

Dario R Alessi

List of Publications by Year in descending order

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120
papers

31,028
citations

15001

68
h-index

22488

117
g-index

150
all docs

150
docs citations

150
times ranked

36113
citing authors

#	ARTICLE	IF	CITATIONS
1	Inhibition of glycogen synthase kinase-3 by insulin mediated by protein kinase B. <i>Nature</i> , 1995, 378, 785-789.	13.7	4,694
2	Characterization of a 3-phosphoinositide-dependent protein kinase which phosphorylates and activates protein kinase B β . <i>Current Biology</i> , 1997, 7, 261-269.	1.8	2,612
3	The selectivity of protein kinase inhibitors: a further update. <i>Biochemical Journal</i> , 2007, 408, 297-315.	1.7	2,287
4	The PI3K \rightarrow PDK1 connection: more than just a road to PKB. <i>Biochemical Journal</i> , 2000, 346, 561-576.	1.7	1,386
5	The nuts and bolts of AGC protein kinases. <i>Nature Reviews Molecular Cell Biology</i> , 2010, 11, 9-22.	16.1	1,137
6	mTOR complex 2 (mTORC2) controls hydrophobic motif phosphorylation and activation of serum- and glucocorticoid-induced protein kinase 1 (SGK1). <i>Biochemical Journal</i> , 2008, 416, 375-385.	1.7	816
7	Mammalian target of rapamycin is a direct target for protein kinase B: identification of a convergence point for opposing effects of insulin and amino-acid deficiency on protein translation. <i>Biochemical Journal</i> , 1999, 344, 427-431.	1.7	795
8	Phosphoproteomics reveals that Parkinson's disease kinase LRRK2 regulates a subset of Rab GTPases. <i>ELife</i> , 2016, 5, .	2.8	766
9	PDK1, the master regulator of AGC kinase signal transduction. <i>Seminars in Cell and Developmental Biology</i> , 2004, 15, 161-170.	2.3	715
10	LKB1-Dependent Signaling Pathways. <i>Annual Review of Biochemistry</i> , 2006, 75, 137-163.	5.0	707
11	3-Phosphoinositide-dependent protein kinase-1 (PDK1): structural and functional homology with the <i>Drosophila</i> DSTPK61 kinase. <i>Current Biology</i> , 1997, 7, 776-789.	1.8	691
12	Molecular basis for the substrate specificity of protein kinase B; comparison with MAPKAP kinase-1 and p70 S6 kinase. <i>FEBS Letters</i> , 1996, 399, 333-338.	1.3	563
13	Comparative host-coronavirus protein interaction networks reveal pan-viral disease mechanisms. <i>Science</i> , 2020, 370, .	6.0	508
14	LRRK2 phosphorylates moesin at threonine-558: characterization of how Parkinson's disease mutants affect kinase activity. <i>Biochemical Journal</i> , 2007, 405, 307-317.	1.7	466
15	The WNK1 and WNK4 protein kinases that are mutated in Gordon's hypertension syndrome phosphorylate and activate SPAK and OSR1 protein kinases. <i>Biochemical Journal</i> , 2005, 391, 17-24.	1.7	444
16	Ku-0063794 is a specific inhibitor of the mammalian target of rapamycin (mTOR). <i>Biochemical Journal</i> , 2009, 421, 29-42.	1.7	436
17	Rab29 activation of the Parkinson's disease-associated LRRK2 kinase. <i>EMBO Journal</i> , 2018, 37, 1-18.	3.5	386
18	Characterization of a selective inhibitor of the Parkinson's disease kinase LRRK2. <i>Nature Chemical Biology</i> , 2011, 7, 203-205.	3.9	380

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19	LRRK2 activation in idiopathic Parkinson's disease. <i>Science Translational Medicine</i> , 2018, 10, .	5.8	363
20	14-3-3 binding to LRRK2 is disrupted by multiple Parkinson's disease-associated mutations and regulates cytoplasmic localization. <i>Biochemical Journal</i> , 2010, 430, 393-404.	1.7	355
21	Inhibition of LRRK2 kinase activity leads to dephosphorylation of Ser910/Ser935, disruption of 14-3-3 binding and altered cytoplasmic localization. <i>Biochemical Journal</i> , 2010, 430, 405-413.	1.7	355
22	The control of protein phosphatase-1 by targetting subunits. The major myosin phosphatase in avian smooth muscle is a novel form of protein phosphatase-1. <i>FEBS Journal</i> , 1992, 210, 1023-1035.	0.2	350
23	Systematic proteomic analysis of LRRK2-mediated Rab GTPase phosphorylation establishes a connection to ciliogenesis. <i>ELife</i> , 2017, 6, .	2.8	344
24	Specific binding of the Akt-1 protein kinase to phosphatidylinositol 3,4,5-trisphosphate without subsequent activation. <i>Biochemical Journal</i> , 1996, 315, 709-713.	1.7	314
25	Activation of protein kinase B β and δ isoforms by insulin in vivo and by 3-phosphoinositide-dependent protein kinase-1 in vitro: comparison with protein kinase B α . <i>Biochemical Journal</i> , 1998, 331, 299-308.	1.7	268
26	The regulation of salt transport and blood pressure by the WNK-SPAK/OSR1 signalling pathway. <i>Journal of Cell Science</i> , 2008, 121, 3293-3304.	1.2	261
27	USP7 small-molecule inhibitors interfere with ubiquitin binding. <i>Nature</i> , 2017, 550, 534-538.	13.7	258
28	Functional counterparts of mammalian protein kinases PDK1 and SGK in budding yeast. <i>Current Biology</i> , 1999, 9, 186-S4.	1.8	255
29	Phosphoprotein Analysis Using Antibodies Broadly Reactive against Phosphorylated Motifs. <i>Journal of Biological Chemistry</i> , 2002, 277, 39379-39387.	1.6	235
30	Characterization of VPS34-IN1, a selective inhibitor of Vps34, reveals that the phosphatidylinositol 3-phosphate-binding SGK3 protein kinase is a downstream target of class III phosphoinositide 3-kinase. <i>Biochemical Journal</i> , 2014, 463, 413-427.	1.7	233
31	LRRK2 kinase in Parkinson's disease. <i>Science</i> , 2018, 360, 36-37.	6.0	233
32	PDK1, one of the missing links in insulin signal transduction?1. <i>FEBS Letters</i> , 1997, 410, 3-10.	1.3	230
33	The WNK-SPAK/OSR1 pathway: Master regulator of cation-chloride cotransporters. <i>Science Signaling</i> , 2014, 7, re3.	1.6	218
34	Further evidence that the inhibition of glycogen synthase kinase-3 β by IGF-1 is mediated by PDK1/PKB-induced phosphorylation of Ser-9 and not by dephosphorylation of Tyr-216. <i>FEBS Letters</i> , 1997, 416, 307-311.	1.3	213
35	The protein kinase C inhibitors Ro 318220 and GF 109203X are equally potent inhibitors of MAPKAP kinase-1 β (Rsk-2) and p70 S6 kinase. <i>FEBS Letters</i> , 1997, 402, 121-123.	1.3	192
36	PDK1-SGK1 Signaling Sustains AKT-Independent mTORC1 Activation and Confers Resistance to PI3K α Inhibition. <i>Cancer Cell</i> , 2016, 30, 229-242.	7.7	187

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37	Substrate specificity and inhibitors of LRRK2, a protein kinase mutated in Parkinson's disease. <i>Biochemical Journal</i> , 2009, 424, 47-60.	1.7	186
38	Homo-PROTACs: bivalent small-molecule dimerizers of the VHL E3 ubiquitin ligase to induce self-degradation. <i>Nature Communications</i> , 2017, 8, 830.	5.8	184
39	The IκB Kinase Family Phosphorylates the Parkinson's Disease Kinase LRRK2 at Ser935 and Ser910 during Toll-Like Receptor Signaling. <i>PLoS ONE</i> , 2012, 7, e39132.	1.1	183
40	Inhibitor-2 functions like a chaperone to fold three expressed isoforms of mammalian protein phosphatase-1 into a conformation with the specificity and regulatory properties of the native enzyme. <i>FEBS Journal</i> , 1993, 213, 1055-1066.	0.2	181
41	The CUL3-KLHL3 E3 ligase complex mutated in Gordon's hypertension syndrome interacts with and ubiquitylates WNK isoforms: disease-causing mutations in KLHL3 and WNK4 disrupt interaction. <i>Biochemical Journal</i> , 2013, 451, 111-122.	1.7	181
42	The WNK-regulated SPAK/OSR1 kinases directly phosphorylate and inhibit the K ⁺ -Cl ⁻ co-transporters. <i>Biochemical Journal</i> , 2014, 458, 559-573.	1.7	174
43	A pathway for Parkinson's Disease LRRK2 kinase to block primary cilia and Sonic hedgehog signaling in the brain. <i>ELife</i> , 2018, 7, .	2.8	170
44	In vivo role of the PIF-binding docking site of PDK1 defined by knock-in mutation. <i>EMBO Journal</i> , 2003, 22, 4202-4211.	3.5	166
45	A plasmid DNA-launched SARS-CoV-2 reverse genetics system and coronavirus toolkit for COVID-19 research. <i>PLoS Biology</i> , 2021, 19, e3001091.	2.6	163
46	Protor-1 is required for efficient mTORC2-mediated activation of SGK1 in the kidney. <i>Biochemical Journal</i> , 2011, 436, 169-179.	1.7	162
47	New Insights into mTOR Signaling: mTORC2 and Beyond. <i>Science Signaling</i> , 2009, 2, pe27.	1.6	160
48	The Parkinson's disease VPS35[D620N] mutation enhances LRRK2-mediated Rab protein phosphorylation in mouse and human. <i>Biochemical Journal</i> , 2018, 475, 1861-1883.	1.7	157
49	DAPP1: a dual adaptor for phosphotyrosine and 3-phosphoinositides. <i>Biochemical Journal</i> , 1999, 342, 7-12.	1.7	150
50	Phos-tag analysis of Rab10 phosphorylation by LRRK2: a powerful assay for assessing kinase function and inhibitors. <i>Biochemical Journal</i> , 2016, 473, 2671-2685.	1.7	147
51	Elevated SGK1 predicts resistance of breast cancer cells to Akt inhibitors. <i>Biochemical Journal</i> , 2013, 452, 499-508.	1.7	141
52	LRRK2 is a negative regulator of <i>Mycobacterium tuberculosis</i> phagosome maturation in macrophages. <i>EMBO Journal</i> , 2018, 37, .	3.5	140
53	GSK2578215A; A potent and highly selective 2-arylmethoxy-5-substituent-N-arylbenzamide LRRK2 kinase inhibitor. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2012, 22, 5625-5629.	1.0	138
54	Interrogating Parkinson's disease LRRK2 kinase pathway activity by assessing Rab10 phosphorylation in human neutrophils. <i>Biochemical Journal</i> , 2018, 475, 23-44.	1.7	136

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55	Characterization of GSK2334470, a novel and highly specific inhibitor of PDK1. <i>Biochemical Journal</i> , 2011, 433, 357-369.	1.7	128
56	Characterisation of a plant 3-phosphoinositide-dependent protein kinase-1 homologue which contains a pleckstrin homology domain. <i>FEBS Letters</i> , 1999, 451, 220-226.	1.3	123
57	Development of phospho-specific Rab protein antibodies to monitor <i>in vivo</i> activity of the LRRK2 Parkinson's disease kinase. <i>Biochemical Journal</i> , 2018, 475, 1-22.	1.7	123
58	Molecular cloning of cDNA encoding the 110 kDa and 21 kDa regulatory subunits of smooth muscle protein phosphatase 1M. <i>FEBS Letters</i> , 1994, 356, 51-55.	1.3	119
59	Brain Penetrant LRRK2 Inhibitor. <i>ACS Medicinal Chemistry Letters</i> , 2012, 3, 658-662.	1.3	119
60	SPAK/OSR1 regulate NKCC1 and WNK activity: analysis of WNK isoform interactions and activation by T-loop trans-autophosphorylation. <i>Biochemical Journal</i> , 2012, 441, 325-337.	1.7	117
61	Phosphorylation of STIM1 at ERK1/2 target sites modulates store-operated calcium entry. <i>Journal of Cell Science</i> , 2010, 123, 3084-3093.	1.2	108
62	Advances in elucidating the function of leucine-rich repeat protein kinase-2 in normal cells and Parkinson's disease. <i>Current Opinion in Cell Biology</i> , 2020, 63, 102-113.	2.6	99
63	Use of Akt Inhibitor and a Drug-resistant Mutant Validates a Critical Role for Protein Kinase B/Akt in the Insulin-dependent Regulation of Glucose and System A Amino Acid Uptake. <i>Journal of Biological Chemistry</i> , 2008, 283, 27653-27667.	1.6	96
64	PPM1H phosphatase counteracts LRRK2 signaling by selectively dephosphorylating Rab proteins. <i>ELife</i> , 2019, 8, .	2.8	94
65	Structural insights into the recognition of substrates and activators by the OSR1 kinase. <i>EMBO Reports</i> , 2007, 8, 839-845.	2.0	89
66	Membrane association but not identity is required for LRRK2 activation and phosphorylation of Rab GTPases. <i>Journal of Cell Biology</i> , 2019, 218, 4157-4170.	2.3	88
67	Rapid and Reversible Knockdown of Endogenously Tagged Endosomal Proteins via an Optimized HaloPROTAC Degradator. <i>ACS Chemical Biology</i> , 2019, 14, 882-892.	1.6	88
68	Crystal structure of the phosphatidylinositol 3,4-bisphosphate-binding pleckstrin homology (PH) domain of tandem PH-domain-containing protein 1 (TAPP1): molecular basis of lipid specificity. <i>Biochemical Journal</i> , 2001, 358, 287-294.	1.7	87
69	Lithium inhibits caspase 3 activation and dephosphorylation of PKB and GSK3 induced by K ⁺ deprivation in cerebellar granule cells. <i>Journal of Neurochemistry</i> , 2001, 78, 199-206.	2.1	87
70	Comprehensive characterization and optimization of anti-LRRK2 (leucine-rich repeat kinase 2) monoclonal antibodies. <i>Biochemical Journal</i> , 2013, 453, 101-113.	1.7	84
71	The hVps34-SGK3 pathway alleviates sustained PI3K/Akt inhibition by stimulating mTORC1 and tumour growth. <i>EMBO Journal</i> , 2016, 35, 1902-1922.	3.5	77
72	Phosphorylation of Synaptic Vesicle Protein 2A at Thr84 by Casein Kinase 1 Family Kinases Controls the Specific Retrieval of Synaptotagmin-1. <i>Journal of Neuroscience</i> , 2015, 35, 2492-2507.	1.7	70

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73	Structural and biochemical characterization of the KLHL3-WNK kinase interaction important in blood pressure regulation. <i>Biochemical Journal</i> , 2014, 460, 237-246.	1.7	68
74	Design and Characterization of SGK3-PROTAC1, an Isoform Specific SGK3 Kinase PROTAC Degradere. <i>ACS Chemical Biology</i> , 2019, 14, 2024-2034.	1.6	67
75	Structural Basis for Rab8a Recruitment of RILPL2 via LRRK2 Phosphorylation of Switch 2. <i>Structure</i> , 2020, 28, 406-417.e6.	1.6	63
76	Akt is efficiently activated by PIF-pocket- and PtdIns(3,4,5)-dependent mechanisms leading to resistance to PDK1 inhibitors. <i>Biochemical Journal</i> , 2012, 448, 285-295.	1.7	61
77	Crystal structure of the WD40 domain dimer of LRRK2. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 1579-1584.	3.3	60
78	Nerve growth factor promotes activation of the alpha, beta and gamma isoforms of protein kinase B in PC12 pheochromocytoma cells. <i>FEBS Journal</i> , 1998, 251, 195-200.	0.2	59
79	Photoactivatable Prodrugs of Antimelanoma Agent Vemurafenib. <i>ACS Chemical Biology</i> , 2015, 10, 2099-2107.	1.6	52
80	USP45 deubiquitylase controls ERCC1-XPF endonuclease-mediated DNA damage responses. <i>EMBO Journal</i> , 2015, 34, 326-343.	3.5	48
81	Endogenous Rab29 does not impact basal or stimulated LRRK2 pathway activity. <i>Biochemical Journal</i> , 2020, 477, 4397-4423.	1.7	48
82	Investigation of LKB1 Ser431 phosphorylation and Cys433 farnesylation using mouse knockin analysis reveals an unexpected role of prenylation in regulating AMPK activity. <i>Biochemical Journal</i> , 2014, 458, 41-56.	1.7	47
83	Pathogenic LRRK2 control of primary cilia and Hedgehog signaling in neurons and astrocytes of mouse brain. <i>ELife</i> , 2021, 10, .	2.8	47
84	Peroxovanadate induces tyrosine phosphorylation of phosphoinositide-dependent protein kinase-1. <i>FEBS Journal</i> , 2000, 267, 6642-6649.	0.2	46
85	Discovery of a Pyrrolopyrimidine (JH-II-127), a Highly Potent, Selective, and Brain Penetrant LRRK2 Inhibitor. <i>ACS Medicinal Chemistry Letters</i> , 2015, 6, 584-589.	1.3	46
86	Structural determinants for ERK5 (MAPK7) and leucine rich repeat kinase 2 activities of benzo[e]pyrimido-[5,4-b]diazepine-6(11H)-ones. <i>European Journal of Medicinal Chemistry</i> , 2013, 70, 758-767.	2.6	45
87	Vomocytosis of live pathogens from macrophages is regulated by the atypical MAP kinase ERK5. <i>Science Advances</i> , 2017, 3, e1700898.	4.7	45
88	Accurate MS-based Rab10 Phosphorylation Stoichiometry Determination as Readout for LRRK2 Activity in Parkinson's Disease. <i>Molecular and Cellular Proteomics</i> , 2020, 19, 1546-1560.	2.5	45
89	Structural and Atropisomeric Factors Governing the Selectivity of Pyrimido-benzodiazepinones as Inhibitors of Kinases and Bromodomains. <i>ACS Chemical Biology</i> , 2018, 13, 2438-2448.	1.6	44
90	R1441G but not G2019S mutation enhances LRRK2 mediated Rab10 phosphorylation in human peripheral blood neutrophils. <i>Acta Neuropathologica</i> , 2021, 142, 475-494.	3.9	44

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91	In vivo role of the phosphate groove of PDK1 defined by knockin mutation. <i>Journal of Cell Science</i> , 2005, 118, 5023-5034.	1.2	42
92	Structure of the OSR1 kinase, a hypertension drug target. <i>Proteins: Structure, Function and Bioinformatics</i> , 2008, 73, 1082-1087.	1.5	39
93	Functional kinomics establishes a critical node of volume-sensitive cation-Cl ⁻ cotransporter regulation in the mammalian brain. <i>Scientific Reports</i> , 2016, 6, 35986.	1.6	38
94	Impact of Type II LRRK2 inhibitors on signaling and mitophagy. <i>Biochemical Journal</i> , 2021, 478, 3555-3573.	1.7	37
95	Development of a multiplexed targeted mass spectrometry assay for LRRK2-phosphorylated Rabs and Ser910/Ser935 biomarker sites. <i>Biochemical Journal</i> , 2021, 478, 299-326.	1.7	37
96	Development of BromoTag: A Bump-and-Hole PROTAC System to Induce Potent, Rapid, and Selective Degradation of Tagged Target Proteins. <i>Journal of Medicinal Chemistry</i> , 2021, 64, 15477-15502.	2.9	37
97	Effects of exercise on mitogen- and stress-activated kinase signal transduction in human skeletal muscle. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2000, 279, R1716-R1721.	0.9	36
98	Critical role of the SPAK protein kinase CCT domain in controlling blood pressure. <i>Human Molecular Genetics</i> , 2015, 24, 4545-4558.	1.4	34
99	Structural Characterization of LRRK2 Inhibitors. <i>Journal of Medicinal Chemistry</i> , 2015, 58, 3751-3756.	2.9	34
100	Mechanism of activation of SGK3 by growth factors via the Class 1 and Class 3 PI3Ks. <i>Biochemical Journal</i> , 2018, 475, 117-135.	1.7	33
101	Deciphering the LRRK code: LRRK1 and LRRK2 phosphorylate distinct Rab proteins and are regulated by diverse mechanisms. <i>Biochemical Journal</i> , 2021, 478, 553-578.	1.7	32
102	Partial purification and characterization of a wortmannin-sensitive and insulin-stimulated protein kinase that activates heart 6-phosphofructo-2-kinase. <i>Biochemical Journal</i> , 2000, 347, 305-312.	1.7	29
103	Small-Molecule Inhibitors of LRRK2. <i>Advances in Neurobiology</i> , 2017, 14, 241-264.	1.3	29
104	Regulation of membrane ruffling by polarized STIM1 and ORAI1 in cortactin-rich domains. <i>Scientific Reports</i> , 2017, 7, 383.	1.6	23
105	Interplay between Polo kinase, LKB1-activated NUAK1 kinase, PP1 ² MYPT1 phosphatase complex and the SCF ¹ TrCP E3 ubiquitin ligase. <i>Biochemical Journal</i> , 2014, 461, 233-245.	1.7	20
106	Nigrostriatal pathology with reduced astrocytes in LRRK2 S910/S935 phosphorylation deficient knockin mice. <i>Neurobiology of Disease</i> , 2018, 120, 76-87.	2.1	16
107	Kinase and channel activity of TRPM6 are co-ordinated by a dimerization motif and pocket interaction. <i>Biochemical Journal</i> , 2014, 460, 165-175.	1.7	15
108	LRP10 interacts with SORL1 in the intracellular vesicle trafficking pathway in non-neuronal brain cells and localises to Lewy bodies in Parkinson's disease and dementia with Lewy bodies. <i>Acta Neuropathologica</i> , 2021, 142, 117-137.	3.9	15

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109	Phosphoproteomics reveals that the hVPS34 regulated SGK3 kinase specifically phosphorylates endosomal proteins including Syntaxin-7, Syntaxin-12, RFIP4 and WDR44. <i>Biochemical Journal</i> , 2019, 476, 3081-3107.	1.7	14
110	Role of KLHL3 and dietary K ⁺ in regulating KS-WNK1 expression. <i>American Journal of Physiology - Renal Physiology</i> , 2021, 320, F734-F747.	1.3	11
111	Cellâ€™s intrinsic function of TAPP adaptors in controlling germinal center responses and autoantibody production in mice. <i>European Journal of Immunology</i> , 2017, 47, 280-290.	1.6	10
112	PP1 Phosphatase Complexes: Undruggable No Longer. <i>Cell</i> , 2018, 174, 1049-1051.	13.5	10
113	Structural basis for the specificity of PPM1H phosphatase for Rab GTPases. <i>EMBO Reports</i> , 2021, 22, e52675.	2.0	10
114	Discovery of potent and selective 5-azaindazole inhibitors of leucine-rich repeat kinase 2 (LRRK2) â€™ Part 1. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2019, 29, 668-673.	1.0	9
115	Human Peripheral Blood Neutrophil Isolation for Interrogating the Parkinson's Associated LRRK2 Kinase Pathway by Assessing Rab10 Phosphorylation. <i>Journal of Visualized Experiments</i> , 2020, , .	0.2	9
116	Sequence and structural variations determining the recruitment of WNK kinases to the KLHL3 E3 ligase. <i>Biochemical Journal</i> , 2022, 479, 661-675.	1.7	4
117	A possible mechanism by which Protein Kinase B is phosphorylated at Ser473. <i>Biochemical Society Transactions</i> , 1999, 27, A73-A73.	1.6	0
118	A possible mechanism by which Protein Kinase B is phosphorylated at Ser473. <i>Biochemical Society Transactions</i> , 1999, 27, A106-A106.	1.6	0
119	Suppression of cAMP/dexamethasone induced glucose-6-phosphatase gene transcription by insulin. <i>Biochemical Society Transactions</i> , 1999, 27, A106-A106.	1.6	0
120	Signal Transduction Downstream of PI 3-kinase. <i>Biochemical Society Transactions</i> , 2001, 29, A59-A59.	1.6	0