# Miles D Houslay

## List of Publications by Citations



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| 208 papers | 16,249 citations | 70 h-index | 123 g-index |
| 214 ext. papers | 17,450 ext. citations | 7.6 avg, IF | 6.35 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 208 | PDE4 cAMP phosphodiesterases: modular enzymes that orchestrate signalling cross-talk, desensitization and compartmentalization. *Biochemical Journal*, **2003**, 370, 1-18 | 3.8 | 646 |
| 207 | DISC1 and PDE4B are interacting genetic factors in schizophrenia that regulate cAMP signaling. *Science*, **2005**, 310, 1187-91 | 33.3 | 542 |
| 206 | Keynote review: phosphodiesterase-4 as a therapeutic target. *Drug Discovery Today*, **2005**, 10, 1503-19 | 8.8 | 530 |
| 205 | Behavioral phenotypes of Disc1 missense mutations in mice. *Neuron*, **2007**, 54, 387-402 | 13.9 | 445 |
| 204 | Targeting of cyclic AMP degradation to beta 2-adrenergic receptors by beta-arrestins. *Science*, **2002** , 298, 834-6 | 33.3 | 428 |
| 203 | Normal p21N-ras couples bombesin and other growth factor receptors to inositol phosphate production. *Nature*, **1986**, 323, 173-6 | 50.4 | 396 |
| 202 | Activation of two signal-transduction systems in hepatocytes by glucagon. *Nature*, **1986**, 323, 68-71 | 50.4 | 356 |
| 201 | Underpinning compartmentalised cAMP signalling through targeted cAMP breakdown. *Trends in Biochemical Sciences*, **2010**, 35, 91-100 | 10.3 | 337 |
| 200 | The RACK1 scaffold protein: a dynamic cog in cell response mechanisms. *Molecular Pharmacology*, **2002**, 62, 1261-73 | 4.3 | 328 |
| 199 | Disrupted-in-Schizophrenia 1 (DISC1) regulates spines of the glutamate synapse via Rac1. *Nature Neuroscience*, **2010**, 13, 327-32 | 25.5 | 323 |
| 198 | beta-Arrestin-mediated PDE4 cAMP phosphodiesterase recruitment regulates beta-adrenoceptor switching from Gs to Gi. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 940-5 | 11.5 | 322 |
| 197 | Fluorescence resonance energy transfer-based analysis of cAMP dynamics in live neonatal rat cardiac myocytes reveals distinct functions of compartmentalized phosphodiesterases. *Circulation Research*, **2004**, 95, 67-75 | 15.7 | 309 |
| 196 | Sleep deprivation impairs cAMP signalling in the hippocampus. *Nature*, **2009**, 461, 1122-5 | 50.4 | 285 |
| 195 | 'Crosstalk': a pivotal role for protein kinase C in modulating relationships between signal transduction pathways. *FEBS Journal*, **1991**, 195, 9-27 | | 275 |
| 194 | The multienzyme PDE4 cyclic adenosine monophosphate-specific phosphodiesterase family: intracellular targeting, regulation, and selective inhibition by compounds exerting anti-inflammatory and antidepressant actions. *Advances in Pharmacology*, **1998**, 44, 225-342 | 5.7 | 249 |
| 193 | cAMP-Specific phosphodiesterase-4 enzymes in the cardiovascular system: a molecular toolbox for generating compartmentalized cAMP signaling. *Circulation Research*, **2007**, 100, 950-66 | 15.7 | 247 |
| 192 | The RACK1 signaling scaffold protein selectively interacts with the cAMP-specific phosphodiesterase PDE4D5 isoform. *Journal of Biological Chemistry*, **1999**, 274, 14909-17 | 5.4 | 241 |

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| 191 | The MAP kinase ERK2 inhibits the cyclic AMP-specific phosphodiesterase HSPDE4D3 by phosphorylating it at Ser579. *EMBO Journal*, **1999**, 18, 893-903 | 13 | 241 |
| 190 | Compartmentalized phosphodiesterase-2 activity blunts beta-adrenergic cardiac inotropy via an NO/cGMP-dependent pathway. *Circulation Research*, **2006**, 98, 226-34 | 15.7 | 226 |
| 189 | Long PDE4 cAMP specific phosphodiesterases are activated by protein kinase A-mediated phosphorylation of a single serine residue in Upstream Conserved Region 1 (UCR1). *British Journal of Pharmacology*, **2002**, 136, 421-33 | 8.6 | 198 |
| 188 | PDE4 cAMP-specific phosphodiesterases. *Progress in Molecular Biology and Translational Science*, **2001**, 69, 249-315 | | 197 |
| 187 | ERK2 mitogen-activated protein kinase binding, phosphorylation, and regulation of the PDE4D cAMP-specific phosphodiesterases. The involvement of COOH-terminal docking sites and NH2-terminal UCR regions. *Journal of Biological Chemistry*, **2000**, 275, 16609-17 | 5.4 | 194 |
| 186 | RNA silencing identifies PDE4D5 as the functionally relevant cAMP phosphodiesterase interacting with beta arrestin to control the protein kinase A/AKAP79-mediated switching of the beta2-adrenergic receptor to activation of ERK in HEK293B2 cells. *Journal of Biological Chemistry*, **2005**, 280, 35176-80 | 5.4 | 172 |
| 185 | Cell-Type Specific Integration of Cross-Talk between Extracellular Signal-Regulated Kinase and cAMP Signaling. *Molecular Pharmacology*, **2000**, 58, 659-668 | 4.3 | 172 |
| 184 | Compartmentalisation of phosphodiesterases and protein kinase A: opposites attract. *FEBS Letters*, **2005**, 579, 3264-70 | 3.8 | 163 |
| 183 | A complex between FAK, RACK1, and PDE4D5 controls spreading initiation and cancer cell polarity. *Current Biology*, **2010**, 20, 1086-92 | 6.3 | 162 |
| 182 | DISC1-dependent switch from progenitor proliferation to migration in the developing cortex. *Nature*, **2011**, 473, 92-6 | 50.4 | 160 |
| 181 | Protein kinase A type I and type II define distinct intracellular signaling compartments. *Circulation Research*, **2008**, 103, 836-44 | 15.7 | 158 |
| 180 | PGE(1) stimulation of HEK293 cells generates multiple contiguous domains with different [cAMP]: role of compartmentalized phosphodiesterases. *Journal of Cell Biology*, **2006**, 175, 441-51 | 7.3 | 155 |
| 179 | Integrating cardiac PIP3 and cAMP signaling through a PKA anchoring function of p110 *Molecular Cell*, **2011**, 42, 84-95 | 17.6 | 150 |
| 178 | cAMP-specific phosphodiesterase HSPDE4D3 mutants which mimic activation and changes in rolipram inhibition triggered by protein kinase A phosphorylation of Ser-54: generation of a molecular model. *Biochemical Journal*, **1998**, 333 ( Pt 1), 139-49 | 3.8 | 150 |
| 177 | Isoform-selective susceptibility of DISC1/phosphodiesterase-4 complexes to dissociation by elevated intracellular cAMP levels. *Journal of Neuroscience*, **2007**, 27, 9513-24 | 6.6 | 144 |
| 176 | Insulin trigger, cyclic AMP-dependent activation and phosphorylation of a plasma membrane cyclic AMP phosphodiesterase. *Nature*, **1980**, 286, 904-6 | 50.4 | 135 |
| 175 | Scanning peptide array analyses identify overlapping binding sites for the signalling scaffold proteins, beta-arrestin and RACK1, in cAMP-specific phosphodiesterase PDE4D5. *Biochemical Journal*, **2006**, 398, 23-36 | 3.8 | 133 |
| 174 | Attenuation of the activity of the cAMP-specific phosphodiesterase PDE4A5 by interaction with the immunophilin XAP2. *Journal of Biological Chemistry*, **2003**, 278, 33351-63 | 5.4 | 132 |

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|---|---|---|---|
| 173 | Derivation of endothelial cells from human embryonic stem cells by directed differentiation: analysis of microRNA and angiogenesis in vitro and in vivo. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2010**, 30, 1389-97 | 9.4 | 131 |
| 172 | Sleep deprivation causes memory deficits by negatively impacting neuronal connectivity in hippocampal area CA1. *ELife*, **2016**, 5, | 8.9 | 128 |
| 171 | TAPAS-1, a novel microdomain within the unique N-terminal region of the PDE4A1 cAMP-specific phosphodiesterase that allows rapid, Ca2+-triggered membrane association with selectivity for interaction with phosphatidic acid. *Journal of Biological Chemistry*, **2002**, 277, 28298-309 | 5.4 | 127 |
| 170 | Sub-family selective actions in the ability of Erk2 MAP kinase to phosphorylate and regulate the activity of PDE4 cyclic AMP-specific phosphodiesterases. *British Journal of Pharmacology*, **2000**, 131, 811-9 | 8.6 | 126 |
| 169 | Compartmentalization of cAMP-dependent signaling by phosphodiesterase-4D is involved in the regulation of vasopressin-mediated water reabsorption in renal principal cells. *Journal of the American Society of Nephrology: JASN*, **2007**, 18, 199-212 | 12.7 | 120 |
| 168 | Action of rolipram on specific PDE4 cAMP phosphodiesterase isoforms and on the phosphorylation of cAMP-response-element-binding protein (CREB) and p38 mitogen-activated protein (MAP) kinase in U937 monocytic cells. *Biochemical Journal*, **2000**, 347, 571-578 | 3.8 | 119 |
| 167 | The insulin receptor tyrosyl kinase phosphorylates holomeric forms of the guanine nucleotide regulatory proteins Gi and Go. *FEBS Letters*, **1987**, 212, 281-8 | 3.8 | 112 |
| 166 | Arrestin times for compartmentalised cAMP signalling and phosphodiesterase-4 enzymes. *Current Opinion in Cell Biology*, **2005**, 17, 129-34 | 9 | 110 |
| 165 | The cardiac IKs potassium channel macromolecular complex includes the phosphodiesterase PDE4D3. *Journal of Biological Chemistry*, **2009**, 284, 9140-6 | 5.4 | 108 |
| 164 | Challenge of human Jurkat T-cells with the adenylate cyclase activator forskolin elicits major changes in cAMP phosphodiesterase (PDE) expression by up-regulating PDE3 and inducing PDE4D1 and PDE4D2 splice variants as well as down-regulating a novel PDE4A splice variant. *Biochemical Journal*, **1997**, 321 ( Pt 1), 165-75 | 3.8 | 103 |
| 163 | p75 neurotrophin receptor regulates tissue fibrosis through inhibition of plasminogen activation via a PDE4/cAMP/PKA pathway. *Journal of Cell Biology*, **2007**, 177, 1119-32 | 7.3 | 102 |
| 162 | In resting COS1 cells a dominant negative approach shows that specific, anchored PDE4 cAMP phosphodiesterase isoforms gate the activation, by basal cyclic AMP production, of AKAP-tethered protein kinase A type II located in the centrosomal region. *Cellular Signalling*, **2005**, 17, 1158-73 | 4.9 | 97 |
| 161 | Association with the SRC family tyrosyl kinase LYN triggers a conformational change in the catalytic region of human cAMP-specific phosphodiesterase HSPDE4A4B. Consequences for rolipram inhibition. *Journal of Biological Chemistry*, **1999**, 274, 11796-810 | 5.4 | 97 |
| 160 | EPAC and PKA allow cAMP dual control over DNA-PK nuclear translocation. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 12791-6 | 11.5 | 96 |
| 159 | The SH3 domain of Src tyrosyl protein kinase interacts with the N-terminal splice region of the PDE4A cAMP-specific phosphodiesterase RPDE-6 (RNPDE4A5). *Biochemical Journal*, **1996**, 318 ( Pt 1), 255-61 | 3.8 | 96 |
| 158 | Phosphorylation-dependent interactions between ADAM15 cytoplasmic domain and Src family protein-tyrosine kinases. *Journal of Biological Chemistry*, **2002**, 277, 4999-5007 | 5.4 | 94 |
| 157 | UCR1 and UCR2 domains unique to the cAMP-specific phosphodiesterase family form a discrete module via electrostatic interactions. *Journal of Biological Chemistry*, **2000**, 275, 10349-58 | 5.4 | 92 |
| 156 | The human cyclic AMP-specific phosphodiesterase PDE-46 (HSPDE4A4B) expressed in transfected COS7 cells occurs as both particulate and cytosolic species that exhibit distinct kinetics of inhibition by the antidepressant rolipram. *Journal of Biological Chemistry*, **1996**, 271, 31334-44 | 5.4 | 89 |

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| 155 | Treatment of intact hepatocytes with either the phorbol ester TPA or glucagon elicits the phosphorylation and functional inactivation of the inhibitory guanine nucleotide regulatory protein Gi. *FEBS Letters*, **1989**, 243, 77-82 | 3.8 | 88 |
| 154 | The unique amino-terminal region of the PDE4D5 cAMP phosphodiesterase isoform confers preferential interaction with beta-arrestins. *Journal of Biological Chemistry*, **2003**, 278, 49230-8 | 5.4 | 86 |
| 153 | Membrane localization of cyclic nucleotide phosphodiesterase 3 (PDE3). Two N-terminal domains are required for the efficient targeting to, and association of, PDE3 with endoplasmic reticulum. *Journal of Biological Chemistry*, **2000**, 275, 38749-61 | 5.4 | 86 |
| 152 | Cyclic AMP-dependent transcriptional up-regulation of phosphodiesterase 4D5 in human airway smooth muscle cells. Identification and characterization of a novel PDE4D5 promoter. *Journal of Biological Chemistry*, **2002**, 277, 35980-9 | 5.4 | 85 |
| 151 | Structures of the four subfamilies of phosphodiesterase-4 provide insight into the selectivity of their inhibitors. *Biochemical Journal*, **2007**, 408, 193-201 | 3.8 | 84 |
| 150 | Mapping binding sites for the PDE4D5 cAMP-specific phosphodiesterase to the N- and C-domains of beta-arrestin using spot-immobilized peptide arrays. *Biochemical Journal*, **2007**, 404, 71-80 | 3.8 | 82 |
| 149 | Inferring signaling pathway topologies from multiple perturbation measurements of specific biochemical species. *Science Signaling*, **2010**, 3, ra20 | 8.8 | 81 |
| 148 | Action of rolipram on specific PDE4 cAMP phosphodiesterase isoforms and on the phosphorylation of cAMP-response-element-binding protein (CREB) and p38 mitogen-activated protein (MAP) kinase in U937 monocytic cells. *Biochemical Journal*, **2000**, 347, 571-8 | 3.8 | 81 |
| 147 | Small molecule AKAP-protein kinase A (PKA) interaction disruptors that activate PKA interfere with compartmentalized cAMP signaling in cardiac myocytes. *Journal of Biological Chemistry*, **2011**, 286, 9079-96 | 5.4 | 80 |
| 146 | Phosphorylation of RACK1 on tyrosine 52 by c-Abl is required for insulin-like growth factor I-mediated regulation of focal adhesion kinase. *Journal of Biological Chemistry*, **2009**, 284, 20263-74 | 5.4 | 79 |
| 145 | Rapid regulation of PDE-2 and PDE-4 cyclic AMP phosphodiesterase activity following ligation of the T cell antigen receptor on thymocytes: analysis using the selective inhibitors erythro-9-(2-hydroxy-3-nonyl)-adenine (EHNA) and rolipram. *Cellular Signalling*, **1996**, 8, 97-110 | 4.9 | 77 |
| 144 | Adaptation in cyclic AMP signalling processes: a central role for cyclic AMP phosphodiesterases. *Seminars in Cell and Developmental Biology*, **1998**, 9, 161-7 | 7.5 | 76 |
| 143 | Disrupted in schizophrenia 1 and phosphodiesterase 4B: towards an understanding of psychiatric illness. *Journal of Physiology*, **2007**, 584, 401-5 | 3.9 | 75 |
| 142 | Differential expression of PDE4 cAMP phosphodiesterase isoforms in inflammatory cells of smokers with COPD, smokers without COPD, and nonsmokers. *American Journal of Physiology - Lung Cellular and Molecular Physiology*, **2004**, 287, L332-43 | 5.8 | 75 |
| 141 | Cyclic AMP phosphodiesterase 4D (PDE4D) Tethers EPAC1 in a vascular endothelial cadherin (VE-Cad)-based signaling complex and controls cAMP-mediated vascular permeability. *Journal of Biological Chemistry*, **2010**, 285, 33614-22 | 5.4 | 72 |
| 140 | Remodelling of the PDE4 cAMP phosphodiesterase isoform profile upon monocyte-macrophage differentiation of human U937 cells. *British Journal of Pharmacology*, **2004**, 142, 339-51 | 8.6 | 72 |
| 139 | Alternative splicing of cAMP-specific phosphodiesterase mRNA transcripts. Characterization of a novel tissue-specific isoform, RNPDE4A8. *Journal of Biological Chemistry*, **1996**, 271, 1065-71 | 5.4 | 70 |
| 138 | Phorbol 12-myristate 13-acetate triggers the protein kinase A-mediated phosphorylation and activation of the PDE4D5 cAMP phosphodiesterase in human aortic smooth muscle cells through a route involving extracellular signal regulated kinase (ERK). *Molecular Pharmacology*, **2001**, 60, 1100-11 | 4.3 | 69 |

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| 137 | Molecular cloning, genomic positioning, promoter identification, and characterization of the novel cyclic amp-specific phosphodiesterase PDE4A10. *Molecular Pharmacology*, **2001**, 59, 996-1011 | 4.3 | 64 |
| 136 | MEK1 binds directly to betaarrestin1, influencing both its phosphorylation by ERK and the timing of its isoprenaline-stimulated internalization. *Journal of Biological Chemistry*, **2009**, 284, 11425-35 | 5.4 | 62 |
| 135 | Tyrosine 302 in RACK1 is essential for insulin-like growth factor-I-mediated competitive binding of PP2A and beta1 integrin and for tumor cell proliferation and migration. *Journal of Biological Chemistry*, **2008**, 283, 22952-61 | 5.4 | 62 |
| 134 | Identification of a surface on the beta-propeller protein RACK1 that interacts with the cAMP-specific phosphodiesterase PDE4D5. *Cellular Signalling*, **2001**, 13, 507-13 | 4.9 | 61 |
| 133 | Mdm2 directs the ubiquitination of beta-arrestin-sequestered cAMP phosphodiesterase-4D5. *Journal of Biological Chemistry*, **2009**, 284, 16170-16182 | 5.4 | 58 |
| 132 | Constitutive activation of Galphas within forebrain neurons causes deficits in sensorimotor gating because of PKA-dependent decreases in cAMP. *Neuropsychopharmacology*, **2007**, 32, 577-88 | 8.7 | 58 |
| 131 | Chemoresistant KM12C colon cancer cells are addicted to low cyclic AMP levels in a phosphodiesterase 4-regulated compartment via effects on phosphoinositide 3-kinase. *Cancer Research*, **2007**, 67, 5248-57 | 10.1 | 58 |
| 130 | Cross talk between phosphatidylinositol 3-kinase and cyclic AMP (cAMP)-protein kinase a signaling pathways at the level of a protein kinase B/beta-arrestin/cAMP phosphodiesterase 4 complex. *Molecular and Cellular Biology*, **2010**, 30, 1660-72 | 4.8 | 57 |
| 129 | The unique N-terminal domain of the cAMP phosphodiesterase PDE4D4 allows for interaction with specific SH3 domains. *FEBS Letters*, **1999**, 460, 173-7 | 3.8 | 56 |
| 128 | Phosphodiesterase 11A in brain is enriched in ventral hippocampus and deletion causes psychiatric disease-related phenotypes. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 8457-62 | 11.5 | 53 |
| 127 | Guanosine 5'-triphosphate and guanosine 5'-[beta gamma-imido]triphosphate effect a collision coupling mechanism between the glucagon receptor and catalytic unit of adenylate cyclase. *Biochemical Journal*, **1980**, 186, 649-58 | 3.8 | 53 |
| 126 | Oxygen-dependent cleavage of the p75 neurotrophin receptor triggers stabilization of HIF-1 *Molecular Cell*, **2011**, 44, 476-90 | 17.6 | 52 |
| 125 | 1H NMR structural and functional characterisation of a cAMP-specific phosphodiesterase-4D5 (PDE4D5) N-terminal region peptide that disrupts PDE4D5 interaction with the signalling scaffold proteins, beta-arrestin and RACK1. *Cellular Signalling*, **2007**, 19, 2612-24 | 4.9 | 51 |
| 124 | The role of ventral striatal cAMP signaling in stress-induced behaviors. *Nature Neuroscience*, **2015**, 18, 1094-100 | 25.5 | 50 |
| 123 | Cyclic AMP controls mTOR through regulation of the dynamic interaction between Rheb and phosphodiesterase 4D. *Molecular and Cellular Biology*, **2010**, 30, 5406-20 | 4.8 | 50 |
| 122 | PDE4B5, a novel, super-short, brain-specific cAMP phosphodiesterase-4 variant whose isoform-specifying N-terminal region is identical to that of cAMP phosphodiesterase-4D6 (PDE4D6). *Journal of Pharmacology and Experimental Therapeutics*, **2007**, 322, 600-9 | 4.7 | 49 |
| 121 | Noradrenergic activity differentially regulates the expression of rolipram-sensitive, high-affinity cyclic AMP phosphodiesterase (PDE4) in rat brain. *Journal of Neurochemistry*, **1997**, 69, 2397-404 | 6 | 49 |
| 120 | Phosphorylation of cAMP-specific PDE4A5 (phosphodiesterase-4A5) by MK2 (MAPKAPK2) attenuates its activation through protein kinase A phosphorylation. *Biochemical Journal*, **2011**, 435, 755-69 | 3.8 | 48 |

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| 119 | Identification and characterization of PDE4A11, a novel, widely expressed long isoform encoded by the human PDE4A cAMP phosphodiesterase gene. *Molecular Pharmacology*, **2005**, 67, 1920-34 | 4.3 | 48 |
| 118 | Protein kinase C isoforms play differential roles in the regulation of adipocyte differentiation. *Biochemical Journal*, **1998**, 333 ( Pt 3), 719-27 | 3.8 | 48 |
| 117 | Molecular cloning and subcellular distribution of the novel PDE4B4 cAMP-specific phosphodiesterase isoform. *Biochemical Journal*, **2003**, 370, 429-38 | 3.8 | 47 |
| 116 | Spatial organisation of AKAP18 and PDE4 isoforms in renal collecting duct principal cells. *European Journal of Cell Biology*, **2006**, 85, 673-8 | 6.1 | 46 |
| 115 | Dynamic regulation, desensitization, and cross-talk in discrete subcellular microdomains during beta2-adrenoceptor and prostanoid receptor cAMP signaling. *Journal of Biological Chemistry*, **2007**, 282, 34235-49 | 5.4 | 46 |
| 114 | Cyclic nucleotide phosphodiesterases in Drosophila melanogaster. *Biochemical Journal*, **2005**, 388, 333-43 | 3.8 | 46 |
| 113 | Determination of the structure of the N-terminal splice region of the cyclic AMP-specific phosphodiesterase RD1 (RNPDE4A1) by 1H NMR and identification of the membrane association domain using chimeric constructs. *Journal of Biological Chemistry*, **1996**, 271, 16703-11 | 5.4 | 46 |
| 112 | Molecular cloning and expression, in both COS-1 cells and S. cerevisiae, of a human cytosolic type-IVA, cyclic AMP specific phosphodiesterase (hPDE-IVA-h6.1). *Cellular Signalling*, **1994**, 6, 793-812 | 4.9 | 44 |
| 111 | Identification and characterization of the human homologue of the short PDE4A cAMP-specific phosphodiesterase RD1 (PDE4A1) by analysis of the human HSPDE4A gene locus located at chromosome 19p13.2. *Biochemical Journal*, **1998**, 333 ( Pt 3), 693-703 | 3.8 | 43 |
| 110 | Heterozygous mutations in cyclic AMP phosphodiesterase-4D (PDE4D) and protein kinase A (PKA) provide new insights into the molecular pathology of acrodysostosis. *Cellular Signalling*, **2014**, 26, 2446-59 | 4.9 | 41 |
| 109 | Phosphodiesterase inhibitors: factors that influence potency, selectivity, and action. *Handbook of Experimental Pharmacology*, **2011**, 47-84 | 3.2 | 41 |
| 108 | Ndel1 alters its conformation by sequestering cAMP-specific phosphodiesterase-4D3 (PDE4D3) in a manner that is dynamically regulated through Protein Kinase A (PKA). *Cellular Signalling*, **2008**, 20, 2356-69 | 4.9 | 41 |
| 107 | In addition to the SH3 binding region, multiple regions within the N-terminal noncatalytic portion of the cAMP-specific phosphodiesterase, PDE4A5, contribute to its intracellular targeting. *Cellular Signalling*, **2002**, 14, 453-65 | 4.9 | 41 |
| 106 | The cAMP-specific phosphodiesterase PDE4A5 is cleaved downstream of its SH3 interaction domain by caspase-3. Consequences for altered intracellular distribution. *Journal of Biological Chemistry*, **2000**, 275, 28063-74 | 5.4 | 41 |
| 105 | A high-fat diet promotes depression-like behavior in mice by suppressing hypothalamic PKA signaling. *Translational Psychiatry*, **2019**, 9, 141 | 8.6 | 40 |
| 104 | A phosphodiesterase 3B-based signaling complex integrates exchange protein activated by cAMP 1 and phosphatidylinositol 3-kinase signals in human arterial endothelial cells. *Journal of Biological Chemistry*, **2011**, 286, 16285-96 | 5.4 | 40 |
| 103 | Growth hormone and phorbol esters require specific protein kinase C isoforms to activate mitogen-activated protein kinases in 3T3-F442A cells. *Biochemical Journal*, **1997**, 324 ( Pt 1), 159-65 | 3.8 | 40 |
| 102 | Cholera toxin mediated activation of adenylate cyclase in intact rat hepatocytes. *FEBS Letters*, **1979** , 104, 359-63 | 3.8 | 39 |

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| 101 | Phosphodiesterase-8A binds to and regulates Raf-1 kinase. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, E1533-42 | 11.5 | 38 |
| 100 | Oxidative stress employs phosphatidyl inositol 3-kinase and ERK signalling pathways to activate cAMP phosphodiesterase-4D3 (PDE4D3) through multi-site phosphorylation at Ser239 and Ser579. *Cellular Signalling*, **2006**, 18, 2056-69 | 4.9 | 38 |
| 99 | Delineation of RAID1, the RACK1 interaction domain located within the unique N-terminal region of the cAMP-specific phosphodiesterase, PDE4D5. *BMC Biochemistry*, **2002**, 3, 24 | 4.8 | 38 |
| 98 | Regulation of adenylate cyclase (EC 4.6.I.I) activity by its lipid environment. *Proceedings of the Nutrition Society*, **1985**, 44, 157-65 | 2.9 | 38 |
| 97 | Mutations of beta-arrestin 2 that limit self-association also interfere with interactions with the beta2-adrenoceptor and the ERK1/2 MAPKs: implications for beta2-adrenoceptor signalling via the ERK1/2 MAPKs. *Biochemical Journal*, **2008**, 413, 51-60 | 3.8 | 37 |
| 96 | Intracellular targeting of phosphodiesterase-4 underpins compartmentalized cAMP signaling. *Current Topics in Developmental Biology*, **2006**, 75, 225-59 | 5.3 | 37 |
| 95 | The novel long PDE4A10 cyclic AMP phosphodiesterase shows a pattern of expression within brain that is distinct from the long PDE4A5 and short PDE4A1 isoforms. *Cellular Signalling*, **2001**, 13, 911-8 | 4.9 | 37 |
| 94 | Helix-1 of the cAMP-specific phosphodiesterase PDE4A1 regulates its phospholipase-D-dependent redistribution in response to release of Ca2+. *Journal of Cell Science*, **2006**, 119, 3799-810 | 5.3 | 36 |
| 93 | PDE4-regulated cAMP degradation controls the assembly of integrin-dependent actin adhesion structures and REF52 cell migration. *Journal of Cell Science*, **2004**, 117, 2377-88 | 5.3 | 36 |
| 92 | Diabetes-induced changes in guanine-nucleotide-regulatory-protein mRNA detected using synthetic oligonucleotide probes. *FEBS Journal*, **1990**, 193, 367-74 | | 36 |
| 91 | Small-molecule allosteric activators of PDE4 long form cyclic AMP phosphodiesterases. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 13320-13329 | 11.5 | 35 |
| 90 | Intracellular localization of the PDE4A cAMP-specific phosphodiesterase splice variant RD1 (RNPDE4A1A) in stably transfected human thyroid carcinoma FTC cell lines. *Biochemical Journal*, **1997**, 321 ( Pt 1), 177-85 | 3.8 | 35 |
| 89 | Insulin stimulates a novel GTPase activity in human platelets. *FEBS Letters*, **1987**, 216, 94-8 | 3.8 | 35 |
| 88 | Phosphodiesterase-4 influences the PKA phosphorylation status and membrane translocation of G-protein receptor kinase 2 (GRK2) in HEK-293beta2 cells and cardiac myocytes. *Biochemical Journal*, **2006**, 394, 427-35 | 3.8 | 34 |
| 87 | High-content screening of feeder-free human embryonic stem cells to identify pro-survival small molecules. *Biochemical Journal*, **2010**, 432, 21-33 | 3.8 | 33 |
| 86 | Selective SUMO modification of cAMP-specific phosphodiesterase-4D5 (PDE4D5) regulates the functional consequences of phosphorylation by PKA and ERK. *Biochemical Journal*, **2010**, 428, 55-65 | 3.8 | 33 |
| 85 | Occupancy of the catalytic site of the PDE4A4 cyclic AMP phosphodiesterase by rolipram triggers the dynamic redistribution of this specific isoform in living cells through a cyclic AMP independent process. *Cellular Signalling*, **2003**, 15, 955-71 | 4.9 | 33 |
| 84 | Changes in the phosphorylation state of the inhibitory guanine-nucleotide-binding protein Gi-2 in hepatocytes from lean (Fa/Fa) and obese (fa/fa) Zucker rats. *FEBS Journal*, **1990**, 192, 537-42 | | 33 |

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| 83 | The phorbol ester TPA inhibits cyclic AMP phosphodiesterase activity in intact hepatocytes. *FEBS Letters*, **1986**, 208, 455-9 | 3.8 | 33 |
| 82 | p75 Neurotrophin Receptor Regulates Energy Balance in Obesity. *Cell Reports*, **2016**, 14, 255-68 | 10.6 | 32 |
| 81 | Elucidation of a structural basis for the inhibitor-driven, p62 (SQSTM1)-dependent intracellular redistribution of cAMP phosphodiesterase-4A4 (PDE4A4). *Journal of Medicinal Chemistry*, **2011**, 54, 3331-47 | 8.3 | 31 |
| 80 | Hypoxia-induced remodelling of PDE4 isoform expression and cAMP handling in human pulmonary artery smooth muscle cells. *European Journal of Cell Biology*, **2006**, 85, 679-91 | 6.1 | 31 |
| 79 | Compartmentalized PDE4A5 Signaling Impairs Hippocampal Synaptic Plasticity and Long-Term Memory. *Journal of Neuroscience*, **2016**, 36, 8936-46 | 6.6 | 30 |
| 78 | PKA phosphorylation of p62/SQSTM1 regulates PB1 domain interaction partner binding. *Biochimica Et Biophysica Acta - Molecular Cell Research*, **2014**, 1843, 2765-74 | 4.9 | 30 |
| 77 | Lentivirus-mediated reprogramming of somatic cells in the absence of transgenic transcription factors. *Molecular Therapy*, **2010**, 18, 2139-45 | 11.7 | 30 |
| 76 | Nuclear pore complex remodeling by p75(NTR) cleavage controls TGF-β signaling and astrocyte functions. *Nature Neuroscience*, **2015**, 18, 1077-80 | 25.5 | 29 |
| 75 | Constitutive activation of the G-protein subunit Galphas within forebrain neurons causes PKA-dependent alterations in fear conditioning and cortical Arc mRNA expression. *Learning and Memory*, **2008**, 15, 75-83 | 2.8 | 29 |
| 74 | G-protein linked receptors: a family probed by molecular cloning and mutagenesis procedures. *Clinical Endocrinology*, **1992**, 36, 525-34 | 3.4 | 29 |
| 73 | p62 (SQSTM1) and cyclic AMP phosphodiesterase-4A4 (PDE4A4) locate to a novel, reversible protein aggregate with links to autophagy and proteasome degradation pathways. *Cellular Signalling*, **2010**, 22, 1576-96 | 4.9 | 28 |
| 72 | Eukaryotic translation initiation factor 3, subunit a, regulates the extracellular signal-regulated kinase pathway. *Molecular and Cellular Biology*, **2012**, 32, 88-95 | 4.8 | 27 |
| 71 | Aggregation of scaffolding protein DISC1 dysregulates phosphodiesterase 4 in Huntington's disease. *Journal of Clinical Investigation*, **2017**, 127, 1438-1450 | 15.9 | 26 |
| 70 | Insulin controls the cyclic AMP-dependent phosphorylation of integral and peripheral proteins associated with the rat liver plasma membrane. *FEBS Letters*, **1980**, 118, 18-24 | 3.8 | 25 |
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