

Richard Bayliss

List of Publications by Year in descending order

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papers

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citations

87888
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66
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77
all docs

77
docs citations

77
times ranked

6967
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural Basis of Aurora-A Activation by TPX2 at the Mitotic Spindle. <i>Molecular Cell</i> , 2003, 12, 851-862.	9.7	541
2	Cell cycle regulation by the NEK family of protein kinases. <i>Journal of Cell Science</i> , 2012, 125, 4423-33.	2.0	289
3	GLFG and FxFG Nucleoporins Bind to Overlapping Sites on Importin- β . <i>Journal of Biological Chemistry</i> , 2002, 277, 50597-50606.	3.4	203
4	Efficient genetic encoding of phosphoserine and its nonhydrolyzable analog. <i>Nature Chemical Biology</i> , 2015, 11, 496-503.	8.0	189
5	Differential protein stability and clinical responses of EML4-ALK fusion variants to various ALK inhibitors in advanced ALK-rearranged non-small cell lung cancer. <i>Annals of Oncology</i> , 2017, 28, 791-797.	1.2	178
6	Interaction between NTF2 and xFG-containing nucleoporins is required to mediate nuclear import of RanGDP 1 Edited by I. B. Holland. <i>Journal of Molecular Biology</i> , 1999, 293, 579-593.	4.2	171
7	Neurodevelopmental protein Musashi-1 interacts with the Zika genome and promotes viral replication. <i>Science</i> , 2017, 357, 83-88.	12.6	152
8	EML4-ALK Variants: Biological and Molecular Properties, and the Implications for Patients. <i>Cancers</i> , 2017, 9, 118.	3.7	147
9	Structural basis for the interaction between NTF2 and nucleoporin FxFG repeats. <i>EMBO Journal</i> , 2002, 21, 2843-2853.	7.8	146
10	Crystal structures of the phosphorylated <scp>BRI</scp>1 kinase domain and implications for brassinosteroid signal initiation. <i>Plant Journal</i> , 2014, 78, 31-43.	5.7	142
11	Structural basis of N-Myc binding by Aurora-A and its destabilization by kinase inhibitors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 13726-13731.	7.1	130
12	Molecular mechanism of translocation through nuclear pore complexes during nuclear protein import. <i>FEBS Letters</i> , 2001, 498, 145-149.	2.8	101
13	Crystal structure of EML1 reveals the basis for Hsp90 dependence of oncogenic EML4-ALK by disruption of an atypical β^2 -propeller domain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 5195-5200.	7.1	93
14	On the molecular mechanisms of mitotic kinase activation. <i>Open Biology</i> , 2012, 2, 120136.	3.6	92
15	Activation of Aurora-A Kinase by Protein Partner Binding and Phosphorylation Are Independent and Synergistic. <i>Journal of Biological Chemistry</i> , 2012, 287, 1150-1157.	3.4	91
16	Crystal structure of an Aurora-A mutant that mimics Aurora-B bound to MLN8054: insights into selectivity and drug design. <i>Biochemical Journal</i> , 2010, 427, 19-28.	3.7	86
17	An Autoinhibitory Tyrosine Motif in the Cell-Cycle-Regulated Nek7 Kinase Is Released through Binding of Nek9. <i>Molecular Cell</i> , 2009, 36, 560-570.	9.7	83
18	Molecular mechanisms that underpin EML4-ALK driven cancers and their response to targeted drugs. <i>Cellular and Molecular Life Sciences</i> , 2016, 73, 1209-1224.	5.4	80

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19	<i>Agrobacterium</i> VirB10 domain requirements for type IV secretion and T pilus biogenesis. <i>Molecular Microbiology</i> , 2009, 71, 779-794.	2.5	79
20	Coordination of adjacent domains mediates TACC3-ch-TOG-clathrin assembly and mitotic spindle binding. <i>Journal of Cell Biology</i> , 2013, 202, 463-478.	5.2	76
21	Aurora Isoform Selectivity: Design and Synthesis of Imidazo[4,5- <i>b</i>]pyridine Derivatives as Highly Selective Inhibitors of Aurora-A Kinase in Cells. <i>Journal of Medicinal Chemistry</i> , 2013, 56, 9122-9135.	6.4	70
22	The primary cilium. <i>Organogenesis</i> , 2014, 10, 62-68.	1.2	70
23	Mitotic Regulation by NEK Kinase Networks. <i>Frontiers in Cell and Developmental Biology</i> , 2017, 5, 102.	3.7	68
24	A Large Domain Swap in the VirB11 ATPase of <i>Brucella suis</i> Leaves the Hexameric Assembly Intact. <i>Journal of Molecular Biology</i> , 2006, 360, 56-66.	4.2	67
25	Optimization of Imidazo[4,5- <i>b</i>]pyridine-Based Kinase Inhibitors: Identification of a Dual FLT3/Aurora Kinase Inhibitor as an Orally Bioavailable Preclinical Development Candidate for the Treatment of Acute Myeloid Leukemia. <i>Journal of Medicinal Chemistry</i> , 2012, 55, 8721-8734.	6.4	61
26	Functional Tat Transport of Unstructured, Small, Hydrophilic Proteins. <i>Journal of Biological Chemistry</i> , 2007, 282, 33257-33264.	3.4	60
27	Design of Potent and Selective Hybrid Inhibitors of the Mitotic Kinase Nek2: Structure-Activity Relationship, Structural Biology, and Cellular Activity. <i>Journal of Medicinal Chemistry</i> , 2012, 55, 3228-3241.	6.4	59
28	The Nek8 protein kinase, mutated in the human cystic kidney disease nephronophthisis, is both activated and degraded during ciliogenesis. <i>Human Molecular Genetics</i> , 2012, 21, 1155-1171.	2.9	55
29	Mitotic spindle association of TACC3 requires AuroraA-dependent stabilization of a cryptic α -helix. <i>EMBO Journal</i> , 2018, 37, .	7.8	55
30	Structural Basis of Poly(ADP-ribose) Recognition by the Multizinc Binding Domain of Checkpoint with Forkhead-associated and RING Domains (CHFR). <i>Journal of Biological Chemistry</i> , 2010, 285, 39348-39358.	3.4	54
31	A Kinetic Test Characterizes Kinase Intramolecular and Intermolecular Autophosphorylation Mechanisms. <i>Science Signaling</i> , 2013, 6, ra54.	3.6	51
32	Combined inhibition of Aurora-A and ATR kinases results in regression of MYCN-amplified neuroblastoma. <i>Nature Cancer</i> , 2021, 2, 312-326.	13.2	50
33	Dimerization and interactions of <i>Brucella suis</i> VirB8 with VirB4 and VirB10 are required for its biological activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 7252-7257.	7.1	48
34	NMR structure of a complex between the VirB9/VirB7 interaction domains of the pKM101 type IV secretion system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 1673-1678.	7.1	48
35	Insights into the Conformational Variability and Regulation of Human Nek2 Kinase. <i>Journal of Molecular Biology</i> , 2009, 386, 476-485.	4.2	47
36	Covalent Aurora A regulation by the metabolic integrator coenzyme A. <i>Redox Biology</i> , 2020, 28, 101318.	9.0	45

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37	Hsp72 is targeted to the mitotic spindle by Nek6 to promote K-fiber assembly and mitotic progression. <i>Journal of Cell Biology</i> , 2015, 209, 349-358.	5.2	44
38	TACC3â€ch-TOG track the growing tips of microtubules independently of clathrin and Aurora-A phosphorylation. <i>Biology Open</i> , 2015, 4, 170-179.	1.2	43
39	Aurora-A-Dependent Control of TACC3 Influences the Rate of Mitotic Spindle Assembly. <i>PLoS Genetics</i> , 2015, 11, e1005345.	3.5	43
40	A Cancer-associated Aurora A Mutant Is Mislocalized and Misregulated Due to Loss of Interaction with TPX2. <i>Journal of Biological Chemistry</i> , 2009, 284, 33177-33184.	3.4	40
41	Characterization of Three Druggable Hot-Spots in the Aurora-A/TPX2 Interaction Using Biochemical, Biophysical, and Fragment-Based Approaches. <i>ACS Chemical Biology</i> , 2017, 12, 2906-2914.	3.4	40
42	Orally bioavailable CDK9/2 inhibitor shows mechanism-based therapeutic potential in MYCN-driven neuroblastoma. <i>Journal of Clinical Investigation</i> , 2020, 130, 5875-5892.	8.2	40
43	Insights into Aurora-A Kinase Activation Using Unnatural Amino Acids Incorporated by Chemical Modification. <i>ACS Chemical Biology</i> , 2013, 8, 2184-2191.	3.4	39
44	Allosteric inhibition of Aurora-A kinase by a synthetic vNAR domain. <i>Open Biology</i> , 2016, 6, 160089.	3.6	39
45	Identification, structure and mode of action of a new regulator of the <i>Helicobacter pylori</i> HP0525 ATPase. <i>EMBO Journal</i> , 2007, 26, 4926-4934.	7.8	34
46	Phaseâ€separated foci of EML4â€ALK facilitate signalling and depend upon an active kinase conformation. <i>EMBO Reports</i> , 2021, 22, e53693.	4.5	31
47	Structure-based design of imidazo[1,2-a]pyrazine derivatives as selective inhibitors of Aurora-A kinase in cells. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2010, 20, 5988-5993.	2.2	30
48	Mitotic phosphorylation by NEK6 and NEK7 reduces the microtubule affinity of EML4 to promote chromosome congression. <i>Science Signaling</i> , 2019, 12, .	3.6	30
49	EML4-ALK V3 oncogenic fusion proteins promote microtubule stabilization and accelerated migration through NEK9 and NEK7. <i>Journal of Cell Science</i> , 2020, 133, .	2.0	30
50	Switching Auroraâ€A kinase on and off at an allosteric site. <i>FEBS Journal</i> , 2017, 284, 2947-2954.	4.7	27
51	Functional Analysis of the Hydrophobic Patch on Nuclear Transport Factor 2 Involved in Interactions with the Nuclear Porein Vivo. <i>Journal of Biological Chemistry</i> , 2001, 276, 38820-38829.	3.4	26
52	A moving target: structure and disorder in pursuit of Myc inhibitors. <i>Biochemical Society Transactions</i> , 2017, 45, 709-717.	3.4	26
53	Construction of a Shapeâ€Diverse Fragment Set: Design, Synthesis and Screen against Auroraâ€A Kinase. <i>Chemistry - A European Journal</i> , 2019, 25, 6831-6839.	3.3	26
54	Drugging the â€Undruggableâ€MYCN Oncogenic Transcription Factor: Overcoming Previous Obstacles to Impact Childhood Cancers. <i>Cancer Research</i> , 2021, 81, 1627-1632.	0.9	25

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55	EML proteins in microtubule regulation and human disease. <i>Biochemical Society Transactions</i> , 2016, 44, 1281-1288.	3.4	24
56	Hsp72 and Nek6 Cooperate to Cluster Amplified Centrosomes in Cancer Cells. <i>Cancer Research</i> , 2017, 77, 4785-4796.	0.9	24
57	Binding to an Unusual Inactive Kinase Conformation by Highly Selective Inhibitors of Inositol-Requiring Enzyme 1 \pm Kinase-Endoribonuclease. <i>Journal of Medicinal Chemistry</i> , 2019, 62, 2447-2465.	6.4	23
58	Structural Insights into Separase Architecture and Substrate Recognition through Computational Modelling of Caspase-Like and Death Domains. <i>PLoS Computational Biology</i> , 2015, 11, e1004548.	3.2	20
59	A TPX2 Proteomimetic Has Enhanced Affinity for Aurora-A Due to Hydrocarbon Stapling of a Helix. <i>ACS Chemical Biology</i> , 2016, 11, 3383-3390.	3.4	20
60	The structural mechanisms that underpin mitotic kinase activation. <i>Biochemical Society Transactions</i> , 2013, 41, 1037-1041.	3.4	14
61	7-(Pyrazol-4-yl)-3H-imidazo[4,5-b]pyridine-based derivatives for kinase inhibition: Co-crystallisation studies with Aurora-A reveal distinct differences in the orientation of the pyrazole N1-substituent. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 4203-4209.	2.2	13
62	Structure-guided design of purine-based probes for selective Nek2 inhibition. <i>Oncotarget</i> , 2017, 8, 19089-19124.	1.8	13
63	A Pocket on the Surface of the N-Terminal BRCT Domain of Mcph1 Is Required to Prevent Abnormal Chromosome Condensation. <i>Journal of Molecular Biology</i> , 2010, 395, 908-915.	4.2	12
64	Structure of a Potential Therapeutic Antibody Bound to Interleukin-16 (IL-16). <i>Journal of Biological Chemistry</i> , 2016, 291, 16840-16848.	3.4	11
65	Diverse Functionalization of Aurora-A Kinase at Specified Surface and Buried Sites by Native Chemical Modification. <i>PLoS ONE</i> , 2014, 9, e103935.	2.5	10
66	A closed conformation of the <i>Caenorhabditis elegans</i> separase α -securin complex. <i>Open Biology</i> , 2016, 6, 160032.	3.6	10
67	Type II Kinase Inhibitors Targeting Cys-Gatekeeper Kinases Display Orthogonality with Wild Type and Ala/Gly-Gatekeeper Kinases. <i>ACS Chemical Biology</i> , 2018, 13, 2956-2965.	3.4	10
68	Mitotic phosphorylation regulates Hsp72 spindle localization by uncoupling ATP binding from substrate release. <i>Science Signaling</i> , 2018, 11, .	3.6	8
69	Discovery and Optimization of wt-RET/KDR-Selective Inhibitors of RET ^{V804M} Kinase. <i>ACS Medicinal Chemistry Letters</i> , 2020, 11, 497-505.	2.8	8
70	2-Arylamino-6-ethynylpurines are cysteine-targeting irreversible inhibitors of Nek2 kinase. <i>RSC Medicinal Chemistry</i> , 2020, 11, 707-731.	3.9	8
71	Synthesis and profiling of a 3-aminopyridin-2-one-based kinase targeted fragment library: Identification of 3-amino-5-(pyridin-4-yl)pyridin-2(1H)-one scaffold for monopolar spindle 1 (MPS1) and Aurora kinases inhibition. <i>Bioorganic and Medicinal Chemistry</i> , 2018, 26, 3021-3029.	3.0	7
72	Defining endogenous TACC3 α -chTOG α -clathrin α -GTSE1 interactions at the mitotic spindle using induced relocalization. <i>Journal of Cell Science</i> , 2021, 134, .	2.0	7

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73	New tools for evaluating protein tyrosine sulfation and carbohydrate sulfation. Biochemical Journal, 2018, 475, 3035-3037.	3.7	6
74	Solution NMR assignment of the cryptic sixth TOG domain of mini spindles. Biomolecular NMR Assignments, 2015, 9, 411-413.	0.8	5
75	Detection of Ligand-induced Conformational Changes in the Activation Loop of AuroraA Kinase by PELDOR Spectroscopy. ChemistryOpen, 2016, 5, 531-534.	1.9	5
76	Solution NMR assignment of the C-terminal domain of human chTOG. Biomolecular NMR Assignments, 2018, 12, 221-224.	0.8	5
77	Exploring the Conformational Landscape and Stability of Aurora A Using Ion-Mobility Mass Spectrometry and Molecular Modeling. Journal of the American Society for Mass Spectrometry, 2022, 33, 420-435.	2.8	3