2.3	14
115	Meiotic Double-Strand Breaks Uncover and Protect against Mitotic Errors in the C.Âelegans Germline. Current Biology, 2013, 23, 2400-2406.	1.8	14
116	Proteomics in Caenorhabditis elegans. Briefings in Functional Genomics & Proteomics, 2008, 7, 205-210.	3.8	13
117	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
118	Orthogonal targeting of EGFRvIII expressing glioblastomas through simultaneous EGFR and PLK1 inhibition. Oncotarget, 2015, 6, 11751-11767.	0.8	9
119	Taming the Beast: Control of APC/C <sup>Cdc20</sup> -Dependent Destruction. Cold Spring Harbor Symposia on Quantitative Biology, 2017, 82, 111-121.	2.0	9
120	A high-content imaging approach to profile <i>C. elegans</i> embryonic development. Development (Cambridge), 2019, 146, .	1.2	9
121	Feeling tense enough?. Nature, 2004, 428, 32-33.	13.7	7
122	TRIM37 prevents formation of condensate-organized ectopic spindle poles to ensure mitotic fidelity. Journal of Cell Biology, 2021, 220, .	2.3	7
123	Employing the one-cell C. elegans embryo to study cell division processes. Methods in Cell Biology, 2018, 144, 185-231.	0.5	6
124	The nucleoporin MEL-28/ELYS: A PP1 scaffold during M-phase exit. Cell Cycle, 2017, 16, 489-490.	1.3	5
125	Microtubule Cytoskeleton: A New Twist at the End. Current Biology, 2005, 15, R126-R129.	1.8	4
126	Ancestral roles of the Fam20C family of secreted protein kinases revealed in <i>C. elegans</i> . Journal of Cell Biology, 2019, 218, 3795-3811.	2.3	4

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127	The PHLPP1 N-Terminal Extension Is a Mitotic Cdk1 Substrate and Controls an Interactome Switch. Molecular and Cellular Biology, 2021, 41, .	1.1	4
128	APC7 mediates ubiquitin signaling in constitutive heterochromatin in the developing mammalian brain. Molecular Cell, 2022, 82, 90-105.e13.	4.5	4
129	A PSHaver for Centromeric Histones. Molecular Cell, 2010, 40, 351-352.	4.5	3
130	What the Hec Is Up with Mouse Oocyte Meiosis?. Developmental Cell, 2013, 25, 3-4.	3.1	3
131	The (Theoretical) Yin and Yang of Spindle Mechanics. Developmental Cell, 2002, 3, 465-467.	3.1	2
132	Rashomon at the kinetochore: Function(s) of the Mad1–cyclin B1 complex. Journal of Cell Biology, 2020, 219, .	2.3	2
133	How centrioles acquire the ability to reproduce. ELife, 2017, 6, .	2.8	2
134	When it comes to couple(r)s, do opposites attract?. Nature Structural and Molecular Biology, 2007, 14, 790-792.	3.6	1
135	A new piece in the kinetochore jigsaw puzzle. Journal of Cell Biology, 2014, 206, 457-459.	2.3	1
136	Cell biology. Current Opinion in Cell Biology, 1999, 11, 523-534.	2.6	0
137	Kinetochores. Current Biology, 2000, 10, R508.	1.8	0
138	Cell biology. Current Opinion in Cell Biology, 2002, 14, 661-670.	2.6	0
139	A TOGgle for Tension at Kinetochores. Cell, 2016, 165, 1316-1318.	13.5	0
140	Meiosis: The Origins of Bias. Current Biology, 2017, 27, R1309-R1311.	1.8	0
141	Promoting an "Auteur Theory―for Young Scientists: Preserving Excitement and Creativity …. BioEssays 2018, 40, 1800147.	<sup>5,</sup> 1.2	0
142	A Semi-high-throughput Imaging Method and Data Visualization Toolkit to Analyze <em>C. elegans</em> Embryonic Development. Journal of Visualized Experiments, 2019, , .	0.2	0